

EU Policy Update (EU2012.02):

Horizon 2020

Updated: 09 February 2012

Summary of main points in proposals

Introduction

On 30 November 2011 the European Commission published proposals for a new Research and Innovation Programme for 2014-2020, **Horizon 2020**, intended to support delivering the Europe 2020 goals of smart, sustainable and inclusive growth. In particular this is focused on the R&D target spend of 3% of EU GDP by 2020.

The **Horizon 2020** programme brings together the current Framework Research Programme and the Competitiveness and Innovation Programme, as well as support for the new **European Institute for Innovation and Technology** (established in 2008).

Europe 2020

Horizon 2020 is explicitly aligned towards delivering the Europe 2020, the EU's headline strategy for smart, sustainable and inclusive growth. In particular **Horizon 2020** is focused on supporting achievement of the headline target on research (3% of GDP by 2020), and is viewed as one of the core EU financial instruments to support the implementation of the Innovation Union flagship initiative.

Proposed budget €17.3 billion

A budget of around **€80 billion** (an increase of over 40% compared to the 2007-2013 funding) is proposed for **Horizon 2020**, the bulk of which will go towards funding research.

Structure of the new programme

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

- **Excellent science:** 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:** 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 that have been transferred from the current Competitiveness and Innovation

Programme (CIP).

- **Societal challenges:** aims to use research and innovation to address major societal concerns across the European Union. Six 'grand challenges' are identified:
 - 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, seeking to support work across fields, disciplines and technologies, along the whole of the innovation chain.

In addition to these three strategic objectives the **Horizon 2020** will also continue to 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).

Timing and legislative process

The draft proposals will go through the 'ordinary legislative procedure', which requires agreement by the Council of Ministers and European Parliament on the final text. This process is likely to take around 18-24 months (although it is difficult to be precise on this) and the details of the proposals may change during these negotiations.

Background context to proposal

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, aimed at supporting the achievement of the 3% of EU GDP target for R&D spending by 2020. As the main financial instrument of the EU's **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.

Since 2000 one of the key drivers behind EU R&D policy has been establishing the **European Research Area (ERA)**, with the aim of overcoming an identified

'fragmentation' of research effort across the EU, to enable Europe to compete more effectively on the international arena.

The European Commission launched a **public consultation** to inform the preparation of the proposals for **Horizon 2020** in February 2011 which closed in May 2011. There were almost 900 submissions, including the **Welsh Higher Education (HE)** sector, which was one of 90 from the UK.

Amongst the drivers behind the **Horizon 2020** proposals has been work to improve synergies between EU funding programmes, in particular EU Structural Funds and EU Research funding, and against the backdrop of high public deficit and austerity measures at national level; focusing on overcoming fragmentation (as already noted); focusing on delivering growth (in particular the 'smart' growth of Europe 2020); and building international competitiveness in the context of the ongoing economic and financial crisis.

This also links into the wider debate on the EU Budget, with a number of Member States (e.g. UK, Sweden and Denmark), wishing to see a greater emphasis in the EU Budget on supporting research and innovation rather than agriculture.

Relevance to Wales

The new **Horizon 2020** programme will be of particular interest to the HE and business sectors in Wales, although there is also potential for local authorities, NGOs and other bodies to become involved in the various elements of **Horizon 2020**.

Welsh universities have been active in participating in the current and previous EU Framework Research Programmes, with Cardiff University the most successful, reflected in the celebratory event planned on 21 March to mark its 100th Framework Programme project.

However, 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**, and this concluded that in general Wales is underperforming in EU research programmes in particular compared to other parts of the UK. This Committee 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, which 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.

Synergies with EU Structural Funds

The draft legislative proposals for EU Structural Funds 2014-2020 the Committee place a strong emphasis on supporting research and innovation in the future operational programmes, through 'thematic' concentration of spending on a minimum number of priorities (which for ERDF also includes low carbon/energy efficiency, and SME competitiveness).

One of the concepts being promoted by the European Commission is the idea of 'stairways to excellence', where EU structural funds are used to develop research and innovative 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.

The Enterprise and Business Committee is likely to undertake an inquiry into **Horizon 2020** over the coming months, which is expected to have a particular focus on the concept of 'stairways to excellence' and how to improve Welsh performance in the future.

UK Government position

The UK Government published an Explanatory Memorandum (EM)¹ on 20 December 2011 setting out its reaction to the Commission's proposals.

The UK Government EM 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 **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 Available on the [UK Cabinet Office web-site](#)

Welsh Government position

The Welsh Government has not yet published a position on the **Horizon 2020** proposals, although we understand that it is formulating its position to feed into the UK line in the negotiations.

In its **response** to the EU Budget review (page 4, April 2008) it said :

...spending on skills and training, research and development and on innovation should be increased.

However, it also called (page 5) for the future Research Programme to be

could be simplified and improved, particularly for the benefit of Small and Medium Enterprises (SMEs).

The Welsh Government has stated in its **Programme for Government** that it wants to transform the HE sector so that it supports the economy in Wales, and to increase the links between academia and businesses.

In the context of the current reconfiguration of the HE system in Wales, the Minister for Education has said that Wales need to **'think big' on research** to ensure that its institutions are not left behind.²

The Welsh Government's strategy and plan for higher education in Wales, **For Our Future - The 21st Century Higher Education Strategy and Plan for Wales**, published November 2009, recognises that the research base in Wales has lagged behind the rest of the UK, particularly in science, technology engineering and mathematics and despite some internationally recognised examples of excellence. In the Plan, the Welsh Government states that they want research to thrive and be effective. In their **Remit Letter 2011-2012** to the Higher Education and Funding Council, the Welsh Government quote For our Future reiterating that leaving the current research base unchanged would "pose a significant risk to Wales's future

² [Welsh Government web-site](#)

economic prosperity". In May 2010, the Welsh Government had appointed Professor John Harries as the first Chief Scientific Adviser for Wales. A National Science Academy for Wales was also established at the same time. A new **Science Strategy** is due to be published shortly.

The Welsh Government has a number of programmes which aim to support the commercial potential of Wales' Higher and Further Education Institutions; Academic Expertise for Business (A4B) is a six year, £70m programme including Convergence funding, which includes support for the commercialisation of academic IP (Intellectual Property) and Knowledge Transfer Partnerships.

The Welsh Government's **Economic Renewal: a new direction (July 2010)**, outlines a focused policy, targeted at specific key sectors. They say "Economic Renewal will see a fundamental shift away from direct and generic support for companies to a focus on creating the right environment for businesses to succeed." This targeted sector approach also underpins **Skills for Economic Renewal** and builds on the Welsh Government's major skills strategy **Skills that Work for Wales**.

Progress of dossier in EU institutions

This section will be updated as the negotiations take place in Brussels and the official positions of the EU Institutions become clear.

Monitoring the dossier

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 progress of the dossier through the EU decision-making process can be followed on two web-sites

(both hyperlinks take you direct to the Erasmus for All dossiers):

- [European Parliament's Legislative Observatory](#)
- [European Commission's Pre-Lex web-site](#)

Note: these pages will contain info on the broad EU level discussion, but will not contain specific information on the UK/Welsh positions/interests on the dossiers. We will pick up on the latter in the sections below.

European Parliament:

The lead committee will be the **Industry, Research and Energy Committee** which is chaired by German MEP Herbert Reul (European People's Party - EPP, centre-right, and the largest political group in the European Parliament). There are no Welsh MEPs on this Committee. However, there are four UK MEPs, three members and one substitute.

This Committee held an **exchange of views** with the EU Commissioner for Research, Maire Geoghan-Quinn on 30 November 2011.

The two rapporteurs for **Horizon 2020** were appointed on 20 January 2012. They are:

- **Horizon 2020 Regulation:** Spanish MEP Teresa Riera Madurell (Socialists and Democrats)
- **Horizon 2020 Rules for Participation:** German MEP Christian Ehler (European People's Party)

Council of Ministers:

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.

Others:

- [European Universities Association \(EUA\)](#)
- [LERU \(League of European Research Universities\)](#)
- [CBI](#)

Links to web-sites summarising a range of reactions:

- [Exquisite Life web-site](#)
- [Science Business web-site](#)

Further information

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