Horizon 2020

The EU Framework Programme for Research and Innovation 2014-2020
The Multiannual Financial Framework
2014-2020: Commission’s proposals 29 June 2011

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 (2014-2020)

- 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

- **A single programme** bringing together three separate programmes/initiatives*
- **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.

*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
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
### Proposed funding (million euro, 2014-2020)

<table>
<thead>
<tr>
<th><strong>European Research Council</strong></th>
<th>13 268</th>
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<tbody>
<tr>
<td>Frontier research by the best individual teams</td>
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<th><strong>Future and Emerging Technologies</strong></th>
<th>3 100</th>
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<td>Collaborative research to open new fields of innovation</td>
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<th><strong>Marie Curie actions</strong></th>
<th>5 572</th>
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<td>Opportunities for training and career development</td>
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<th><strong>Research infrastructures (including e-infrastructure)</strong></th>
<th>2 478</th>
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<tr>
<td>Ensuring access to world-class facilities</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
## Proposed funding (million euro, 2014-20)

<table>
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<tr>
<th><strong>Leadership in enabling and industrial technologies</strong> (ICT, nanotechnologies, materials, biotechnology, manufacturing, space)</th>
<th>13 781</th>
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| **Access to risk finance**  
Leveraging private finance and venture capital for research and innovation | 3 538 |
| **Innovation in SMEs**  
Fostering all forms of innovation in all types of SMEs | 619 complemented by  
6 829 (expected 15% of societal challenges + LEIT) and 'Access to risk finance' with strong SME focus |
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, 2014-2020)**

<table>
<thead>
<tr>
<th>Area</th>
<th>Funding (€ million)</th>
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<tbody>
<tr>
<td>Health, demographic change and wellbeing</td>
<td>8 033</td>
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<tr>
<td>Food security, sustainable agriculture, marine and maritime research &amp; the bioeconomy</td>
<td>4 152</td>
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<tr>
<td>Secure, clean and efficient energy*</td>
<td>5 782</td>
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<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>
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<tr>
<td>Inclusive, innovative and secure societies</td>
<td>3 819</td>
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*Additional €1 788m for nuclear safety and security from the Euratom Treaty activities (2014-2018). Does not include ITER.*
Horizon 2020 and partnering

Public private partnerships:
- Trough Joint Technology Initiatives or other formal structures (Art. 187)
- Trough contractual agreements, which provide inputs for work programmes
- Only when criteria met, e.g. clear commitments from private partners

Public public partnerships:
- Trough « ERA-Nets » for topping up individual calls/actions (replacing current ERA-Net, ERA-Net Plus, Inco-Net, Inno-net)
- Trough participation in joint programmes between Member States (Art. 185)
- Supporting agendas of Joint Programming Initiatives when in line with Horizon 2020
- Only when criteria met, e.g. financial commitments of participating countries

European Innovation Partnerships:
- Not funding instruments, but for coordination with broader policies and programmes
## Role of the EIT and JRC in Horizon 2020

| **European Institute Technology (EIT)** | **1 360+**  
|                                           | **1 440*** |
| Combining research, innovation & training in knowledge and Innovation Communities |  |
| **Joint Research Centre (JRC)**** | **1 962** |
| Providing a robust, evidence base for EU policies |  |

*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: summary

- **Single set of** simpler and more coherent participation rules
- New **balance between trust and control**
- Moving from several **funding rates** for different beneficiaries and activities to just two
- Replacing the four methods to calculate overhead or «indirect costs» with a **single flat rate**
- Major simplification under the **forthcoming financial regulation**
- **Successful applicants to get working more quickly**: reduction of average time to grant by 100 days (current average of around 350 days under FP7)
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
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).
Next steps

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

**Ongoing:** Parliament and Council negotiations on EU budget 2014-2020 (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