The EU Framework Programme For Research and Innovation (2014-2020)

ITRE Committee, 23 January 2012
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Director-General, DG Research & Innovation
European Commission
Outline of the presentation

1. Context
2. Outline of the proposal
3. Cross-cutting issues
4. Timetable

Key challenge: stabilise the financial and economic system while taking measures to create economic opportunities

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
What is Horizon 2020

• Commission proposal for a 80 billion euro research and innovation funding programme (2014-20)

• A core part of Europe 2020, Innovation Union & European Research Area:
  – **Responding to the economic crisis** to invest in future jobs and growth
  – **Addressing peoples’ concerns** about their livelihoods, safety and environment.
  – **Strengthening the EU’s global position** in research, innovation and technology
Active involvement of stakeholders

- **European Parliament** reports: Carvalho (simplification), Merkies (Innovation Union), Audy (FP 7 evaluation) and Matias (Green Paper)

- **EU Presidencies**: Sweden (societal challenges-based approach), Spain (integration of research and innovation), Belgium (simplification) Hungary (FP7 interim evaluation), Poland (widening participation); European Council conclusions from 4.2.2011 (Common Framework to bring together all EU research and innovation funding)

- **Overwhelming response** to the public consultation on Horizon 2020 (more then 2000 contributions)

- **Survey on administrative costs for participants in FP7**

- **25 workshops on the content** of Horizon 2020
### EP views and Horizon 2020

<table>
<thead>
<tr>
<th>EP position</th>
<th>Horizon 2020</th>
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<tbody>
<tr>
<td>Integration of European research and innovation funding</td>
<td>✓</td>
</tr>
<tr>
<td>Radical simplification</td>
<td>✓</td>
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<tr>
<td>Importance of science base (excellence in research)</td>
<td>✓</td>
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<tr>
<td>Focus on societal challenges</td>
<td>✓</td>
</tr>
<tr>
<td>Multi-disciplinarity</td>
<td>✓</td>
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<tr>
<td>Widening participation</td>
<td>✓</td>
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<tr>
<td>Address the whole innovation cycle (including social innovation)</td>
<td>✓</td>
</tr>
<tr>
<td>Greater involvement of SMEs</td>
<td>✓</td>
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Three priorities:

1. Excellent science
2. Industrial leadership
3. Societal challenges
Priority 1 Excellent science

Why:
• World class science is the foundation of tomorrow’s technologies, jobs and wellbeing
• Europe needs to develop, attract and retain research talent
• Researchers need access to the best infrastructures
<table>
<thead>
<tr>
<th>Proposed funding (million euro, 2014-20)</th>
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</thead>
<tbody>
<tr>
<td><strong>European Research Council</strong></td>
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<tr>
<td><em>Frontier research by the best individual teams</em></td>
</tr>
<tr>
<td><strong>Future and Emerging Technologies</strong></td>
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<tr>
<td><em>Collaborative research to open new fields of innovation</em></td>
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<tr>
<td><strong>Marie Curie actions</strong></td>
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<tr>
<td><em>Opportunities for training and career development</em></td>
</tr>
<tr>
<td><strong>Research infrastructures (including e-infrastructure)</strong></td>
</tr>
<tr>
<td><em>Ensuring access to world-class facilities</em></td>
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Priority 2  Industrial leadership

Why:
• Strategic investments in key technologies (e.g. advanced manufacturing, micro-electronics) underpin innovation across existing and emerging sectors
• Europe needs to attract more private investment in research and innovation
• Europe needs more innovative SMEs to create growth and jobs
<table>
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<th>Proposed funding (million euro, 2014-20)</th>
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<tbody>
<tr>
<td>Leadership in enabling and industrial technologies (<em>ICT</em>, nanotechnologies, materials, biotechnology, manufacturing, space)</td>
</tr>
<tr>
<td>Access to risk finance</td>
</tr>
<tr>
<td><em>Leveraging private finance and venture capital for research and innovation</em></td>
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<tr>
<td>Innovation in SMEs</td>
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</table>
Priority 3 Societal challenges

Why:

• 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 & humanities

• Promising solutions need to be tested, demonstrated and scaled up
## Proposed funding (million euro, 2014-20)

<table>
<thead>
<tr>
<th>Area</th>
<th>Funding (million euro)</th>
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<tbody>
<tr>
<td>Health, demographic change and wellbeing</td>
<td>8 033</td>
</tr>
<tr>
<td>Food security, sustainable agriculture, marine and maritime research &amp; the bioeconomy</td>
<td>4 152</td>
</tr>
<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>
</tr>
<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>
</tr>
</tbody>
</table>

*Additional €1 788m for nuclear safety and security from the Euratom Treaty activities (2014-18). Does not include ITER.
Social sciences and humanities

- **Integrated approach**: SSH included as an integral part of the activities, working beyond 'silos' (e.g. understanding the determinants of health and optimising the effectiveness of healthcare systems).

- The 'Inclusive, Innovative and Secure Societies' challenge: issues such as smart and sustainable growth, social transformations, social innovation and creativity, the position of Europe as a global actor as well as the social dimension of a secure society (SSH have the tools to contribute to addressing security challenges, enhancing the societal dimension of security policy and research).

- **Bottom-up funding**: ERC, MCA, Research Infrastructures.
Strong participation by SMEs

- **Integrated approach** - around 15% of the total budget for societal challenges and LEITs to go to SMEs.

- **Simplification** of particular benefit to SMEs (e.g. single entry point).

- A **new SME instrument**, building on the SBIR model, will be used across all societal challenges as well as for the LEITs.

- A dedicated activity for research-intensive SMEs in 'Innovation in SMEs'.

- 'Access to risk finance' will have a strong SME focus (debt and equity facility)
Widening participation

- **Principle of excellence**: continue to allocate funding on the basis of competitive calls, selecting only the best projects.

- **Clear division of labour** between cohesion policy and Horizon 2020.
  - **Cohesion policy**: support for regions in building up their research and innovation capacity.
  - **Horizon 2020**: widen participation, better coordination between the two Union funding programmes, support policy learning reforms.

- Accompanying measures in Horizon 2020 **to ensure that excellence prevails wherever it exists, including**: twinning, ERA chairs, support for access to international networks, development of smart specialisation strategies.
International cooperation

• **International cooperation is crucial** to address many Horizon 2020 objectives.

• **Principle of general openness**: the programme will remain to be the most open funding programme in the world.

• Horizon 2020 shall be open to the **association** of: acceding countries, candidate countries and potential candidates and selected third countries that fulfil the relevant criteria (capacity, track record, close economic and geographical links to the Union, etc.).

• Targeted actions to be implemented taking a **strategic approach to international cooperation** (dedicated measures in the 'Inclusive, innovative and secure societies' challenge).
## Role of the EIT and JRC in Horizon 2020

### Three priorities to be supported by:

<table>
<thead>
<tr>
<th>Priority</th>
<th>Funding</th>
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<tbody>
<tr>
<td>European Institute of Innovation and Technology (EIT) <em>Combining research, innovation &amp; training in Knowledge and Innovation Communities</em></td>
<td>1,360 + 1,440*</td>
</tr>
<tr>
<td>Joint Research Centre (JRC)** <em>Providing a robust, evidence base for EU policies</em></td>
<td>1,962</td>
</tr>
</tbody>
</table>

* Second tranche pro rata from LEIT and Societal challenges (subject to review)
** Additional €656 m for the JRC to be funded from the Euratom Treaty activities
Simplification: Rules for Participation (1)

1. A SINGLE SET OF RULES
   - Adapted for the whole research and innovation cycle
   - Covering all research programmes and funding bodies
   - Aligned to the Financial Regulation, coherent with other new EU Programmes.

2. ONE PROJECT - ONE FUNDING RATE.
   - Maximum of 100% of total eligible costs (except for actions close to market, where a 70% maximum will apply)
   - Indirect eligible costs: a flat rate of 20% of direct eligible costs

3. SIMPLE EVALUATION CRITERIA
   - Excellence – Impact - Implementation (Excellence only, for the ERC)

4. NEW FORMS OF FUNDING aimed at innovation: pre-commercial procurement, inducement prizes, dedicated loan and equity instruments.

5. INTERNATIONAL PARTICIPATION: facilitated but better protecting EU interests.
Simplification: Rules for Participation (2)

6. SIMPLER RULES FOR GRANTS: 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, possibility of output-based grants.

7. FEWER, BETTER TARGETED CONTROLS AND AUDITS
   - Lowest possible level of requirements for submission of audit certificates without undermining sound financial management;
   - Audit strategy focused on risk and fraud prevention.

8. IMPROVED RULES ON INTELLECTUAL PROPERTY
   - Balance between legal security and flexibility;
   - Tailor-made IPR provisions for new forms of funding;
   - A new emphasis on open access to research publications.

Beyond the Rules: further simplified provisions in the Grant Agreement and implementing procedures to facilitate access to Horizon 2020 (e.g. common IT platform).
Simplification: Summary (Mrs Carvalho’s checklist)

<table>
<thead>
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<th>Simplifications</th>
<th>Horizon 2020</th>
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<tbody>
<tr>
<td>Single set of simpler and more coherent participation rules</td>
<td>✓</td>
</tr>
<tr>
<td>New balance between trust and control</td>
<td>✓</td>
</tr>
<tr>
<td>Moving from several funding rates for different beneficiaries and activities to just two</td>
<td>✓</td>
</tr>
<tr>
<td>Full alignment of the rules for participation with the revised Financial Regulation</td>
<td>✓</td>
</tr>
<tr>
<td>Simplifications for research directly introduced in revised Financial Regulation (prizes, interest on pre-financing, VAT, extrapolation)</td>
<td>✓</td>
</tr>
<tr>
<td>Broader acceptance of usual accounting practices of the beneficiaries</td>
<td>✓</td>
</tr>
<tr>
<td>Simplified time recording; abolition of time-sheets for staff working fully on the EU project</td>
<td>✓</td>
</tr>
<tr>
<td>Reducing Time to grant</td>
<td>✓</td>
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</table>
Contributing to the European Research Area (ERA)

- ERA framework proposal in 2012 to create a single market for knowledge research and innovation.
- Complemented by Horizon 2020:
  - Boosting support to ERA priorities – mobility, infrastructures, knowledge transfer, policy learning
  - Stronger partnerships with Member States and private sector to invest more efficiently
  - Taking account of gender, ethical issues, researcher careers and open access to results
Euratom Programme 2014-2018

- **Budget:** TOTAL: €1665 million, including: Fission: €336 million; Fusion €673 million; JRC: €656 million
- **Programme for 5 years,** in line with the Euratom Treaty (art. 7)
- **What is new?**
  - Stronger focus on nuclear safety and nuclear training
  - A single Euratom programme bringing together three separate decisions
  - The same rules for participation as in the Horizon 2020 - simplified access
  - Programme contributes to the implementation of priorities of the 'Horizon 2020’
  - Fusion research programme will be restructured

- **Funding for ITER outside MFF in a separate supplementary programme:** €2573 million for 2014-2018
Links to COSME

• Horizon 2020 and COSME are **complementary programmes** to generate growth and jobs

• Different focus:
  – Horizon 2020 = innovation driven growth
  – COSME = support to create favourable business environment and competitiveness

• Closely coordinated, for instance:
  – Integrated financial instruments (debt and equity), with facilities in both programmes serving complementary objectives
  – Enterprise Europe Network set up under COSME, but support to SMEs for EU funding
Next steps

**Ongoing:** Parliament and Council negotiations on the basis of the Commission proposals

**Ongoing:** Parliament and Council negotiations on EU budget 2014-20 (including overall budget for Horizon 2020)

**Mid 2012:** Final calls under 7th Framework Programme for Research to bridge gap towards Horizon 2020

**Mid 2013:** Adoption of legislative acts by Parliament and Council on Horizon 2020

**1/1/2014:** Horizon 2020 starts; launch of first calls
Thank you for your attention!

Find out more:

www.ec.europa.eu/research/horizon2020