



# Horizon 2020

*The EU Framework  
Programme for  
Research and Innovation*

*2014-2020*

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HORIZON 2020

A graphic for the Horizon 2020 program. The word "HORIZON 2020" is written in large, white, sans-serif capital letters. The letter "O" in "HORIZON" is replaced by a transparent globe of the Earth. The text is set against a background of a blue sky with a bright sun or light source behind the globe, creating a lens flare effect. The bottom of the image shows a curved horizon line of the Earth.

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)***



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

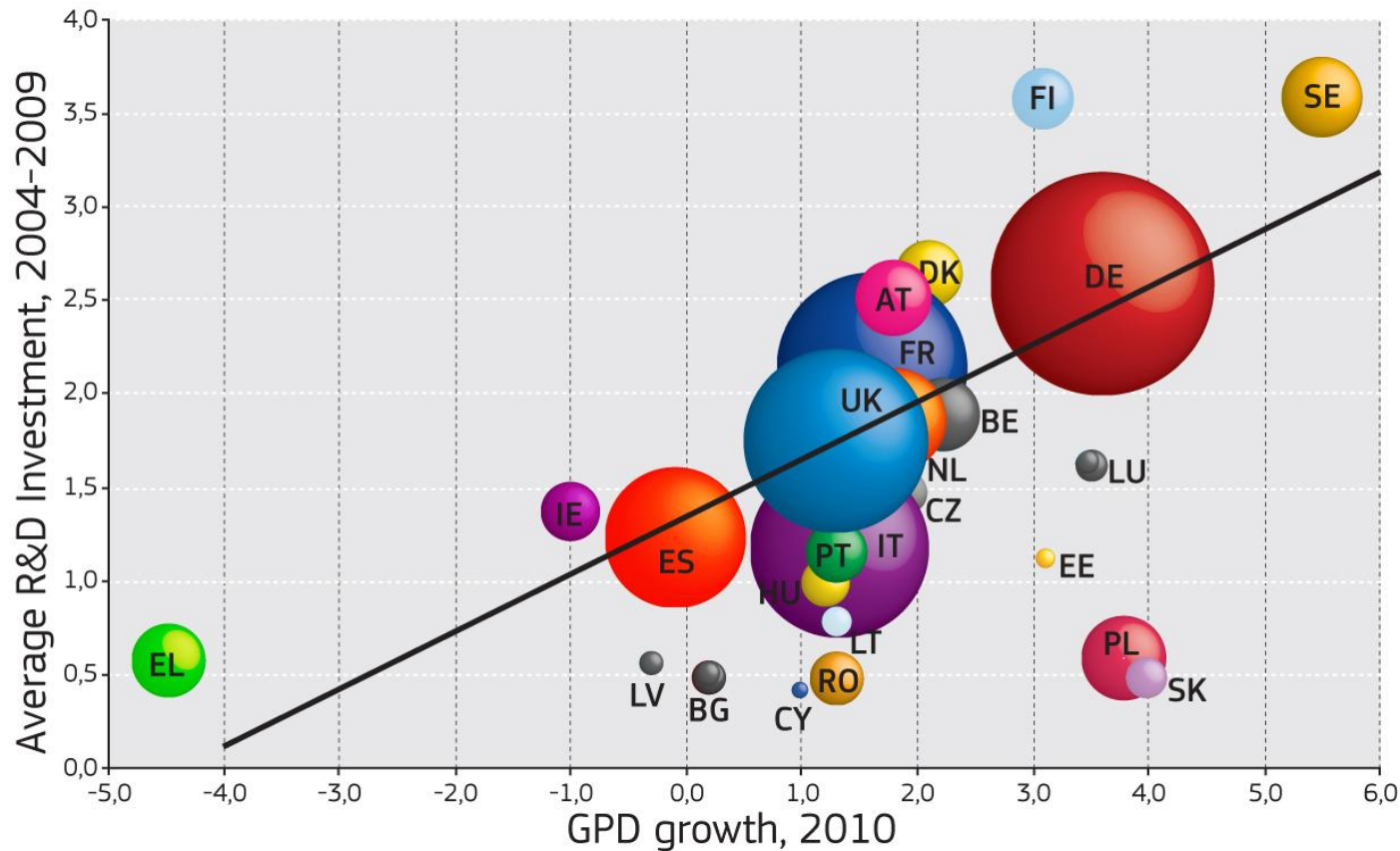
## ***3. Security and citizenship (€18.5bn)***

## ***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



# 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 than 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)

<b><i>European Research Council</i></b> Frontier research by the best individual teams	13 268
<b><i>Future and Emerging Technologies</i></b> Collaborative research to open new fields of innovation	3 100
<b><i>Marie Curie actions</i></b> Opportunities for training and career development	5 572
<b><i>Research infrastructures (including e-infrastructure)</i></b> 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>13 781</p>
<p><b><i>Access to risk finance</i></b> Leveraging private finance and venture capital for research and innovation</p>	<p>3 538</p>
<p><b><i>Innovation in SMEs</i></b> Fostering all forms of innovation in all types of SMEs</p>	<p>619 complemented by around 6 800 (expected 15% of societal challenges + LEIT) and <i>'Access to risk finance'</i> with strong SME focus</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

## 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.**

# 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

# Role of the EIT and JRC in Horizon 2020

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

***\*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***

# Euratom Programme 2014-2018

**Budget:** TOTAL: € 1665 million, including Fission €336m; Fusion € 673m; JRC € 656m.

**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**



# 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**

# 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).***

# 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)

## 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.



# 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:** *Final calls under 7th Framework Programme for research to bridge gap towards Horizon 2020*
- 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 2013:** Adoption of legislative acts by Parliament and Council on Horizon 2020
- 1/1/2014:** **Horizon 2020 starts, launch of first calls**

## More coherent use of available EU funds



Common Strategic  
Framework

Partnership  
Contract

Operational  
Programmes

- Comprehensive investment strategy: aligned with Europe 2020 objectives
- Coherence with National Reform Programmes
- Coordination: cohesion policy, rural development, maritime & fisheries funds
- Objectives and indicators to measure progress towards Europe 2020 targets
- Effectiveness: introduction of a performance framework
- Efficiency: reinforcement of administrative capacity, cutting red tape

## A menu of thematic objectives



- Research & innovation
- Information and communication technologies (ICT)
- Competitiveness of Small and Medium-sized Enterprises (SMEs)
- Shift towards a low-carbon economy
- Climate change adaptation & risk prevention and management
- Environmental protection & resource efficiency
- Sustainable transport & removing bottlenecks in key network infrastructures
- Employment & supporting labour mobility
- Social inclusion & combating poverty
- Education, skills & lifelong learning
- Institutional capacity building & efficient public administrations

## Cohesion Policy Architecture – main Funds

- **ERDF: European Regional Development Fund**
- **ESF: European Social Fund**
- **Cohesion Fund**

### Smaller Funds:

- **European Globalisation Adjustment Fund**
- **European Union Programme for Social Change and Innovation**
- **European Territorial Cooperation**
- **European Grouping of Territorial Cooperation**

**(in total 376 billion Euros proposed)**

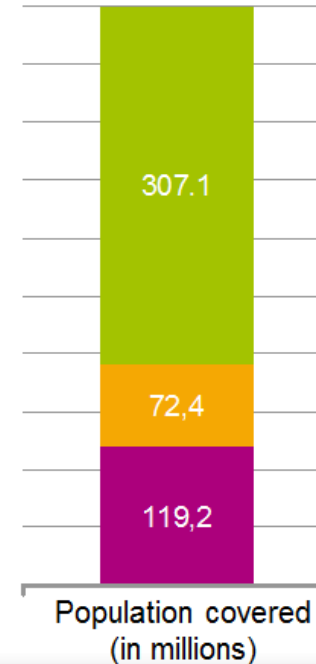
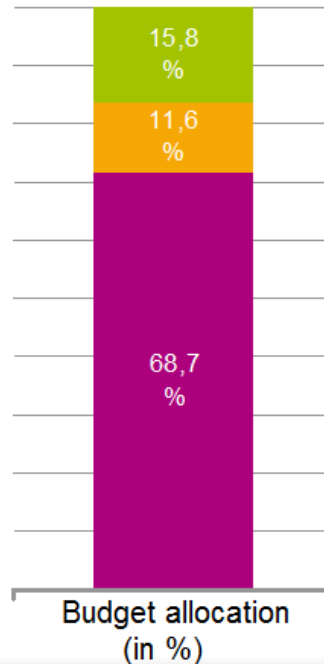
2014-2020		
Goals	Category of regions	Funds
Investment in Growth and Jobs	Less developed regions	ERDF ESF
	Transition regions	Cohesion Fund
	More developed regions	ERDF ESF
European Territorial Cooperation		ERDF

# How will funding be allocated?



■ Less developed regions/MS   
 ■ Transition regions   
 ■ More developed regions

Cohesion Fund <sup>1</sup>	68.7
Less developed regions	162.6
Transition regions	38.9
More developed regions	53.1
European Territorial Cooperation	11.7
Outermost regions and sparsely populated areas	0.9
<b>Total</b>	<b>336.0</b>






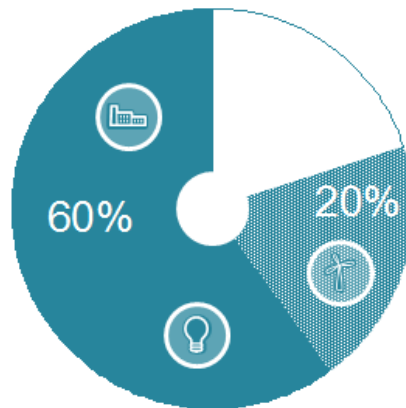
<sup>1</sup> €10 billion from the Cohesion Fund will be allocated to the Connecting Europe Facility

# Concentrating resources to maximise impact

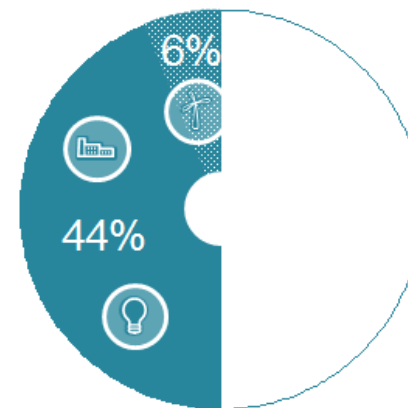


## Concentration of ERDF investments

 Energy efficiency & renewable energy
  Research & innovation
  Competitiveness of SMEs



More developed & transitional regions



Less developed regions

Flexibility – different regions have different needs  
Special arrangements for ex-convergence regions

# Synergies on the ground: coordinating the implementing Rules of H2020 and the SF

## Facilitating linkages and concerted efforts

**HARMONISATION of cost eligibility rules between Horizon 2020 and the SF** (Lump sums, flat rates and unit costs possible under both for funding direct and indirect costs without providing documents proving real expenses, harmonisation of VAT rules)

**Possibility to COMBINE Horizon 2020 funding AND ADDITIONAL FUNDING FROM THE STRUCTURAL FUNDS** in the same project but for different expenditure items, (Art. 55(8) of proposed Gen.Reg.)



# Synergies on the ground: coordinating the implementing Rules of H2020 and the SF (II)

**Possibility for a region to INVEST IN OTHER EU REGIONS from a mainstream Operational Programme, i.e. up to 10% of an OP budget (for EAFRD 3%) if the measure is for the benefit of the OP territory / important for cross-border research infrastructures (incl. ESFRI Roadmap ) or cluster or value chain networking investments (Art. 60(2))**

**ENHANCED TERRITORIAL COOPERATION BUDGET share** (3.1% of total ERDF of which almost 6% for inter-regional cooperation) should allow to build trans-national linkages between regional innovation actors



# Thank you for your attention!

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**Find out more:**

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