



# Key aspects of the Commission proposal for Horizon 2020 – Where do we stand, what are the main issues?

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A graphic for "Horizon 2020" featuring a glowing blue background with a horizon line. A globe of the Earth is positioned in the center, with the word "HORIZON 2020" written in large, white, sans-serif capital letters across the middle. The globe is partially obscured by the letter "O" in "HORIZON".

HORIZON 2020

Research and  
Innovation

# The Multiannual Financial Framework (MFF) 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)***

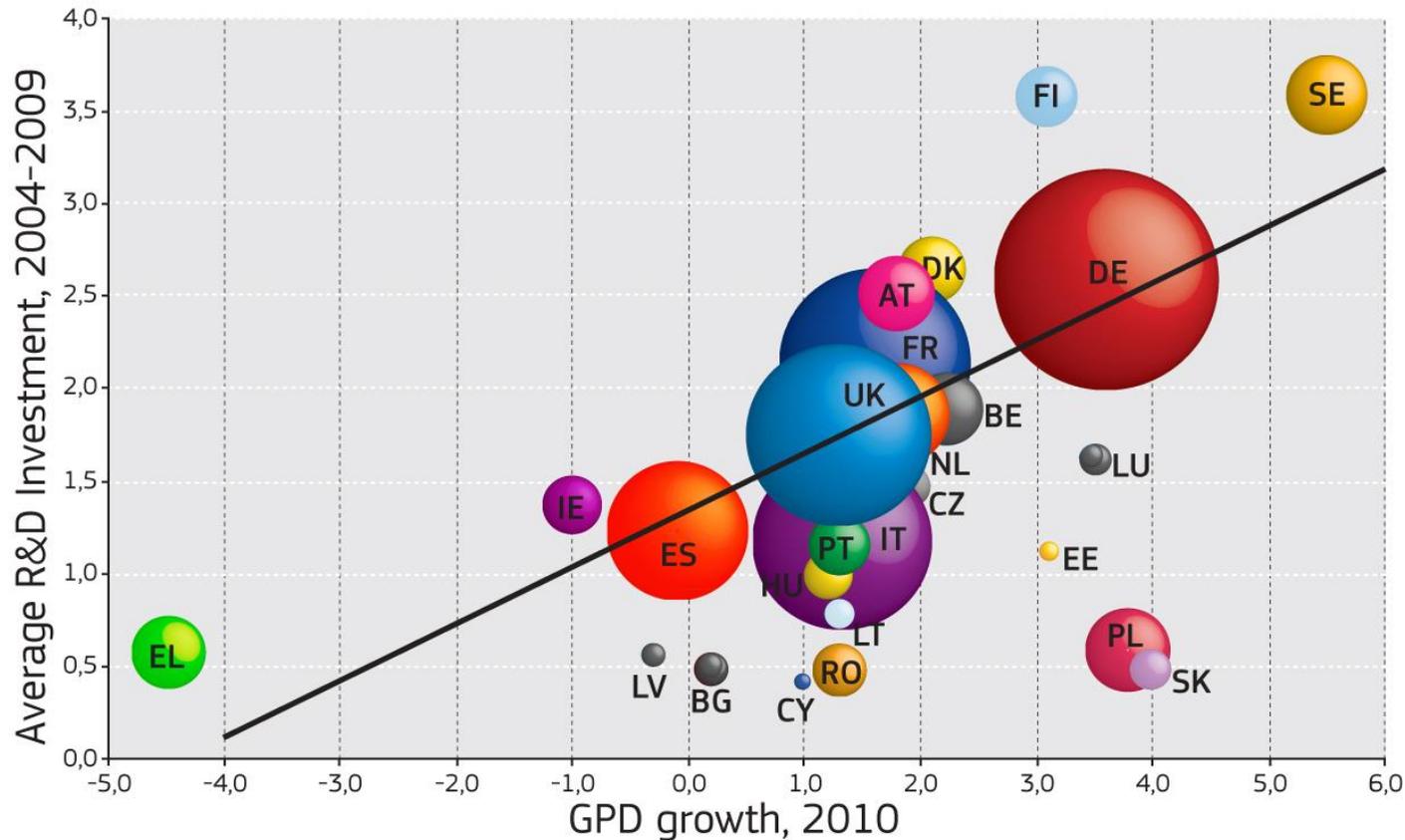
**Total:  
€ 1,025bn**

# What is Horizon 2020

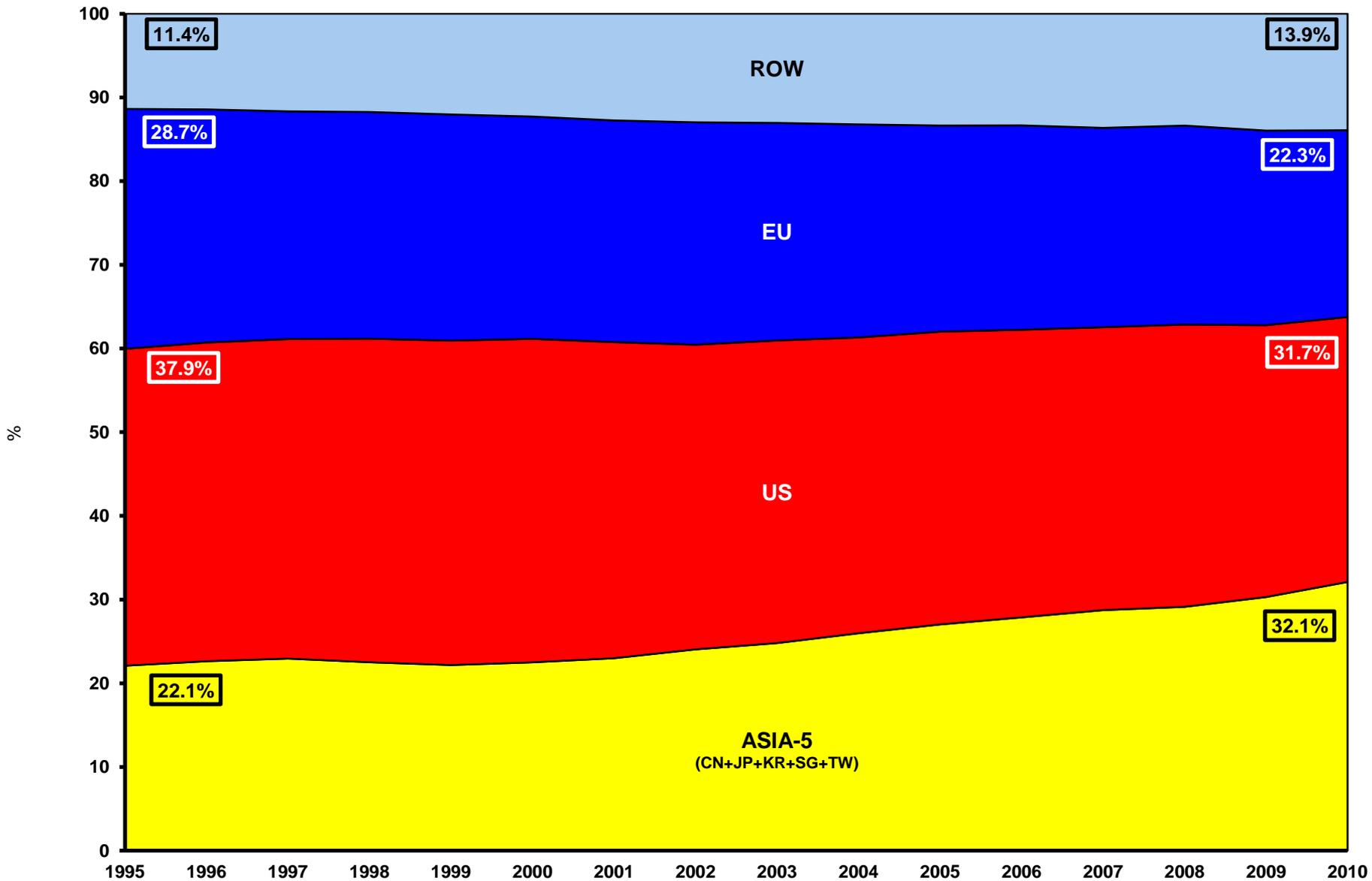
## A core part of Europe 2020, Innovation Union & European Research Area:

- **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

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



# Worldwide R&D expenditure 1995-2010 in %



# What's new

- Commission proposal for a 80 billion euro research and innovation funding programme (2014-2020) provides for **a substantial increase**
- **A single programme** bringing together three separate programmes/initiatives\*
- **Coupling research to innovation** – from research to retail, all forms of innovation
- **Focus on excellence, industrial leadership and 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)



# Financing and architecture of Horizon 2020 - State of play

Finalisation of Horizon 2020 is intrinsically linked to conclusion of MFF discussion since European Parliament decided that all reports under MFF will not be adopted in Plenary until agreement on MFF

Special European Council in the second half of November 2012 dedicated to finalise MFF

Group of 15 Friends of Cohesion are against any cut in the COM proposal; Commission and EP are on the same line. On the other side a group of net contributors claims for a reduction of at least € 100 Billion

Overall architecture of Horizon 2020 introducing a single programme for all research and innovation related activities, coupling research and innovation and based on three priorities (excellence, industrial leadership and societal challenges are broadly recognised by Council and Parliament



# 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)

|  |        |
|--|--------|
| <b><i>European Research Council</i></b><br>Frontier research by the best individual teams                        | 13 268 |
| <b><i>Future and Emerging Technologies</i></b><br>Collaborative research to open new fields of innovation        | 3 100  |
| <b><i>Marie Curie actions</i></b><br>Opportunities for training and career development                           | 5 572  |
| <b><i>Research infrastructures (including e-infrastructure)</i></b><br>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)

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

## 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

# Societal challenges



European  
Commission



**Population**  
**+50% by 2050**



**Food**  
**+70% by 2050**



**Energy**  
**+100% by 2050**



**Climate**  
**+2° by 2050**

Research and  
Innovation

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

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

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

## Role of the EIT and JRC in Horizon 2020

|  |                      |
|--|----------------------|
| European Institute of Innovation and Technology (EIT) <i>Combining research, innovation &amp; training in Knowledge and Innovation Communities</i> | 1 360<br>+<br>1 440* |
| Joint Research Centre (JRC)**<br><i>Providing a robust, evidence base for EU policies</i>  | 1 961                |

\* Second tranche pro rata from LEIT and Societal challenges (subject to review)

\*\* Additional €724 m for the JRC to be funded from the Euratom Treaty activities

# Horizon 2020 Framework and Specific Programme – State of Play at Council and European Parliament

Partial General Approach on framework programme reached on 31 May 2012 at the level of the Council (formal position of Council before opinion of EP); general partial approach on Specific Programme expected in December 2012

EP-Committee (ITRE) vote on H2020 package expected end of October or end of November; EP-plenary only after general MFF-agreement

Some major issues raised by Council and/or EP (1824 amendments of FP and 988 amendments of SP):

- **Split of challenge 6 in 2 challenges one on secure societies and one on inclusive and innovative societies**
- **In challenge 5 (climate action, resource efficiency and raw materials) a new activity on cultural heritage to be introduced**
- **Placing of "widening of participation elements" and "inclusive and innovative societies in "Excellence pillar"**
- **Financing of EIT, in particular concerning the second allocation**
- **Stem cell research**
- **Increase of funding for SME to 20% instead of 15%**

# Simplification: Rules for Participation

## ***1. A single set of rules***

- Covering all research programmes and funding bodies
- Covering the whole research and innovation cycle
- Aligned to the Financial Regulation, coherent with other new EU Programmes

## ***2. New balance between trust and control***

- Audit strategy focused on risk and fraud prevention
- Lowest possible level of requirements for submission of audit certificates without undermining sound financial management
- No extrapolation of audit results below materiality threshold

# Simplification: Rules for Participation

## 3. *Simpler rules for grants*

- One project – one funding rate
  - Moving from several funding rates for different beneficiaries and activities to just two rates
  - Maximum of 100% of the total eligible costs for research and innovation actions
  - Maximum of 70% of the total eligible costs for actions primarily consisting of activities such as prototyping, testing, demonstrating, piloting, market replications
- Funding rates set at a level that
  - overall the reimbursement level in Horizon 2020 should not be lower than under FP7 for any category of organisations
  - the overall funding intensity is broadly comparable to FP7
- Replacing four methods to calculate overhead or "indirect costs" with a single a flat rate of 20% of the total direct eligible costs
- Broader acceptance of participants practices for direct costs, no time sheets for personnel working full time on EU-projects, possibility of output based funding, eligibility of VAT, no interests on prefinancing

## Effects of proposed simplification measures

Overall successful applicants to get working more quickly:  
reduction of average time to grant by 100 days (current average of around 350 days under FP7)

Validations of legal entities – today one major source of delay in grant negotiations, in particular for SMEs -, will be freed of classification issues, so that time to grant can be considerably reduced

Preparations of budgets of proposals and project accounting, including time recording, will be much less complex, as there will be no more differentiations between organisations and activities in a project

Reduction of error rate because in particular flat rate for indirect cost is much simpler and less error prone than real indirect costs methods ("fair apportionment of costs") leading to less audits, reduction of audit burden and increased legal certainty for participants.

# Horizon 2020 – Rules for participation - State of play at Council and European Parliament

Partial General Approach expected at Competitiveness Council of 10 October 2012

EP-Committee (ITRE) vote on H2020 package including participation rules expected end of October or end of November; EP-plenary only after general MFF-agreement

Main outstanding issues:

## Funding Model

- The proposal of a single funding rate for all participants and activities seems to have broad support in the Council whereas EP seems at this stage reluctant.
- European Court of Auditors considers that this radically simplified funding model will improve the reliability of the model, decrease the risk of irregularities in beneficiaries' cost claims, make projects accounting less complex and facilitate and accelerate the application process

## Flat Rate for indirect costs instead of real costs

- Issue is subject of in-depth discussions both at the level of the Council and the EP
- European Court of Auditors considers that the Commission should provide assurance that the new approach will not lead to undesired situations where participants significantly lose out, thereby affecting the attractiveness of the programme

## Remuneration of researchers

## 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, no time-consuming validation).
- 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).



# Thank you for your attention!

**Find out more:**

[www.ec.europa.eu/research/horizon2020](http://www.ec.europa.eu/research/horizon2020)