Laurent Bochereau
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Research and Innovation Directorate General

THE HOLMEN SEMINAR 2012 – "Erasmus for All” and “Horizon 2020”: What does the EU want and what do we want?
Holmen, 20 September 2012
Past/Present Framework Programmes
FP7 structure (2007-13): EU’s main instrument for funding research

Cooperation: €32,413
Ideas: €7,510
Collaborative research: 10 thematic areas
Frontier research: ERC
Marie Curie Actions
Research Capacity
People: €4,750
JRC: €1,751
Euratom: €2,751
Nuclear research

Framework programme budget (1984-2013)

Research and Innovation
Interacting with Third Countries

- **Associated Countries**
  - 14 Associated countries
  - Legal entities participate on the same basis those from MS
  - Countries represented as observers in committees – 'comitology'

- **Science and Technology Agreements**
  - 20 S&T agreements to FP
  - 25 S&T agreements in Euratom (14 countries)
  - Regular (annual) meetings between both sides
  - Areas and mechanisms of cooperation; management; IPR

- **Other Agreements**
  - Research and Innovation as a part of broader international policies
  - Regional agreements: ASEAN, MOCO, AU/Africa, EaP, WBC, LAC
Norway in FP7

- Active and increasing participation
  - 1351 participations in 933 signed grant agreements (June-12)
  - 25% success rate (EU average 22%)
  - Total amount of EU contribution to Norway: €411M until end 2011 (excluding JTIs, Technology Platforms)
  - Contributions paid by NO: €463M (until end -11)
Norway in FP7

- Important participation in many areas:
  - Energy
  - Environment
    - Climate change + Marine research + Arctic/Polar research!
  - ICT
  - Health
  - Research for the benefit of SMEs
  - ERC
  - Marie Curie
  - Participation in all 5 JTIs and all 10 JPIs (NO leading with BE and ES ‘Healthy and Productive Seas and Oceans’ JPI)
30 projects with a host institution in Norway, by ERC call and domain

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Current host institutions; data as of 15/09/2012
Norway in FP7 – self evaluation
Nordic Institute for Studies in Innovation, Research and Education (NIFU) (2010):

• Successful participation in FP7 with substantial impact on national research

• Development of ERA might have far-reaching structuring effect on Norwegian R&I policy

• Lessons learned:
  – Participation in FP7 perceived as helpful in network building
  – Participation in FP7 increases research performance
  – 40% of participating companies expect economic benefit from the project

• Potential:
  – Good participation of knowledge institutions, less of industry yet
  – More focus on internationalisation of R&D
  – More systematic and goal-oriented approach needed in terms of aligning national strategy and European research policy
Strategic Forum for International S&T Cooperation (SFIC)

- Formed in 2008 as a Council group with the Commission. Reports to the Council and the EC
- Mandate: "To facilitate the further development, implementation and monitoring of the international dimension of ERA by the sharing of information and consultation between the partners (Member States and the Commission, and ACs as observers) with a view to identifying common priorities which could lead to coordinated or joint initiatives, and coordinating activities and positions vis-à-vis third countries and within international fora"
- Norway's very active engagement as an observer
Developments over Recent Years

- **Increased number of agreements**
- **Multiplication of calls:**
  - Small, coordinated calls – heavy administrative burden; fragmentation
- **Lack of coherence and synergies at multiple levels**
- **FP7 mid-term evaluation (Annerberg report)**
  
  'A review based upon a thorough analysis of the current strategy towards international cooperation is needed. The international perspective must be integrated into all programmes and instruments.'
Towards Horizon 2020 and an updated international cooperation strategy

1. Smart & inclusive growth (€491bn)

2. Sustainable growth, natural resources (€383bn)

3. Security and citizenship (€18.5bn)

4. Global Europe (€70bn)

5. Administration (€62.6bn)

Total: €1,025bn
Horizon 2020: What’s new?

• A single programme *bringing together three separate programmes/initiatives* *

• More 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.*

*The 7th research Framework Programme (FP7), innovation aspects of Competitiveness and Innovation Framework Programme (CIP), EU contribution to the European Institute of Innovation and Technology (EIT)*
Three priorities:

1 Excellent science
2 Industrial leadership
3 Societal challenges
## Excellent science

### Proposed funding (million euro, 2014-20)

<table>
<thead>
<tr>
<th>Area</th>
<th>Funding (million euro)</th>
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<tbody>
<tr>
<td><strong>European Research Council</strong></td>
<td><strong>13 268</strong></td>
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<tr>
<td><em>Frontier research by the best individual teams</em></td>
<td></td>
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<tr>
<td><strong>Future and Emerging Technologies</strong></td>
<td><strong>3 100</strong></td>
</tr>
<tr>
<td><em>Collaborative research to open new fields of innovation</em></td>
<td></td>
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<tr>
<td><strong>Marie Curie actions</strong></td>
<td><strong>5 752</strong></td>
</tr>
<tr>
<td><em>Opportunities for training and career development</em></td>
<td></td>
</tr>
<tr>
<td><strong>Research infrastructures (including e-infrastructure)</strong></td>
<td><strong>2 478</strong></td>
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<tr>
<td><em>Ensuring access to world-class facilities</em></td>
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**Industrial leadership**

**Proposed funding (million euro, 2014-20)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Funding (million euro)</th>
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<tr>
<td>Leadership in enabling and industrial technologies (ICT, nanotechnologies, materials, biotechnology, manufacturing, space)</td>
<td>13,781</td>
</tr>
<tr>
<td>Access to risk finance</td>
<td>3,538</td>
</tr>
<tr>
<td>Leveraging private finance and venture capital for research and innovation</td>
<td></td>
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<tr>
<td>Innovation in SMEs</td>
<td>619</td>
</tr>
<tr>
<td>Fostering all forms of innovation in all types of SMEs</td>
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## Societal challenges

### Proposed funding (million euro, 2014-20)

<table>
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<tr>
<th>Challenge</th>
<th>Proposed Funding</th>
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<tr>
<td>Health, demographic change and wellbeing</td>
<td>8 033</td>
</tr>
<tr>
<td>Food security, sustainable agriculture, marine and maritime resources &amp; the bioeconomy</td>
<td>4 152</td>
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<tr>
<td>Secure, clean and efficient energy*</td>
<td>5 782</td>
</tr>
<tr>
<td>Smart, green and integrated transport</td>
<td>6 802</td>
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<tr>
<td>Climate action, resource efficiency and raw materials</td>
<td>3 160</td>
</tr>
<tr>
<td>Inclusive, innovative and secure societies</td>
<td>3 819</td>
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*Additional €1 050m for nuclear safety and security from the Euratom Treaty activities (2014-18). Does not include ITER.
International Cooperation in Horizon 2020

Article 7 – future associations

1. Horizon 2020 shall be open to the association of:

   - acceding countries, candidate countries and potential candidates, in accordance with the general principles and general terms and conditions for the participation of those countries in Union programmes established in the respective framework agreements and decisions of association councils or similar agreements;

   - selected third countries that fulfil all of the following criteria:

     - (i) have a good capacity in science, technology and innovation;
     - (ii) have a good track record of participation in Union research and innovation programmes;
     - (iii) have close economic and geographical links to the Union;
     - (iv) are European Free Trade Association (EFTA) members or countries or territories listed in the Annex to Regulation (EU) No XX/2012 of the European Parliament and the Council establishing a European Neighbourhood Instrument[1];
     - (v) have fair and equitable treatment of Intellectual Property Rights.

2. Specific terms and conditions regarding the participation of associated countries in Horizon 2020, including the financial contribution based on the gross domestic product of the associated country shall be determined by international agreements between the Union and the associated countries.
A Rapidly Changing Context

From a triad to a multipolar world

STI increasingly internationally interconnected

Most societal challenges are global in nature
Challenges and Opportunities

- **Need to access knowledge** produced outside Europe and gain access to new **markets**

- **Need to promote** Europe as an **attractive location** and **partner** for research and innovation

- **Need to join forces** globally to tackle **global challenges**
New strategy for international cooperation in research and innovation

Need to engage *more actively and strategically* in international cooperation:

- **Three main objectives:**
  - Strengthen the Union's excellence and attractiveness in research and innovation as well as its industrial and economic competitiveness
  - Tackle global societal challenges
  - Support the Union's external policies

- Combining *openness* with better *targeted actions*
- Strengthened partnership with **Member States**
- Stronger contribution of research and innovation to **external policies of the Union**
Dual approach

- **Openness:**
  - Horizon 2020 open to participation from across the world
  - Revision to the list of countries which receive automatic funding

- **Targeted actions:**

  1. *Thematic*: identifying areas for international cooperation on the basis of the Union's policy agenda
  2. Differentiation by *countries/regions* to target partners for cooperation

→ *multi-annual roadmaps for cooperation with key partners*
Thematic targeting

- **Starting point:** *Horizon 2020* societal challenges and enabling technologies

- **Identify areas** based on analysis of a set of criteria of the EU and potential partners:
  - Research and innovation capacity
  - Access to markets
  - Contribution to international commitments, e.g. MDG or Rio+20
  - Frameworks in place to engage in cooperation (EU, international partners and MS) – including lessons learnt from previous cooperation
Instruments

- **Policy instruments**
  - more strategic use of S&T agreements with key third countries
  - strategic partnerships (e.g. Russia)
  - increased synergies across the Commission, more visibility for STI in general cooperation frameworks

- **Funding instruments**
  - collaborative projects (third country participation required and/or taken into account in evaluation)
  - networking between existing projects
  - joint initiatives of Union and third countries: coordinated calls, contribution of Union to third country/international organisations, ERA-Net/Art185

- **Information gathering** (multiple sources: ERAWATCH, OECD, UNESCO, EEAS Delegations and Counsellors,...)
Partnership with Member States

- Union activities must **add value** and **complement** those of Member States

- Acknowledge progress made through **SFIC**

- From national considerations to **European shared activities**:
  - associate MS to development of EU roadmaps
  - prepare joint Union-MS roadmaps
  - common guidelines for international cooperation with third countries (e.g. visa)
New Strategy - Key Novelties

- General opening of Horizon 2020, but with more restricted approach to automatic funding
- Targeted activities with scale and scope to achieve impact
- Multi-annual roadmaps for key partner countries/regions
- Stronger partnership with Member States
- Common principles for conduct of international cooperation
- Stronger role for Union in international organisations and multilateral fora
- Strengthened implementation, governance, monitoring and evaluation
Horizon 2020: Next Steps

• Council – Cyprus Presidency:
  • Framework Programme Regulation: technical discussions with EP
  • Specific Programme: Partial General Approach
  • Rules for Participation: (Partial) General Approach (10-Oct, Luxembourg)
  • 11-Dec, Brussels: Horizon 2020 Specific Programme

• Parliament:
  • Deadline for tabling amendments was 26-28 June 2012
  • Consideration of amendments: 17-18 September 2012
  • 2nd consideration of amendments: 8-9 October 2012
  • Vote ITRE: Oct/Nov 2012
  • Vote plenary (depending on the MFF state of art of negotiations): tbc
THANK YOU!