

European & External Affairs Committee

EUR(2) 05-05 (p5)

Date: 16 June 2005

Time: 9.00 - 12.30

Venue: Committee Rooms 3 and 4, National Assembly for Wales

Title: Outlook for the new EU Framework Programme for Research and Development (FP7)

Purpose

To update Committee Members on the ongoing negotiations on the new EU Framework Programme for Research, Technological Development and Demonstration activities (FP7 2007-2013), which will supersede the current 4-year programme, FP6.

Summary / Recommendations

Members are invited to note this report.

Background

The Framework Programme offers financial support across the European Union and selected external countries for cross-border science and technology projects. Support is available on a competitive basis to a range of public and private actors including universities and businesses.

The proposal for FP7 2007-2013, launched by the Commission on 6 April, invites the other EU institutions to consider a doubling of the current FP6 budget, earmarking around €10 billion per year to European science and technology.

The new programme proposes an extended cycle of 7 years matching other EU funding cycles, including the Structural Funds, that would add up to a global EU engagement of €73 billion over FP7's lifetime. The proposed increased funding accompanies more focused efforts to achieve the Lisbon goals of improved competitiveness and growth, with knowledge creation at the core of this. The Barcelona European Council set the target of a research & development (R&D) spend of 3% of EU GDP by 2010, two-thirds of this to come from the private sector.

Final agreement on FP7 depends on the outcome of ongoing negotiations on the overall EU budget

(Financial Perspective). However, it is fair to say that member states are committed to a healthy FP7 budget as part of a general effort

FP7 Orientations

to boost the EU's research capacity and reduce the gap with its neighbours, in particular Japan and the US.

FP7, consistent with its predecessors, will promote European excellence in science and technology and foster world-class expertise across the research and business community of the EU.

The themes of FP7 "correspond to major fields of advancement of knowledge, promising scientific and technological avenues which are today opening up, as well as the many social, economic and industrial issues Europe is facing".

To enhance the link between the EU programme and industrial competitiveness, in the run-up to FP7, industry has been given a major role in agenda-setting. Twenty-two industry-led "European Technology Platforms" have been contributing to strategic road-maps for spending under FP7, to help reflect the current and future needs of the EU economy and society in terms of research investment.

FP7, akin to its predecessor, is a large programme with multiple components. The table in annex 1 illustrates how it is organised, gives a broad idea of the science and technology themes addressed, and the funding allocated to each component. The main novelties are a new theme on security and space research and a more substantial financial commitment to basic research governed by a proposed new European Research Council.

Science and technology themes are organised in nine blocks including: Health; Food, agriculture & biotechnology; Information & communication technologies, Nanosciences; Energy; Transport; Environment & Climate Change. However, other key cross-cutting areas include these: support for the training and mobility of researchers (e.g. individual fellowships), cooperation with third countries, coordination of national or regional research programmes, support for infrastructures of European significance, research to improve the evidence base for policy-making, and a new initiative to help regions establish their own science and research strategies, "Regions of Knowledge".

Significance for Wales

FP7 is relevant to Welsh actors as an opportunity to develop their strengths through international co-operation, with spin-offs for innovative products and services in the longer term. Importantly, it is one of relatively few sources of funding for cross-border collaboration in research matters.

Welsh universities and Wales-based research institutes have engaged with the opportunities of the EU research framework programme since its inception more than two decades ago, and some local agencies and authorities have engaged as partners on topics such as transport and ICT. SMEs in Wales have a less

prolific record of participation. Simpler procedures and initiatives better tailored to SME capacities - key objectives under the FP7 negotiations - may encourage greater SME involvement. In Wales, the Innovation Relay Centre plays an important role with respect to guiding Welsh SMEs towards the opportunities of the Framework Programme and matching them with relevant consortia and expertise.

A small sample of successful projects with Welsh involvement, intended to illustrate the breadth of actors to whom it applies, is cited in Annex 2.

The programme is highly competitive. Cross-border consortium building and proposal writing require considerable time and expertise. Proposal success rates vary by topic. A mid-term report on FP6 (the Marimon report) suggested that success rates in the first year of FP6 ranged from high (almost 1 success per 2 proposals) to extremely low (1 success per 26 proposals). It concluded that on average they are not very different from those of the past or of other funding agencies, but that costs and risks are significantly greater. An indication of costs and risks from a Welsh perspective (Cardiff University) has already been given during the discussion of item EUR(2) 04-05-Paper 4 at the meeting of this committee on 12 May. However costs are extremely variable across EU proposals.

It is difficult to ascertain with precision the record of Welsh participation across the history of the framework programme because some institutions have not as a matter of policy captured data relating solely to success under this particular research funding stream. (One external estimate of Welsh participation rates and the financial benefit accrued under FP5 is shown in annex 3.) However, it is clear from feedback from those universities most active in the programme that the ability of an institution to pursue Framework Programme opportunities is not only related to the excellence and experience of its researchers and their departments, but to the institution's ability to bear the substantial risks related to these opportunities – both at the proposal development stage and afterwards when a contract is signed with the Commission. This is true especially in relation to projects necessarily involving wide consortia (Integrated Projects and Networks of Excellence being two such project types).

Leading on larger projects may therefore not be an option for smaller departments and their institutions. That said, simply having the resources for proposal development is by no means the guarantee of success. Recognising this, institutions across the UK and beyond have increasingly taken the strategic approach, endorsing academic participation only where clear strengths may mitigate the risks.

Other programmes relevant to research and innovation

FP7 does not fund near-market activities. Support for this, where considered a priority and where market factors or the local context justify this, is provided by other programmes.

The European Commission recently proposed a brand new Competitiveness and Innovation framework Programme (CIP 2007-2013), which builds on existing programmes, targeting fields where policies and/or the market need strengthening. It has a projected budget of €4.2 billion. SME support will complement that of FP7.

In Wales, there has been significant uptake of research and innovation funding under the Objective 1 programme. While the Framework Programme finances scientific excellence and activity with a potential European (or global) impact, the Structural Funds builds research and innovation capacity for the benefit of the lesser-favoured region in question. Both elements are important in the context of efforts to build the Welsh knowledge economy and society.

UK position on FP7

The UK published a position paper on FP7 after wide consultation of stakeholders. The Assembly Government contributed to this consultation. Three key objectives for the UK are: raising the EU's capacity to conduct the very best research, improving industrial competitiveness and ensuring EU policies are properly supported by research.

The UK strongly endorses the idea of increasing EU research and innovation capacity as a driver for business and economic growth. This is a key objective as it takes up the EU Presidency baton. Like other member states, the UK backs simplification of the framework programme (procedure and instruments). It is also a strong proponent of the new European Research Council, which will have independence on matters relating to the management of high quality basic research.

During its Presidency of the EU the UK will hold an informal Competitiveness Council – a meeting of EU Research and Industry Ministers – in Cardiff from 11-12 July. Discussions between ministers aimed at accelerating progress on FP7 will form a key part of the business of the Informal Council.

Welsh Assembly Government Position

The increasing emphasis given to the research and innovation agenda is highly relevant for Wales in the context of the Winning Wales strategy, in particular initiatives under Wales for Innovation. The Technium and Centres of Excellence networks, the Wales Gene Park, and the Institute of Life Sciences are examples of Wales moving forward with this agenda.

The Assembly Government backs the UK's three main objectives in the FP7 negotiations (building EU research capacity, industrial competitiveness and research at the service of policy).

The move to simplify the Framework Programme will be welcomed by practitioners. . A helpful addition to FP7 is the "Research Potential" theme, which will aim to build the potential of the "convergence regions". This may help obtain better synergies with structural funding, and it is hoped that this pattern will be repeated with respect to the new Competitiveness and Innovation Programme.

A welcome innovation under FP7 is the inclusion of the "Regions of Knowledge" theme, which will support regional efforts to capitalise on their science and technology strengths in a more focused way. The Assembly's work in relation to the "Knowledge Economy Nexus" report including the Welsh

science/research strategy falls into this category of activity.

Discussions in Brussels

The Framework Programme will be agreed by Council and Parliament in co-decision. Two other proposals will be issued in the course of this year/early next year encompassing the detailed activity under each block of FP7 (the "specific programmes") and eligibility and procedural issues (the "rules for participation").

Council discussions have made progress under the Luxembourg EU Presidency, and the work will continue under the UK and Austrian Presidencies. So far, initial discussions in Council indicate a generally positive reaction to the Commission proposal. Member state officials have been engaged in an exchange of views on the general themes proposed (as per annex 1).

The European Parliament had its first exchange of views on 20th April.

Agreement on all legislative proposals will have to be reached by autumn 2006 in order for FP7 to be launched at the end of next year, with the first funding opportunities in 2007.

Rt Hon Rhodri Morgan AM

First Minister

Annex 1

Seventh Framework Programme (2007-2013): Priority and themes

Co-operation	Themes	Indicative funding (billion €s)
	Health	8.317
	Food, Agriculture and Biotechnology	2.455
	Information and Communication Technologies	12.670
	Nanosciences, Nanotechnologies, Materials and new Production Technologies	4.832
	Energy	2.931
	Environment (including Climate Change)	2.535
	Transport (including Aeronautics)	5.940

	Socio-economic Sciences and the Humanities	0.792
	Security and Space	3.960
Total		44.432
Ideas	European Research Council	11.862
People	Marie Curie Actions	7.129
Capacities	Research Infrastructures	3.961
	Research for the benefit of SMEs	1.901
	Regions of Knowledge	0.158
	Research Potential	0.554
	Science in Society	0.554
	Activities of International Co-operation	0.358
Total		7.486
Non-nuclear actions of the Joint Research Centre		1.817
TOTAL EC		72.726

Annex 2: Sample of Welsh Involvement in EU Research Framework Projects

Title and description	Topic	Partner (*Lead Partner)
FP6		
TAI-CHI: Tangible Acoustic Interfaces for Computer-Human Interaction	Multimodal interfaces	*Cardiff University
QLIF: Quality Low Input Food. Quality, safety and productivity along the organic / "low input" food supply chains.	Food safety and quality	IGER, Aberystwyth
GISEUE: Deepening and Widening of the European Union	International relations / politics	*UW Swansea

ALLADIN: Natural Language based decision support in neuro-rehabilitation	e-Health	Cardiff University
AquaETreat. Improvement and innovation of aquaculture effluent treatment technology [SME projects "Collective research"]	Aquaculture / water treatment	UW Swansea,
Broadwan: Universal hybrid broadband access networks for fixed and nomadic users	Broadband for all	Cardiff University
CETRAD: Co-ordination Action on Education and Training in Radiation Protection and Radioactive Waste Management	Education & Training	*Cardiff University
MTCP: Maritime Transport Co-ordination Platform	Maritime transport Co-ordination Platform	Cardiff University
BIOSPEC Marie Curie (3 host fellowships)	Environmental / sustainable development	Glamorgan University
REMOVAL: Reduction, modification and valorisation of sludge	Environment / waste	Glamorgan University
BIOSECURE: Biometrics for Secure Authentication	Towards a global dependability and security framework	UW Swansea
CoreGRID: Foundations, Software Infrastructures and Applications for large scale distributed, Grid and Peer-to-Peer Technologies	Scientific Research, Information Processing, Information Systems	Cardiff University
FP5		
Dynamics of polymeric liquids; the relation between fluid structure, properties and performance	Access to Large Scale facilities – Training and Research Mobility	UW Aberystwyth, UW Swansea
EUROCAT: The Catalogue of Life : Biodiversity Resource and e-Science Gateway	Climate and global change research facilities	National Museums and Galleries of Wales, and Cardiff University.
POWERFLAN 2: Fuel blend properties / boilers and simulation rigs	Biomass / Biowaste	Glamorgan University

Improved health care provision through the development of an automated process for high-level recombinant protein production in mammalian cells	The "Cell factory"	*Identigen (Port Talbot). Biodiscovery (Swansea). UW College of Medicine
CBD-hybrids. Development of biotechnological tools to modify cellulosic fibres	The "Cell factory"	UW Swansea
BEASTS: Boosting the Economy by Assisting SMEs in the Tourism Sector		*Wales Digital College . Other Welsh Partners: National Library of Wales, S4C, Wales Tourist Board
Canadian European Research Initiative On Nanostructures-2	Nanotechnology	Cardiff University
GRASP Development of ryegrass allele-specific markers for sustainable grassland improvement	Agriculture / environment	IGER
Technology, Economics and Diversity in the Periphery	Social & business models for multimedia content	*UW Bangor
EUNITE: European Network on Intelligent Technologies for Smart Adaptive Systems	(Micro-)Electronics, Information Processing and systems, Legislation, Regulations, Policies	UW Aberystwyth
Pooling of European data to harmonise transnational research in breast cancer	Life Sciences, Medicine, (Public) Health, Social Aspects, health services research	University of Wales College of Medicine, and Cardiff University.
Thematic network around cystic fibrosis and related diseases	The "Cell factory" Biotechnology, Environmental Protection, Technology Transfer, Life Sciences, Medicine, Health, Waste Management	UW Swansea
FP4		

Coates spherical rotary valve combustion engine design to replace camshafts and poppet valves	Transport	Europus Ltd, Kaye (Presteigne) Ltd (Powys), Plasma & Thermal Coatings Ltd (Newport)
Development of a real-time intelligent diagnosis tool for a large technical applications	Emerging Software Technologies	Mitime Limited (Swansea), UW Swansea

Abbreviations: UW University of Wales; IGER Institute of Grasslands and Environmental Research

Annex 3: Estimate of Welsh participation in FP5

FP5 Programme theme	Number of instances of participation	Number of contracts with at least one participation by Wales	EC financial contribution for FP5 (€s)
LIFE	80	71	14, 402,650
IST	54	42	9,263,484
GROWTH	66	62	6,749,329
EESD	52	50	7,768,699
INCO II	16	16	2,284,119
INNOVATION SME	5	4	849,835
EURATOM	7	7	942,377
IMPROVING	30	29	2,995,099
Total	310	281	45,255,592

Totals for the whole of the UK and over the whole of FP5

FP5 Programme theme	Number instances of participation		Number of contracts with at least one participation		EC financial contribution for FP5 UK region partners (€s)	
	UK	FP5	UK	FP5	UK	FP5
LIFE	2,136	14,106	1,294	2,318	439,280,411	2,281,947,417
IST	2,116	17,366	1,215	2,654	533,944,643	3,423,893,001
GROWTH	2,460	17,764	1,115	2,105	477,398,125	2,859,999,100
EESD	1,789	14,318	935	1,860	288,526,201	1,964,754,584
INCO II	280	3,632	231	1,015	36,310,504	455,827,432
INNOVATION SME	80	864	54	138	14,900,104	136,101,451
EURATOM	321	2,997	201	1,015	39,737,820	497,258,182
IMPROVING	1,640	8,477	1,352	3,637	149,795,889	842,751,391
Total	10,867	79,747	6,429	1,4857	1,983,537,953	12,475,975,162