

Summary points of interest

New European Liaison Officer Course, Brussels, 7-8th Feb 2013
Jennefer Adams

What is Horizon 2020?

- Commission proposal for a 70 billion euro research and innovation funding programme (2014-2020)
- A core part of Europe 2020, Innovation Union & European Research Area:-
 - Responding to the economic crisis to invest in future jobs and growth
 - Addressing people's concerns about their livelihoods, safety and environment
 - Strengthening the EU's global position in research, innovation and technology

What's new (or not) in Horizon 2020?

- **A single programme** – 3 priorities
 1. Excellent science
 2. Industrial leadership
 3. Societal challenges
- **Coupling research to innovation** – from research to retail, all forms of innovation
- **Focus on societal challenges** facing EU society, e.g., health, clean energy and transport
- **Simplified access**, for all companies, universities, institutes in all EU countries and beyond
Especially SMEs
- **Increased SME budget to 20%** of total for societal challenges and industrial leadership schemes
Europe needs to attract more private investment in Research and Innovation
- **Interdisciplinary work programmes in the Health Call**
- **Simplified finances** – 100% direct costs + flat rate of 20/25% indirect rate (ie 20/25% of direct costs)
- **Reduced time** from award to start date
- **ERC** will probably remain the same **with focus on starter and consolidator**
- **Draft work programmes** could be ready by **summer 2013**. It is also understood that a non-binding version of the Work Programmes could be made publically available around this time
- This means that the Work Programmes could be published and the **first Horizon 2020 calls launched by November or December 2013**.

All still a work in progress – discussions still happening between the European Parliament, Council and European Commission – eg specific work programmes, budgets etc.

Overview of European funding

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European funding until the end of 2013

FP7

7-year programme (2007 -2013)

- New Calls for Proposals each year
- Total budget of €50 521 million

Structured into four main 'Specific Programmes'

- **Co-operation**
- **Capacities**
- **People (Marie Curie Actions)**
- **Ideas (European Research Council, ERC)**

FP7 Overview	Co-operation	
	Health	
	Food, Agriculture, Fisheries and Biotechnology (FAFB/KBBE)	
	Information and Communication Technologies (ICT)	
	Nanosciences, Nanotechnologies, Materials and new Production Technologies (NMP)	
	Energy	
	Environment (including Climate Change)	
	Transport	
	Socio-Economic Sciences and the Humanities (SSH)	
	Space	
Security		
	Ideas (ERC)	
	Starting Independent Research Grants	
	Consolidator Grants	
	Advanced Investigator Grants	
	Proof of Concept (<i>for existing grant holders only</i>)	
	ERC Synergy Grants	
	CSAs/Calls for Tender on ERC	
	People (Marie Curie)	
	Individual Fellowships & Career Integration Grants	
	Initial Training Networks, Innovative Doctoral Programmes, European Industrial Doctorates	
	Industry-Academia Partnerships and Pathways	
	International Research Staff Exchange Scheme	
	COFUND and Researcher's Night	



Who is eligible for funding?

EU-27

Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Ireland, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, UK

Associated Countries (FP7)

Albania*, Bosnia and Herzegovina *, Croatia*, FYR Macedonia*, Iceland*, Israel*, Liechtenstein*, Montenegro*, Norway*, Serbia*, Switzerland, Turkey*, Faroe Islands

FP7 Co-operation Programme

- Aims: to build research collaborations across Europe & beyond
- Research areas: Top-down, priority driven research in ten themes.
- Calls: Annual Work Programmes specify call topics under each theme.
- Project types:
 - Collaborative Projects
 - Networks of Excellence
 - Co-ordination and Support Actions
- Funding can cover: research, demonstration, training, technology transfer, dissemination, networks, working with (some) non-EU countries, policy, emerging topics

FP7 Co-operation	Summary of Co-operation Themes in 2013			
	Theme	Budget (M€)	Number of Calls	Deadline
	Health	819.3	2	25 September 2012 2 October 2012
	Food, Agriculture, Fisheries and Biotechnology	396	2	5 February 2013 7 February 2013
	ICT	1547	12	From 23 October 2012 until 10 December 2013
	NMP	601.7	11	23 October 2012 4 December 2012
	Energy	342	4	4 December 2012 28 November 2012 8 January 2013 24 January 2013
	Environment (including climate change)	330	5	From 16 October 2012 until 4 April 2013
	Transport (including Aeronautics)	285.4	6	4 October 2012 14 November 2012 29 March 2013
	Socio-economic Sciences and Humanities	98	2	31 January 2013
Space	126	1	21 November 2012	
Security	299	1	22 November 2012	

Calls in red are still open

FP7 Ideas (European Research Council)

Funds:

- A Principal Investigator (PI) and (if necessary) team members to do frontier research. The team is normally based at the same institution as the PI.
- No nationality or mobility requirements. PI must be based in an EU Member State or Associated Country.
- Research areas: Bottom-up, across all fields of research, on the basis of scientific excellence.

Project types:

- Starting Grants (PI normally 2-7yrs from PhD, up to €2m over 5 yrs)
- Consolidator Grants (PI normally 7-12yrs from PhD, up to €2.75m over 5 yrs)
- Advanced Grants (For leading investigators, up to €3.5m over 5 yrs)
- Synergy Grants (new pilot -limited call budget) (2-4 PIs, up to €15m over 6 yrs)
- Proof of Concept (new, existing ERC grant holders only)
- Co-ordination and Support Actions

FP7 People – Marie Curie Actions

- Support the mobility, training and career development of researchers of all nationalities
- They fund **all domains** of research (bottom-up approach) and the financing rate is **100%**
- UK does very well - €342 million for ITN, almost half the budget.

Apply for your own fellowship or Apply to a project

8 Actions		
Marie Curie Action		Objective
Initial training of researchers (1900 M€)	Initial Training Networks (ITN)	Improve career perspectives of early stage researchers (ESR) in both public & private sector
Life-long training and career development (1170-1400 M€)	Intra-European Fellowships (IEF)	Career development of experienced researchers (ER) (e.g. diversification of skills/competencies; integrate a stable position after mobility)
	Career Integration Grants (CIG)	
	Co-funding of regional, national, international programmes (COFUND)	
Industry dimension (250-450 M€)	Industry-Academia Partnerships and Pathways (IAPP)	Open and foster dynamic pathways between public research organisations and private research commercial enterprises
International dimension World fellowships (1170-1400 M€)	International Outgoing Fellowships (IOF)	Reinforce the extra-European dimension of the European Research Area (ERA) through mobility, training, knowledge transfer and cooperation
	International Incoming Fellowships (IIF)	
	International Research Staff Exchange Scheme (IRSES)	

Only CIG, IEF, IOF and IIF remaining in FP7

Non-FP Funding – mainly non-research related activities eg networking

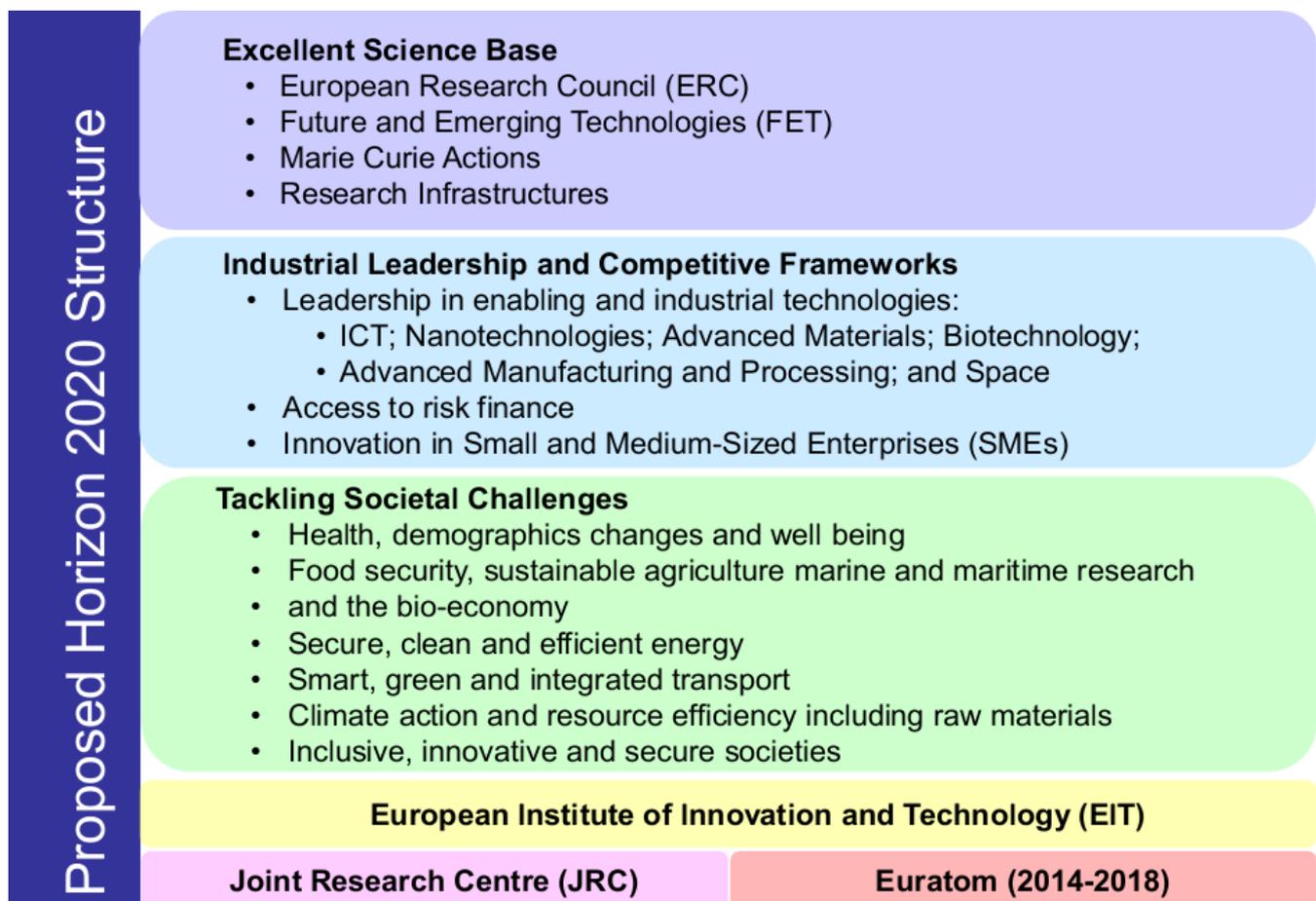
- CIP (EIP, Eco-Innovation, IEE II, ICT PSP)
- Education, LLP, Erasmus for All
- SSH (DGs Justice, Home and Employ)
- Energy (Research Fund for Coal and Steel)
- Environment (Life, Life+, Civil Protection Financial Instrument)
- Transport (Marco Polo)
- Health
 - Runs from 2008-2013
 - Budget 321.5 Million Euro
 - Objectives:
 - to improve citizens' health security;
 - to promote health, including the reduction of health inequalities;
 - to generate and disseminate health information and knowledge.
 - Annual calls for projects, operating grants, joint actions and conferences + tenders
 - Co-financing 60%
- COST – Actions (European Cooperation in the field of Scientific and Technical Research) support co-ordination of scientific networks and dissemination of their results

Nationally funded projects (min. 5 signatories) with a joint work programme receive finance for:

- Science management meetings
- Scientific workshops and seminars
- Short Term Scientific Missions (STSMs)
- Training Schools and Research Conferences
- Dissemination

Horizon 2020 – proposed budget €70 billion (as of 8th Feb)

- **A single programme** bringing together three separate programmes/initiatives
 - Framework Programme 7 (FP7)
 - Competitiveness and Innovation Programme (CIP)
 - European Institute of Innovation and Technology (EIT)
- **Coupling research to innovation** –from research to retail, all forms of innovation
- **Focus on societal challenges** facing EU society, e.g., health, clean energy and transport
- **Simplified access**, for all companies, universities, institutes in all EU countries and beyond



Priority 1 – Excellent Science base

Excellent Science - ERC

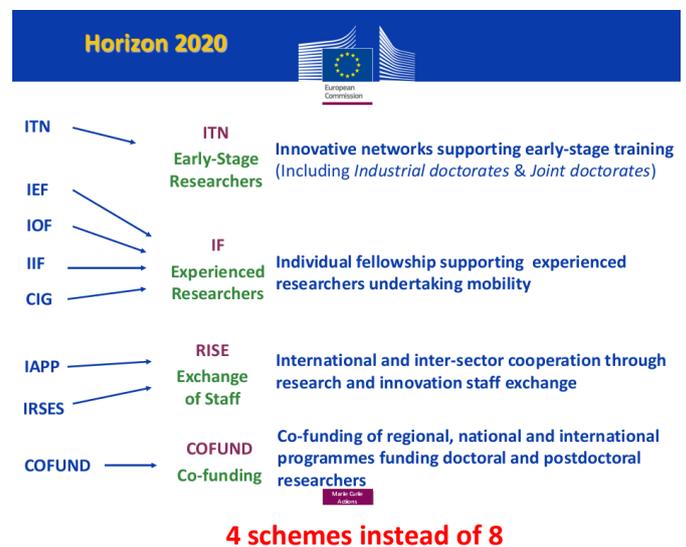
Will continue to:

- operate autonomously led by a Scientific Council
- operate on a 'bottom-up basis'
- have 'research excellence' as sole criterion
- fund 'individual teams'
- provide funding for starting researchers to make transition to independence
- support new ways of working with potential to create breakthrough results

Focus on starting and consolidator grants

Excellent Science - Marie Skłodowska-Curie Actions

1. Fostering new skills through excellent initial training of researchers
2. Nurturing excellence through cross-border and cross-sector mobility
3. Stimulating innovation through cross-fertilisation of knowledge
4. Increasing structural impact by co-funding the activities
5. Specific support and policy action



Excellent Science –Future and Emerging Technologies (FET)

- Expanded from ICT to be used as cross-cutting instrument
- Supports frontier research: alternative ideas, concepts or paradigms of risky or non-conventional nature
- Supported under three strands:
 - FET Open: fostering novel ideas
 - FET Pro-Active: nurturing emerging themes and communities
 - FET Flagships: tackling grand interdisciplinary science and technology challenges

Excellent Science –Research Infrastructures

Three main objectives:

- Developing the European research infrastructures for 2020 and beyond
- Fostering the innovation potential of research infrastructures and their human capital
- Reinforcing the European research infrastructure policy and international co-operation

Priority 2 - Industrial Leadership and competitive frameworks

-aims

- Acknowledge crucial role of private sector in bringing innovation to the market
- Aims to make Europe a more attractive location for businesses to invest in R & D and innovation
- Range of activities in which businesses set the agenda
- Strong focus on addressing market failures:
 - Insufficient strategic investment in key technologies underpinning innovation across a wide range of sectors
 - Insufficient access to risk capital to set up new businesses and allow them to grow
 - Potential contribution to growth of SMEs not fully exploited

Topics

• Leadership in enabling and industrial technologies:

- ICT; Nanotechnologies; Advanced Materials; Biotechnology; Advanced Manufacturing and Processing; and Space

• Access to risk finance

• Innovation in Small and Medium-Sized Enterprises (SMEs)

Leadership in enabling and industrial technologies

- Collaborative research and innovation projects
- Strong focus on industrial involvement and applied research

Key Enabling Technologies encompasses:

- Information & Communication Technologies (ICT) - **will be embedded across all areas** (i.e., excellence, societal challenges, industrial leadership)
- Nanotechnologies
- Advanced Materials
- Biotechnology
- Advanced Manufacturing and Processing
- Space

Innovation in Small and medium-sized enterprises (SMEs)

– increased involvement of SMEs throughout Horizon 2020

20% of total budget for societal challenges and industrial leadership to go to SMEs

Dedicated SME instrument

- Easy access, simple rules and procedures – simplification of the whole process should encourage SME participation
- Used across all societal challenges and enabling/industrial technologies
- Will target highly innovative SMEs – strong ambition, can be high-tech, research conducting or non-research conducting, social or service companies
- There will be calls where only SMEs will be able to apply; single company support available
- SMEs to decide how best to organise projects
- Associations will be able to form part of SME-led consortium under the instrument

Priority 3: Tackling Societal challenges (collaborative research)

- Health, demographics changes 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 and resource efficiency including raw materials
- Inclusive, innovative and secure societies
 - rationale
 - Concerns of citizens and society/EU policy objectives (climate, environment, energy, transport, etc.) cannot be achieved without innovation
 - Breakthrough solutions come from **multi-disciplinary collaborations**, including social-sciences and humanities
 - Addressing challenges requires full innovation cycle: research + innovation
 - Compared to FP7 – emphasis on projects that solve specified challenges, **NOT prescribing** the specific topics, research fields, disciplines, technologies or sectors to be addressed

How have they been selected?

Selection of challenges stems directly from Europe 2020 strategy, taking into account:

- Need to focus on limited number of major challenges
- EU level nature of the challenge
- State of the economy and society in Europe and worldwide
- Europe's performance and trends in the related domains
- Need for an approach co-ordinated at EU level.

Societal challenges –Cross-cutting issues

- Focus on policy priorities without predetermining technologies or types of solutions to be developed
- Bringing together resources and knowledge across fields, technologies and disciplines
- Activities to cover cycle from research to market; focus on innovation-related activities (e.g. piloting, demonstration, demand side policies –public procurement, standards, etc.
- Social Sciences and Humanities –integral part of the activities to address all challenges.

eg Health, demographics changes and well being

Three key areas:

- **Prevention** –through increasing understanding of relationships in all areas relating to health: genetic, environmental, socio-economic factors, healthy approach to aging
- **Disease** –to understand the development processes & process of disease & its spread in order to stimulate innovative drugs and therapies
- **Health and Social Care** –to improve sustainability & efficiency of care provision, plus management & effects of emerging health threats (e.g. epidemics)

Delivered through:

- Long-term studies of large populations to collect and process data
- Developing and supporting data and biological infrastructures
- Supporting and developing appropriate tools and technologies
- Development of research findings into practical & marketable products and services, including regulation

Finance

- Currently complex
- FP7 co-operation and capacities programme are 75% for Research and Technological Development (of direct at 100% and indirect at 60% flat rate, this indirect rate is chosen by the institution) – management and demonstration costs different
- ERC – 100% direct costs and 20% indirect flat rate

Rules for Participation - Likely to be subject of debate during co-decision process

1. Single set of rules
 - Adapted for the whole research and innovation cycle
 - Cover all research programmes and funding bodies
 - Aligned to the Financial regulation, coherent with other new EU Programmes
 - Although possibilities of deviation for some programmes (e.g. Marie Curie)
2. One project –One funding rate
 - Eligible Direct Costs: 100% reimbursement
 - Indirect eligible costs: a flat rate of 20% of direct eligible costs - Council want **25%** flat rate
 - Applies equally to all types of partner
3. Simplification
 - Broader acceptance of participants' accounting practices for direct costs
 - Flat rate for indirect costs
 - No time-sheets for personnel working full-time on a project – still need timesheets if less than 100%
 - Possibility of output-based grants
4. Fewer, more targeted controls and audits
 - Lowest possible level of requirements for submission of audit certificates
 - Audit strategy focused on risk and fraud prevention