



# **HORIZON 2020: The EU Framework for Research and Innovation**

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## CONTENT

- Horizon 2020 (H2020): **context** and **key aspects**
- Horizon 2020 (H2020): **opportunities for young researchers** and how to find them
- Tips on how to write a **competitive H2020 proposal**
- **Questions**



## CONTENT: SOME FIGURES

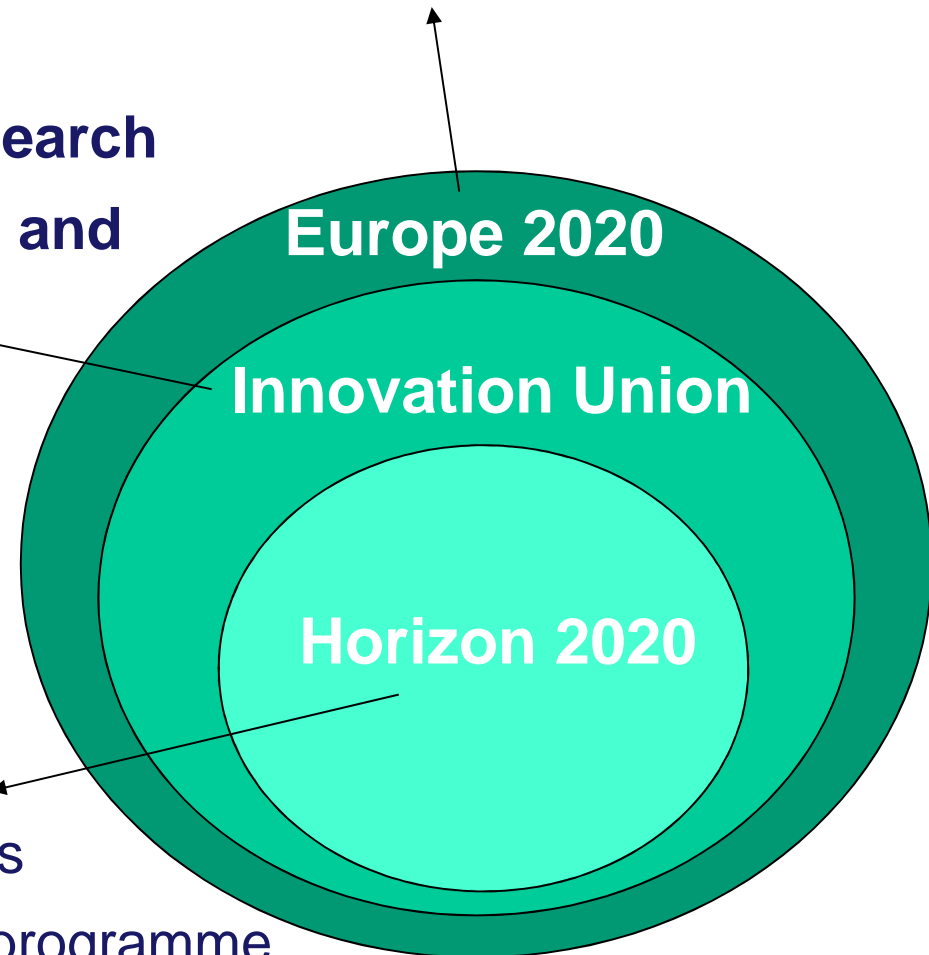
- **65 calls** launched in 2014
- ca. **40.000 proposals** submitted in the first 10 months of H2020 (first deadlines in April 2014)
- current **overall average success rate** of H2020 grant proposals: **14,53 %** (based on evaluated 26.321 proposal)
- Upcoming adoption of Work programmes 2016-2017 and publication of calls

## HORIZON 2020 – the context

### Strategy for a smart, sustainable and inclusive economy

Do much better at **turning research into new and better services and products** to remain **competitive** on the global marketplace and **improve the quality of life** in Europe

Financial Instrument for the Innovation Union (2014-2020) as EU **Research and Innovation** programme





## HORIZON 2020 – the context

### 7 flagship initiatives of Europe 2020:

Digital agenda for Europe

***Innovation Union***

Youth on the move

**Smart growth**

Resource efficient Europe

An industrial policy for the globalization era

**Sustainable  
growth**

An Agenda for new skills and jobs

European Platform against poverty

**Inclusive growth**



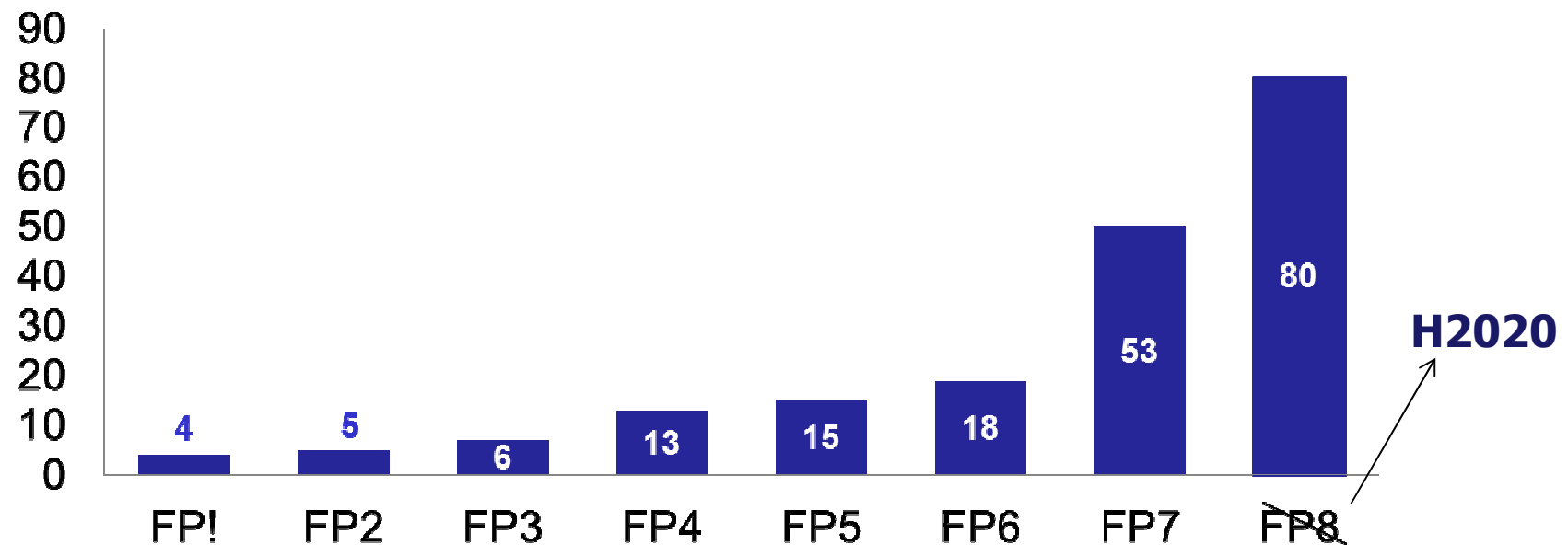
## HORIZON 2020 – the name

- **Online vote in 2011** to name the future EU-funding programme for research and innovation
- **"2020"**: to show clearly that the funding system is designed to support the research and innovation objectives of the Europe 2020 Strategy
- **"Framework Programme for Research and Innovation"**: to show an element of continuity with the past but with a new vision
- *"the new name is an **important symbol** of a **new departure** and a **new adventure**"* (quote from press release June 21<sup>st</sup> 2011 by Research, Innovation and Science Commissioner Máire Geoghegan-Quinn)



## HORIZON 2020 – the budget

### RTD Framework Programmes Budget (Bn €)



- biggest EU Research and Innovation programme ever with nearly €  
**80 billion of funding available**



## HORIZON 2020 – the structure

### Excellent Science

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

**32 % of budget**

### 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

**22% of budget**

### Societal Challenges

- Health, demographic change and wellbeing
- Food security, sustainable agriculture, marine and maritime research & the bioeconomy
- Secure, clean and efficient energy
- Smart, green and integrated transport
- Climate action, resource efficiency and raw materials
- Inclusive, innovative and reflective societies
- Security society

**38 % of budget**

European Institute of Innovation and Technology (EIT)

Science with and for society

Euratom

Spreading Excellence and Widening Participation

Fast track to Innovation (2015-2016)

8%  
budget





## HORIZON 2020 – some rules of the game

- **Participant Portal (PP)**: the only entry point for electronic administration of EU-funded research and innovation projects
- **Two-year work programmes (WP) = Calls for proposals ('calls')**: published during the year with a deadline (cut-off or single):
  - topics
  - **challenge-based**
  - focus on added value of **innovation**
  - focus on **impact**
  - **interdisciplinarity**
  - **non academic sector** plays a crucial role
  - eligibility



## HORIZON 2020 – Topic structure

### SPECIFIC CHALLENGE

- sets the context, the problem to be addressed, why intervention is necessary

### SCOPE

- delineates the problem, specifies the focus and the boundaries of the potential action BUT without describing specific approaches

### EXPECTED IMPACT

- describe the key elements of what is expected to be achieved in relation to the specific challenge



# Opportunities in H2020: the participant portal

RESEARCH & INNOVATION  
Participant Portal

European Commission > Research & Innovation > Participant Portal > Funding Opportunities

HOME **FUNDING OPPORTUNITIES** HOW TO PARTICIPATE EXPERTS SUPPORT

Search Topics

Call Updates

Calls

H2020

Research Fund for Coal & Steel

COSME

3rd Health Programme

Consumer Programme

FP7 & CIP Programmes 2007-2013

Calls

Other Funding Opportunities

Funding Opportunities

Find the European Union funding opportunities and search for new or closed calls of the programmes described on this page.

H2020 ONLINE MANUAL

Horizon 2020

COSME

3rd HEALTH PROGRAMME

CONSUMER PROGRAMME

Research Fund for Coal and Steel (RFCS)

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/index.html>



## HORIZON 2020 – Calls on the PP

- EXCELLENCE SCIENCE CALL FET OPEN
- INDUSTRIAL LEADERSHIP - FAST TRACK CALL
- SOCIETAL CHALLENGE 4 - EFFICIENT ENERGY



## HORIZON 2020 – The Participant Portal (PP)

### **Non-registered users may:**

- ✓ search for funding
- ✓ read the funding guide & download the legal documents
- ✓ check if an organisation is already registered
- ✓ get the information on expert database
- ✓ contact the support services or check FAQs

### **Registered users may:**

- ✓ submit a proposal
- ✓ sign the grant
- ✓ manage their project throughout its lifecycle
- ✓ register as an expert



## HORIZON 2020 – Eligibility

- **28 EU Member States**
- **Overseas Countries** and Territories (OCT) linked to the Member States
- **Countries Associated** to Horizon 2020
- Specific rules for participation of **Third countries**

([http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html#h2020-grants-manual-hi](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-grants-manual-hi))



## Horizon 2020: Type of actions

### **RIA: Research and Innovation Action**

- ✓ activities aiming to establish new knowledge and/or to explore feasibility of new or improved technology, product, process, service or solution
- ✓ basic and applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory
- ✓ Funding: 100%
- ✓ Minimum requirements: 3 partners from 3 different MS/AC
- ✓ Usually € 2.000.000,00 to 8.000.000,00 EU funding



## Horizon 2020: Type of actions

### IA: Innovation Action

- ✓ Actions primarily consisting of activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes
- ✓ may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication
- ✓ Funding: 100% to and 70%
- ✓ Minimum requirements: 3 partners from 3 different MS/AC
- ✓ Usually not designed for researchers, but for private sector (including HEI if their role is on innovation)





## Horizon 2020: Type of actions

### **CSA: Coordination and support action**

- ✓ consisting primarily of accompanying measures: standardisation, dissemination, awareness-raising and communication, networking, coordination or support services, policy dialogues and mutual learning exercises and studies, including design studies for new infrastructure
- ✓ May include complementary activities of networking and coordination between programmes in different countries
- ✓ Funding: 100%
- ✓ Minimum requirement: 1 legal entity



## Horizon 2020: selection criteria

### - **EXCELLENCE:**

- ✓ **Clarity** and **pertinence** of the objectives
- ✓ Credibility of the **proposed approach**, including **trans-disciplinary considerations**
- ✓ Extent that proposed work is **ambitious**, has **innovation potential**, and is **beyond the state of the art**
- ✓ Soundness of concept

### - **IMPACT:**

- ✓ **Expected impacts** listed in the work programme
- ✓ Enhancing innovation capacity and **integration of new knowledge**



## Horizon 2020: selection criteria

### - **IMPACT:**

- ✓ Strengthening the **competitiveness** and **growth of companies** by developing innovations meeting the needs of European and global markets
- ✓ Effectiveness of measures to **exploit and disseminate the project results** (including management of **IPR**)

### - **IMPLEMENTATION:**

- ✓ **Coherence** and **effectiveness** of the work plan, including appropriateness of the allocation of tasks and resources
- ✓ **Complementarity of the participants** within the consortium
- ✓ Appropriateness of the **management structures** and **procedures**, including risk and innovation management.



## Opportunities for young researchers

### **Early-stage researchers (PhD students):**

- They cannot directly apply to H2020 calls
- They can be involved in project proposals submitted by the legal entity where they work

### **Experienced researchers (post-docs):**

- They can directly apply to H2020 calls
- They can be involved in project proposals submitted by the legal entity where they work



## Opportunity 1: ERC Starting grant

### ERC STARTING GRANT

**Objective:** support excellent Principal Investigators (PIs) at the career stage at which they are starting their own independent research team/programme.

Bottom-up approach

### Main features (call 2015)

- ✓ Any nationality of applicant
- ✓ PhD at least 2 and up to 7 years prior 1/1/2015
- ✓ Ground-breaking nature of the project idea
- ✓ at least one important publication without participation of PhD supervisor
- ✓ track record of early achievements



## Opportunity 1: ERC Starting grant

- ✓ Grant up to € 1.500.000,00 for 5 year (+ € 500.000,00 for “start-up” costs)
- ✓ Research to be conducted at a EU Member State / Associated countries
- ✓ PI shall spend a minimum of 50% of total working time on the ERC project
- ✓ In the budget proposal PIs can include PhD students



## Opportunity 2: MSC Actions

- ✓ Open to all domains of research and innovation from basic research up to market take-up and innovation services
- ✓ **bottom-up** approach
- ✓ Participation of **non-academic sector** strongly encouraged, especially industry and SMEs
- ✓ **Mobility** as key requirement
- ✓ Promotion of **attractive working and employment conditions**
- ✓ Particular attention to **gender balance**
- ✓ **Public engagement** of supported researchers

<http://ec.europa.eu/research/mariecurieactions/>



## Opportunity 2: MSC Actions Individual Fellowships

### Objectives:

- ✓ enhance the creative and innovative potential of **experienced researchers**
- ✓ provide opportunities to acquire new knowledge, work on research projects in a European context or outside Europe, resume a career or return to Europe

### Main features (from call 2015):

- ✓ Individual, trans-national fellowships awarded to the best or most promising researchers
- ✓ European Fellowships or Global Fellowships
- ✓ Career Restart Panel and Reintegration Panel





## Opportunity 2: MSC Actions Individual Fellowships

### Main features (from call 2015):

- Duration of projects: maximum 2 years (IF Global: maximum 3 years)
- Support to experienced researchers of any nationality (IF Global and IF Reintegration: nationals of EU MS/AC and long-term residents)
- Host institution and supervisor
- 3 or 6 month secondment option
- Involvement of **non-academic sector** as added value



## Opportunity 2: MSC Actions Individual Fellowships

✓ Financial aspects

Researcher unit cost in Euro (person/month)			Institutional unit cost in euro (person/month)	
Living allowance*	Mobility allowance	Family allowance	Research / training	management / indirect costs
€ 4.650,00	€ 600,00	€ 500,00	€ 800,00	€ 650,00

\* *Adjustement through country correction coefficient*

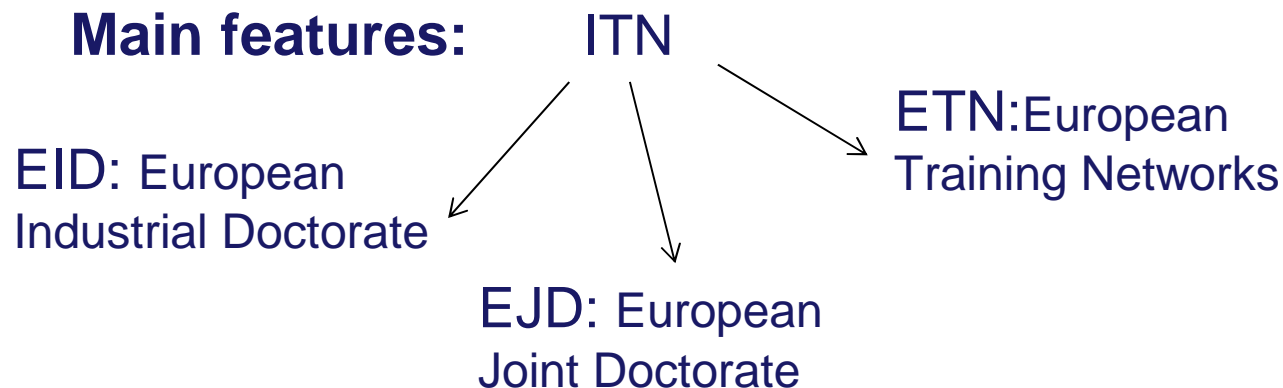


## Opportunity 3: MSC ITN

### Objectives:

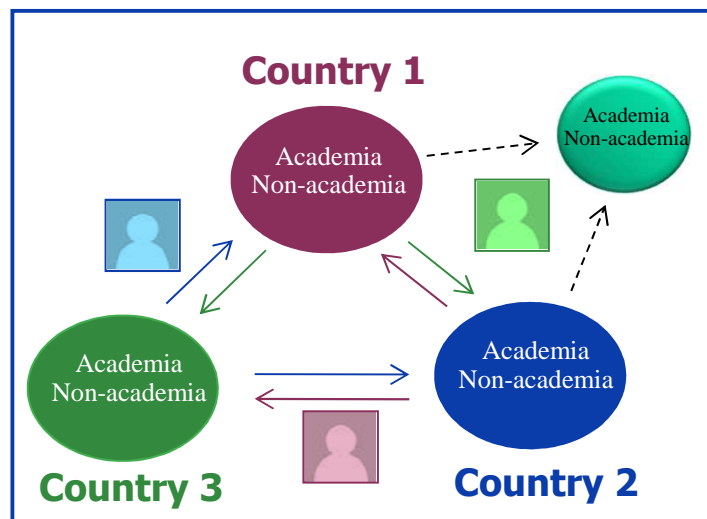
- ✓ raise **excellence** and structure research and **doctoral training**
- ✓ train a new generation of creative, entrepreneurial and innovative early-stage researchers

### Main features:

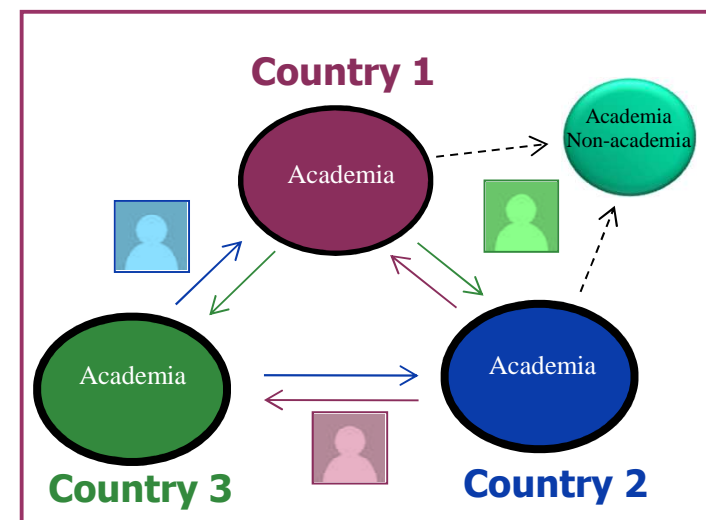


- ✓ Dimension of mobility and focus on innovation skills
- ✓ Duration of projects: maximum 4 years
- ✓ At least three partners (2 for EID)

## Opportunity 3: MSC ITN

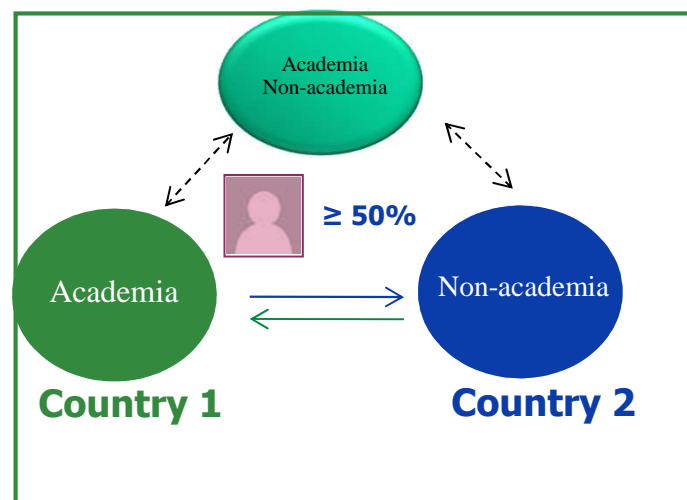


European  
Training  
Networks



European  
Joint  
Doctorates

European Industrial  
Doctorates





## Opportunity 4: MSC RISE and Co-Fund

- **Research and Innovation Staff Exchange (RISE)**

To promote international and inter-sector collaboration through research and innovation, strengthen the interaction between organisations in the academic and non-academic sectors, and between Europe and third countries

*Staff mobility included*

- **Co-funding of regional, national and international programmes (COFUND)**

To stimulate regional, national or international programmes to foster excellence in researchers' training, mobility and career development

*PhD mobility included*



## USEFUL SOURCE OF INFORMATION

- ✓ **Europe 2020:** [http://ec.europa.eu/europe2020/index\\_en.htm](http://ec.europa.eu/europe2020/index_en.htm)
- ✓ **Horizon 2020:** <http://ec.europa.eu/programmes/horizon2020/en/>
- ✓ **ERC:** <http://erc.europa.eu/>
- ✓ **MSC:** <http://ec.europa.eu/research/mariecurieactions/>
- ✓ **European Charter for Researchers and Code of Conduct for the Recruitment of Researchers:**  
<http://ec.europa.eu/euraxess/index.cfm/rights/europeanCharter>
- ✓ **Subscribe to H2020 Magazine:** <http://horizon-magazine.eu/>



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[collina.research@unitn.it](mailto:collina.research@unitn.it)**