European Commission

Horizon 2020

The EU Framework Programme for Research and Innovation

2014-2020

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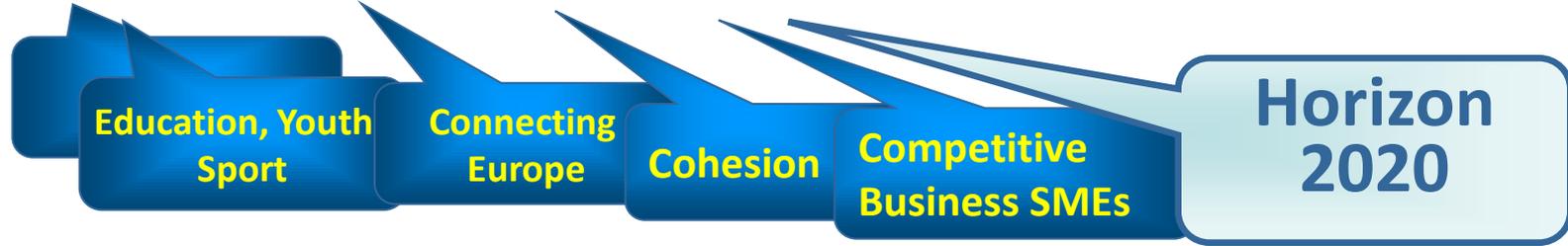
DG RTD A3

HORIZON 2020

Research and Innovation

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)

Education, Youth Sport

Connecting Europe

Cohesion

Competitive Business SMEs

Horizon 2020

2. Sustainable growth, natural resources (€383bn)
3. Security and citizenship (€18.5bn)
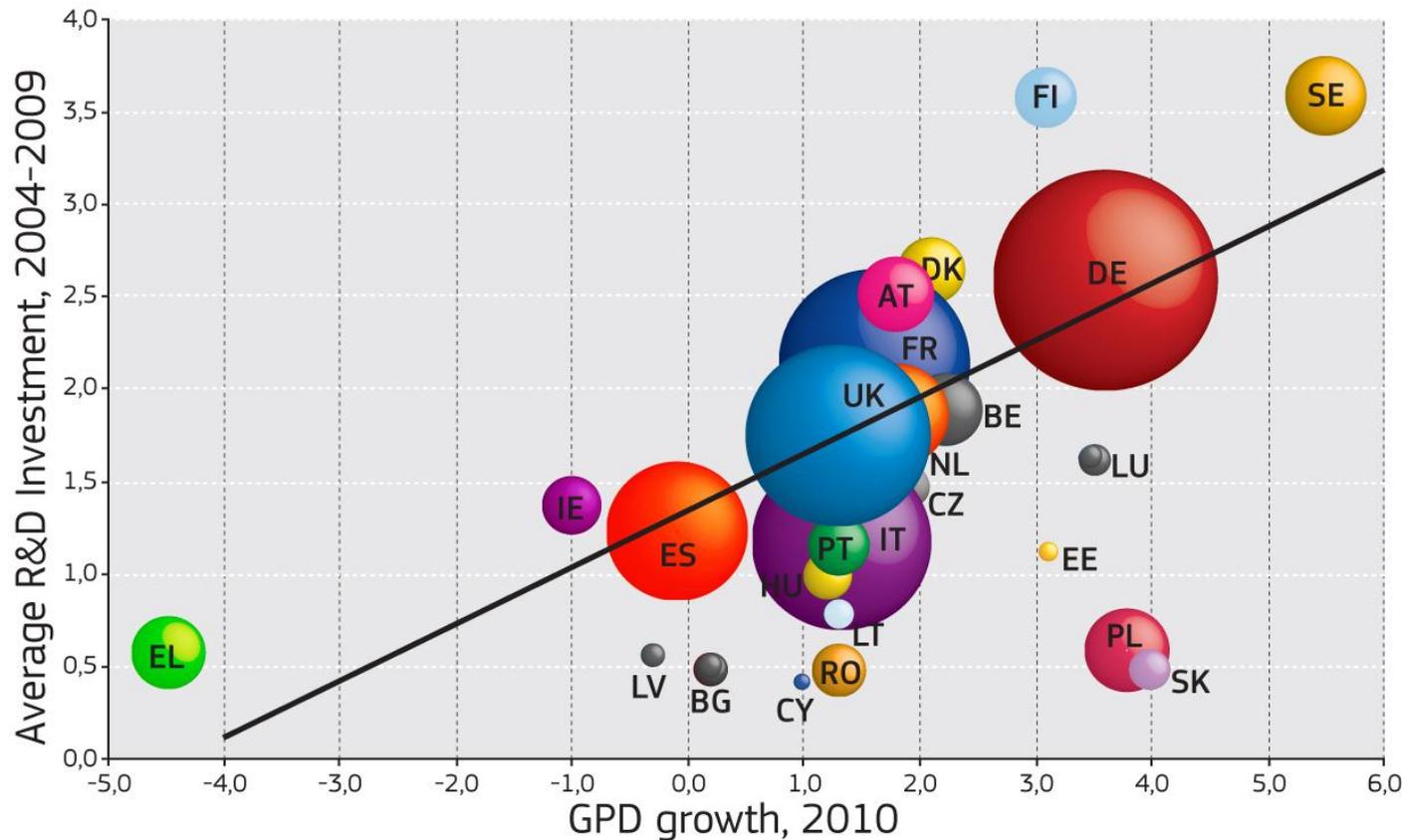*4. Global Europe (€70bn)*
5. Administration (€62.6bn)

Total: € 1,025bn

Investment in R&D is part of the solution to exit from the economic crises

The Commission proposals

- *Regulation of the European Parliament and Council establishing Horizon 2020 - the Framework Programme for Research and Innovation (2014-20)*

- *Regulation of the European Parliament and Council laying down the rules for the participation and dissemination in Horizon 2020*

- *Council Decision establishing the Specific Programme implementing Horizon 2020*

- *Council Regulation on the research and training programme of the European Atomic Energy Community (2014-18) complementing Horizon 2020**

- ** ITER is addressed with a proposal for a Council Decision on a supplementary programme (outside the MFF)*

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

Active involvement of stakeholders

- **EU Presidencies: Sweden** (societal challenges-based approach), **Spain** (integration of research and innovation), **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)

- **European Parliament** reports: Merkies (Innovation Union), Audy (FP7 evaluation), Matias (Horizon 2020) and Carvalho (simplification)

- 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

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)

European Research Council Frontier research by the best individual teams	*13 268*
Future and Emerging Technologies Collaborative research to open new fields of innovation	*3 100*
Marie Curie actions Opportunities for training and career development	*5 572*
Research infrastructures *(including e-infrastructure)* Ensuring access to world-class facilities	*2 478*

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)

Leadership in enabling and industrial technologies *(*ICT, nanotechnologies, materials, biotechnology, manufacturing, space)	*13 781*
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)

Health, demographic change and wellbeing	*8 033*
Food security, sustainable agriculture, marine and maritime research & the bioeconomy	*4 152*
Secure, clean and efficient energy*	*5 782*
Smart, green and integrated transport	*6 802*
Climate action, resource efficiency and raw materials	*3 160*
Inclusive, innovative and secure societies	*3 819*

*Additional €1 788m for nuclear safety and security from the Euratom Treaty activities (2014-2018). Does not include ITER.

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Horizon 2020 and partnering

Public private partnerships:

- Through Joint Technology Initiatives or other formal structures (Art. 187)

- Through contractual agreements, which provide inputs for work programmes

- Only when criteria met, e.g. clear commitments from private partners

Public public partnerships:

- Through « ERA-Nets » for topping up individual calls/actions (replacing current ERA-Net, ERA-Net Plus, Inco-Net, Inno-net)

- Through 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

Simplification: Rules for Participation

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 the 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*

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Simplification: Rules for Participation

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).

Research and Innovation

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)

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

Socio-economic 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.

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.

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

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