



Enterprise and Business Committee

Horizon 2020 EU Framework for Research and Innovation

Briefing :

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1. Horizon 2020 proposals¹

1.1. Introduction

On 30 November 2011 the European Commission published legislative proposals which set out the legal framework for Horizon 2020, the EU Research and Innovation Programme for 2014–2020. These proposals will be discussed and negotiated in Brussels over the coming 12–18 months, and will determine the framework into which Welsh universities and businesses (in particular) will bid to try and secure EU research funding during the period covered.

Horizon 2020 will succeed the current Framework Seven Research Programme (FP7), and also brings in elements of the current Competitiveness and Innovation Research Programme (which provides a range of support aimed at SMEs, including loan finance). This means Horizon 2020 will be the primary source of EU level funding for research and development activities of universities, research centres and businesses within the EU. As the main financial instrument of the EUs [Innovation Union](#) ‘flagship initiative’ of the Europe 2020 strategy, this means it is the primary source of EU funding (outside of the structural funds) to support innovation activities in the EU economy.

The European Commission has proposed a budget of around **€80 billion** for the Horizon 2020 programme, which represents an increase of over 40% on the current funding to FP7 (approximately €52 billion).

1.2. EU decision-making process for agreeing the proposals

The Horizon 2020 proposals will be adopted through the ‘ordinary legislative process’ (co-decision), which requires agreement by the European Parliament and the Council of Ministers (i.e. Member State governments) on the final text, with the European Commission acting as broker.

The lead Committee in the European Parliament on these negotiations will be the [Industry Research and Energy Committee](#), which is Chaired by German Christian Democrat MEP Herbert Reul. There are no Welsh MEPs on this Committee. However, there are four UK MEPs, three members and one substitute².

Within the Council of Ministers the lead will be taken by the [Competitiveness Council](#). This Council has two meetings scheduled (21 February and 31 May) during the [Danish Presidency of the EU](#), and is expected to discuss the Horizon 2020 proposals at both meetings. UK Ministers (and officials) will represent Wales on the Competitiveness Council and in its working groups.

¹ See [DG Research web-site](#) .

² Progress of the dossier through the legislative process can be monitored on the European Parliament’s [Legislative Observatory web-site](#)

1.3. *Main elements of Horizon 2020*

The European Commission has proposed structuring Horizon 2020 around three strategic objectives:

- **Excellent science** – which aims to reinforce and extend the excellence of the European Union’s science base. This part consists of four specific objectives:
 - European Research Council (ERC) – to fund excellent research on the basis of pan-European competition
 - Future and Emerging Technologies (FET) – to promote the development of radically new technologies based on high-risk exploratory ideas
 - Marie Curie Actions – to support researcher training, cross-border and cross-sector mobility
 - Research infrastructure – to develop European research infrastructure
- **Industrial leadership** – which aims to maintain and build the European Union’s leadership in enabling technologies and space research and innovation. It is proposed to include support for:
 - Key Enabling Technologies (KETs) – Information and Communication Technologies (ICT), Nanotechnologies, Advanced Materials, Biotechnology, Advanced Manufacturing and Processing, and Space
 - Access to risk finance – providing a financial instrument for debt and a financial instrument for equity to improve the finance and risk profiles of research and innovation activities
 - Innovation in Small and Medium-Sized Enterprises (SMEs) – to mainstream SME support and promote market-oriented innovation.

The Industrial Leadership strategic objective brings together in Horizon 2020 the ‘innovation’ funding elements transferred from the current Competitiveness and Innovation Programme (CIP).

- **Societal challenges** – which aims to use research and innovation to address major societal concerns across the European Union. The European Commission proposes to focus funding six grand challenges, to support work across fields, disciplines and technologies, along the whole of the innovation chain:
 - Health, demographic change and well-being
 - Food security, sustainable agriculture, marine and maritime research and the bio-economy
 - Secure, clean and efficient energy
 - Smart, green and integrated transport
 - Climate action, resource efficiency and raw materials
 - Inclusive, innovative and secure societies

The ‘Societal Challenges’ largely replace the ‘thematic research’ priorities that are the focus of the current FP7 collaborative research projects. For Horizon 2020 the European Commission has placed a far greater emphasis on ‘multi-disciplinary’ research within this strategic objective than is currently the case in FP7.

In addition to these three strategic objectives the Horizon 2020 will also provide financial support to:

- **European Institute of Innovation and Technology (EIT)**, includes the work of integrating research, education and innovation through the EITs **Knowledge and Innovation Communities (KICs)**
- **Joint Research Centre**: to provide a scientific evidence base and technical support across each of the three strategic objectives of Horizon 2020.

A number of elements from FP7 have been moved out of Horizon 2020 into other EU policy/funding instruments. For example, actions to support widening of participation in EU research through the Regions of Knowledge and Research Potential of FP7, will be mainstreamed into the EU Structural Funds, whilst the European Commission has also included measures within the Erasmus for All (EU mobility support in field of education, training, youth and sport) to encourage knowledge alliances between academia and business.

The core aim of Horizon 2020 will be to support excellence in EU research and innovation, and access to funding will be through competitive calls managed centrally by the EU (or through its agencies). This means there will be no pre-allocation to Wales or any Member State. Welsh organisations seeking to secure funding through Horizon 2020 will need to win in these competitive rounds, in the vast majority of cases done through collaborative projects with partners from other parts of the EU (and potentially from outside of the EU).

Finally, the European Commission also states an objective to deliver simplification in Horizon 2020, through a single set of rules for applicants, simple models for cost reimbursements, a single point of access for participants, and reducing the average time to grant by 100 days.

1.4. UK Government view

The UK Government has prepared an Explanatory Memorandum (EM)³, which is broadly supportive of the European Commission’s draft proposals.

...The Government agrees that Horizon 2020 should play a central role in implementing the Europe 2020 strategy, notably the Innovation Union flagship initiative. It has the potential to help promote growth, quality of life and promoting sound, evidence-based policies at national and EU level. Overall, the Government considers that the Commission proposals are broadly in line with the UK’s priorities set out in a position paper published in May 2011. (Paragraph 34 of EM)

Although supporting a greater share of the overall EU budget going to research and innovation, the UK Government does not support the proposed increase in spending for

³ Published on 20 December 2011 – see [UK Cabinet Office web-site](#)
Enquiry no: 12/0137/ Gregg Jones/Anne
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Horizon 2020 describing this as ‘unrealistic and out of line with the need for greater budgetary restraint’ (paragraph 39 of EM).

The UK Government also broadly supports the proposed structure around the three strategic objectives and the proposals for each of these objectives, although it makes some suggestions for changes e.g. within the Industrial Leadership objective a ‘clearer focus on pre-commercial procurement as a means of stimulating innovation amongst SMEs’.

The UK Government also ‘broadly welcomes’ the proposals for greater synergies between Horizon 2020 and EU Structural Funds programmes, and supports the aims to make Horizon 2020 funds easier for SMEs, and the commitment to simplifying rules for participation.

1.5. Scottish Parliament inquiry

The Scottish Parliament’s European and External Relations Committee is undertaking an [inquiry](#) into the Horizon 2020 proposals. It launched a call for written evidence on 13 January with a deadline for contributions to be submitted by 24 February 2012.

There are no details available at this stage of the terms of reference of this inquiry.

2. Relevance to Wales

2.1. Underperformance in current EU research (and national) funding programmes

The European and External Affairs Committee of the National Assembly for Wales during the third Assembly carried out an [inquiry into Welsh participation in EU research, innovation and lifelong learning programmes](#). This found that Wales is underperforming in EU research programmes in particular compared to other parts of the UK and called for a more ‘strategic approach’ to help address this:

This inquiry found that there is definitely scope for Wales to —up its game, in particular in accessing funding from the Framework Programme for Research and Technological Development (FP7) to boost Welsh research capacity. A more strategic approach to encourage participation in all of these EU programmes will help to achieve both the Welsh Government’s strategic objectives and the shared European goal of significantly increasing R&D spend across the EU, as set out in the Europe 2020 strategy.

The Committee identified the need for ‘greater complementarity’ between different EU funding programmes, including synergies with EU Structural Funds programmes in Wales.

The Welsh Government [response to the inquiry](#) accepted all (some ‘in principle’) of the Committee’s recommendations.

The Enterprise and Learning Committee (Third Assembly) also identified similar issues during their [Inquiry into Science, Technology, Engineering and Mathematics \(STEM\) skills](#) (November 2010–January 2011). One of their recommendations was:

that the Welsh Assembly Government should ensure that Wales capitalises on non-domestic funding opportunities so that higher education institutions can work with local authorities and with high-tech industries in their areas on joint bids to develop innovative projects aimed at encouraging the take-up of STEM in education and employment.

The recommendation was accepted by the [Welsh Government](#), who said that this recommendation also complemented the findings of their own R&D Review Panel report. The Welsh Government's own R and D Review Panel report had recommended that:

the Assembly Government should provide advice and assistance to clients on external R&D programmes, work proactively to develop high quality bids, facilitate industry/academia links and proactively engage in the development of future frameworks e.g. EU Framework Programme 8.

2.2. *Synergies with EU Structural Funds*

During the ongoing inquiry into the draft legislative proposals for EU Structural Funds 2014–2020 the Enterprise and Business Committee has taken evidence on the prioritisation of funding for research and innovation, and related topics (low carbon/energy efficiency, and SME competitiveness).

This includes the concept of '**stairways to excellence**', and how EU structural funds can be used to develop research capacity to enable underperforming regions become better able to compete for mainstream research funding (be this from national or EU research programmes, or from private sector).

This point is particularly relevant given the thrust of the proposals from the European Commission is to focus Horizon 2020 exclusively excellence, and to use other EU funding programmes, in particular the EU Structural Funds, to support the policy objective of widening of participation in research. As noted above this represents a change from FP7 where some support for broadening access and developing regional potential is available.

3. **Potential opportunity for a future Committee inquiry?**

The Committee may wish to consider the value of undertaking a short and focused inquiry (2–3 evidence sessions) into the Horizon 2020 EU framework for research and innovation, for which proposals were published at end of November 2011. For example an inquiry could potentially look at the following sorts of issues:

- Reactions to the proposals from Welsh stakeholders, highlighting positive (including opportunities) and any negative elements to Wales
- Consider how relevant policy developments in Wales aimed at improving the research and science base, such as the draft Science Strategy and Regional Innovation Strategy (and other relevant Welsh Government policies) are focused on enhancing Welsh participation in EU research programmes
- Consider potential for synergies with the EU Structural Funds 2014–2020 aimed at supporting an improvement in the level of performance of Welsh HE and businesses in 2014–2020 period compared to current and previous EU research programmes

This could possibly be the first stage in a process that could see the Committee also considering during 2013 a follow-up inquiry on what preparations are underway in Wales in terms of 'gearing up' support to effectively participate in Horizon 2020, and linking this to the preparations for the future EU Structural Funds programmes (and other programmes as relevant – e.g. rural development and the maritime/fisheries funding).