



# HORIZON 2020

**The New EU  
Framework Programme for  
Research and Innovation**

**2014-2020**



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# What is Horizon 2020

- **The new European Union programme for research and innovation for 2014-2020**
- **An expected budget of just over €70 billion;** 25 per cent higher in real terms than the 2007-2013 period
- **A core part of Europe 2020, Innovation Union & European Research Area:**
  - Responding to the economic crisis to invest in 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

- **Major simplification** - for all companies, universities, institutes in all EU countries and beyond
- **An integrated programme coupling research to innovation** – support from research to retail, bringing together three separate programmes/initiatives\*
- **Challenge based** - tackling major challenges facing EU society, e.g. health, clean energy and transport

\* The 7<sup>th</sup> 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



# Priority 1. Excellent science

## ***European Research Council (ERC)***

Frontier research by the best individual teams

## ***Future and Emerging Technologies***

Collaborative research to open new fields of innovation

## ***Marie Skłodowska-Curie actions (MSCA)***

Opportunities for training and career development

## ***Research infrastructures (including e-infrastructure)***

Ensuring access to world-class facilities

## Priority 2. Industrial leadership

### ***Leadership in enabling and industrial technologies***

(ICT, nanotechnologies, materials, biotechnology, manufacturing, space)

### ***Access to risk finance***

Leveraging private finance and venture capital for research and innovation

### ***Innovation in SMEs***

Fostering all forms of innovation in all types of SMEs

# Priority 3. Societal challenges

**Health, demographic change and wellbeing**

**Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy**

**Secure, clean and efficient energy \***

**Smart, green and integrated transport**

**Climate action, environment, resource efficiency and raw materials**

**Europe in a changing world – inclusive, innovative and reflective societies**

**Secure societies – protecting freedom and security of Europe and its citizens**

\* Additional support for nuclear safety and security under the Euratom Treaty

# Additional activities

***Spreading Excellence and widening participation***

***Science with and for society***

***European Institute of Innovation & Technology (EIT)***

Combining research, innovation & training in Knowledge and Innovation Communities

***Joint Research Centre (JRC)\****

Providing a robust, evidence base for EU policies

\* Additional funding for the JRC for Euratom Treaty activities



# Major Simplification

## 1. A single set of rules for all funding under Horizon 2020

- ✓ Fewer, more flexible, funding instruments
- ✓ More coherent with other new EU Programmes

## 2. Simpler reimbursement: 1 project = 1 funding rate

- ✓ 100% of the total eligible costs (70% for innovation actions)
- ✓ Single flat rate for indirect costs (25% of eligible costs)

## 3. Faster time to grant

- ✓ Within 8 months of call deadline in most cases

## 4. Fewer, better targeted controls and audits

## 5. Coherent implementation

- ✓ Through dedicated agencies with central support service within the Commission
- ✓ Single IT system

## 6. Simplification in grant agreements

- ✓ No time-sheets for personnel working full time on a project

# Challenge based approach

## More strategic work programmes

- ✓ Focusing on areas where EU level action has greatest impact
- ✓ With a coherent set of actions from research to innovation
- ✓ Greater integrated across different parts of Horizon 2020

## Less prescriptive calls

- ✓ More open to innovative proposals
- ✓ Stronger emphasis on impact
- ✓ Stimulating inter-disciplinary projects

## Two year work programmes

- ✓ Greater participation in setting work programmes, including by citizens
- ✓ More advanced notice for applicants

# Strong participation by SMEs

- **In collaborative projects** - 20% of total budget for societal challenges and enabling & industrial technologies to go to SMEs
- **A new SME instrument** in all societal challenges and enabling & industrial technologies (7% of relevant budgets)
- **Eurostars joint programme** with Member States and associated countries for research-intensive SMEs
- **Access to risk finance** to have a strong SME focus - (debt and equity facilities)
- **Support measures under 'Innovation in SMEs'**

# Contributing to the European Research Area (ERA)

- 2012 ERA framework proposal to create a single market for knowledge research and innovation
- Supported by Horizon 2020:
  - ✓ **Boosting ERA priorities** – mobility of researchers, access to infrastructures, knowledge transfer, policy learning for more effective national systems
  - ✓ **Supporting Member States to collaborate** – joint programming, ERA NETs to support joint calls/ actions
  - ✓ **Optimising access to scientific knowledge** – mandatory open access to research publications
  - ✓ **Gender mainstreaming** – gender balance in advisory structures, gender relevant topics throughout the work programme

# Strengthening socio-economic sciences and humanities

- Integrated within all societal challenges and enabling & industrial technologies:
  - ✓ Specific topics, e.g. understanding the determinants of health
  - ✓ Multi-disciplinary topics
- Specific focus in *'Europe in the world – inclusive, innovative and reflective societies'* challenge
- Bottom up support in Excellence Science:
  - ✓ European Research Council
  - ✓ Marie Skłodowska-Curie actions
  - ✓ Research Infrastructures

# Widening participation

- **Clear division of labour:**

- ✓ **Cohesion policy (European Investment and Structural Funds):** support for regions to build research and innovation capacity through smart specialisation strategies
- ✓ **Horizon 2020:** funding the best proposals on basis of competitive calls with simplified access, support to policy reforms, and specific measures to spread excellence and wider participation

- **Specific measures**

- ✓ **Twinning** with leading research organisations
- ✓ **Teaming** to invest in new/improved Centres of Excellence
- ✓ **ERA chairs** to attract outstanding academics
- ✓ **Access to international networks**, through COST
- ✓ **Support to development of smart specialisation strategies**

# International cooperation

- **Principle of general openness:** the programme will remain to be the most open funding programme in the world
- Open to the **association** of: acceding countries, candidate countries, potential candidates & selected international partner countries meeting criteria
- Targeted actions to be implemented taking **a strategic approach to international cooperation**

# Partnerships with industry and Member States

**€22 billion Innovation Investment Package** proposed by Commission (July 2013)

**Joint Technology Initiatives** (with industry under Article 187):

- Innovative Medicines Initiative
- Clean Sky (Aeronautics)
- Fuel Cell and Hydrogen
- Biobased industries
- Electronic components and systems

**Joint programmes** (with Member States, under Article 185)

- European and Developing Countries Clinical Trials Partnership (EDCTP)
- European Metrology Research Programme
- Eurostars (for SMEs)
- Active and Assisted Living



# Next steps

- **Legislative decision on EU budget (2014-20)** *Autumn 2013*
- **Legislative decisions on Horizon 2020** *Autumn 2013*
- **Horizon 2020 launch events** *Oct - Jan 2014*
- **Launch of first calls for proposals** *11 December 2013*
- **Launch of Joint Technology Initiatives and Joint Programmes with Member States** *Beginning 2014*

# Performance of Romania in FP7

- **Romanian participants in 694 projects** (signed grant agreements)
- **High SME participation: 22 %** of total Romanian participations (EU : **18 %**)
- **Greatest EU contribution to Romanian participants in:**
  - ICT,
  - Nanosciences & Nanotech, Materials and new Production Technologies
  - Research Potential,
  - Transport,
  - Research for the benefit of SMEs
  - Environment
- **Romanian success rate (14,6%) is lower than EU average (20,6%)**

# Romania performs better and better in Framework Programmes

- 7<sup>th</sup> Framework Programme (2007-13) contribution to Romania (€ 115 m) so far:
- **More than doubled** compared to the 6<sup>th</sup> Framework Programme (2002-2006)
- **More than four times** compared to the 5<sup>th</sup> Framework Programme (1998-2002)
- Horizon 2020?

# Horizon 2020 can further help to realise Romania's ambitions!

- A clear and smart specialisation strategy building on domains where Romania has a good industrial tradition and S&T strengths (i.e. chemical industry, ICT, automotive sector)
- Increased efforts at national level to strengthen R&I capacity to ensure successful applications for competitive EU funding
- Closer links between research, innovation and industry by prioritising R&D activities in the new national strategy that attract private investment



European  
Commission



# HORIZON 2020

**Thank you  
for your attention!**

**Find out more:**

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

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