HORIZON 2020: The EU Framework for Research and Innovation

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Povo, May 11th 2015
- 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
- **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
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
7 flagship initiatives of Europe 2020:

- Digital agenda for Europe
  - Innovation Union
- Youth on the move

- Resource efficient Europe
- An industrial policy for the globalization era

- An Agenda for new skills and jobs
- European Platform against poverty

Smart growth
Sustainable growth
Inclusive growth
- **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\textsuperscript{st} 2011 by Research, Innovation and Science Commissioner Máire Geoghegan-Quinn)
- 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*

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

**Science with and for society**

**Euratom**

**Spreading Excellence and Widening Participation**

**Fast track to Innovation (2015-2016)**

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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
<table>
<thead>
<tr>
<th>SPECIFIC CHALLENGE</th>
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<tr>
<td>sets the context, the problem to be addressed, why intervention is necessary</td>
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<tr>
<th>SCOPE</th>
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<td>delineates the problem, specifies the focus and the boundaries of the potential action BUT without describing specific approaches</td>
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<tr>
<th>EXPECTED IMPACT</th>
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<td>describe the key elements of what is expected to be achieved in relation to the specific challenge</td>
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Opportunities in H2020: the participant portal

HORIZON 2020 – Calls on the PP

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

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
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)
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

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<tr>
<th>Researcher unit cost in Euro (person/month)</th>
<th>Institutional unit cost in euro (person/month)</th>
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<tbody>
<tr>
<td>Living allowance*</td>
<td>Research / training</td>
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<tr>
<td>€ 4.650,00</td>
<td>€ 800,00</td>
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<tr>
<td>Mobility allowance</td>
<td>management / indirect costs</td>
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<tr>
<td>€ 600,00</td>
<td>€ 650,00</td>
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<tr>
<td>Family allowance</td>
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<td>€ 500,00</td>
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* 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:**
- ITN
- EID: European Industrial Doctorate
- EJD: European Joint Doctorate
- ETN: European Training Networks

- ✓ 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

Country 1
- Academia
- Non-academia

Country 2
- Academia
- Non-academia

Country 3
- Academia
- Non-academia

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)
THANK YOU FOR YOUR ATTENTION!

FOR ANY QUESTION WRITE AN EMAIL TO:
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