Big picture of Horizon 2020



PACIFIC-EUROPE NETWORK FOR SCIENCE, TECHNOLOGY AND INNOVATION

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Overview

- 1. Structure of Horizon 2020
- 2. Basic rules of participation
- 3. International cooperation aspects
- 4. Individual opportunities
- **5.** Collaborative opportunities
- 6. SME opportunities
- 7. Strategy & hints



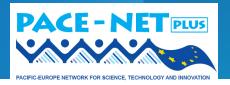




Quick facts

- Budget: €70+ billion
- **Duration:** 2014-2020
- Participants: global
- **Success rate:** 10-20% (for previous FP7)
- Fields of research: all (including SSH)
- Funding: 100% + 25%
- **Calls:** first calls closing now (Mar-Apr), second calls already open in advance
- **General information:** *ec.europa.eu/programmes/horizon2020*





Excellent Science

- European Research Council (ERC)
- Future and Emerging Technologies (FET)
- Marie Skłodowska-Curie actions (MSCA)
- European Research Infrastructures, including e-Infrastructures





Industrial Leadership

- Leadership in Enabling and Industrial Technologies (LEIT)
 - Information and Communication Technologies (ICT)
 - Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing, and Biotechnology
 - Space
- Access to risk finance
- Innovation in SMEs





Societal Challenges (SC)

- 1. Health, Demographic Change and Wellbeing
- 2. Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy
- 3. Secure, Clean and Efficient Energy
- 4. Smart, Green and Integrated Transport
- 5. Climate Action, Environment, Resource Efficiency and Raw Materials
- 6. Europe in a changing world Inclusive, innovative and reflective societies
- Secure societies Protecting freedom and security of Europe and its citizens

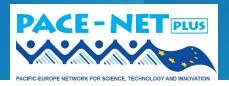




- Spreading Excellence and Widening Participation
- Science with and for Society
- European Institute of Innovation and Technology (EIT)

Euratom





2. Basic rules of participation

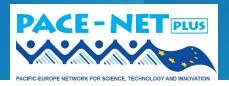
http://ec.europa.eu/research/participants/data/ref/h2020/legal_basis/rules_participation/h2020-rules-participation_fr.pdf

 Minimum 3 independent legal entities, established in 3 separate EU Member States or Associated Countries

 Plus any other legal entity from any country (unless excluded by the EC)

- For ERC & MCSA individual grants, only 1 legal entity is required
- Other exceptions are noted in individual calls





2. Basic rules of participation

¹ http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-a-countries-rules_en.pdf ² http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/3cpart/h2020-hi-3cpart_en.pdf

Automatic and full funding for participants from:

- EU Member States
 - including OCTs (inc. New Caledonia & French Polynesia)
- Horizon 2020 Associated Countries
 - Albania, Bosnia & Herzigovina, Faroe Islands, FYRoM, Iceland, Israel, Liechtenstein, Moldova, Montenegro, Norway, Serbia, Turkey
- Plus all other countries listed in ² above (this includes most PICTs)
 Notable exceptions:
- Andorra, Australia, Brazil, Canada, China, India, Japan, Mexico, Monaco, New Zealand, Russia, San Marino, Saudi Arabia, Singapore, South Korea, Switzerland^{*}, Taiwan, UAE, USA, Vatican





2. Basic rules of participation

- Evaluation of proposals based on:
- a. Excellence
- b. Impact
- c. Quality & efficiency of implementation
 Different weightings depending on call, e.g.:
- innovation actions may focus on Impact
- ERC grants only consider Excellence





3. International cooperation aspects

- Horizon 2020 is open to participants from *all* countries
- Coordinator can be from any country, but usually Member State or Associated Country
- Many call topics will target specific countries/regions
- EC may exclude some countries from participation (e.g. joint calls)
- EC may allow funding for some countries
- EU participants sign contract under EU law, but other countries sign contract under Belgian law





3. International cooperation aspects

Funding to countries such as Australia, China, USA, etc. is possible when:

- There is a specific bilateral agreement that includes funding,
- The call topic allows for it, or
- Their participation is essential to address the topic (e.g. global leader, infrastructure, location, unique data)





4. Individual opportunities

European Research Council (ERC)

- erc.europa.eu
- Investigator driven grants for the best researchers (Excellence)
- Highly prestigious, highly competitive
- Any research topic, any field
- Any researcher of any nationality can apply
- Portable grant







4. Individual opportunities

- Must undertake the project at a host institution in MS/AC (including private enterprise)
- Can include international partners (with funding)
- Must spend at least 50% (30% for AdG) of time working on project, and 50% of time in MS/AC– i.e. joint appointments are possible
- Funding for up to 5 years
- Starting Grant (StG), 2-7 years after PhD, €1.5 million + €0.5 million
- Consolidator Grant (CoG), 7-12 years after PhD, €2 million + €0.75 million
- Advanced Grant (AdG), €2.5 million + €1 million





4. Individual opportunities

Marie Skłodowska-Curie actions (MSCA)

(covered in another presentation)

- Excellent mechanism for building lab-lab relationships and long-term collaborations
- Ideal for promoting mobility amongst regional research partners in the Pacific





- Topics are prescribed by the EC
- Calls usually open July, open for 3-6 months
- Many different types of projects:
 - Networks on topics, or in regions
 - Coordination actions
 - Collaborative projects (5-60 partners)





- Step 1: Read the Work Programme
- Step 2: Contact colleagues
- Step 3: Attend InfoDay in Europe
- Step 4: Build consortium
- Step 5: Develop & submit proposal
- Step 6: Evaluation

Step 7: *Negotiation* with EC, sign *Grant Agreement* Step 8: Start project





Major calls for 2015 in PACE-Net Plus priority areas:

- Personalising health and care
- Blue Growth: Unlocking the potential of seas and oceans
- Sustainable food security
- Innovative, sustainable and inclusive bioeconomy
- Water Innovation: Boosting its value for Europe
- Growing a low carbon, resource efficient economy with a sustainable supply of raw materials
- Waste: A resource to recycle, reuse and recover raw materials





Other interesting areas:

- Biotechnology
- Nanotechnologies, advanced materials and production
- Earth observation
- Factories of the future
- Energy-efficient buildings
- Information and communications technologies





- Smart cities and communities
- Competitive low carbon energy
- Mobility for growth
- Green vehicles
- New forms of innovation
- Reflective societies: cultural heritage and European identities





- The young generation in an innovative, inclusive and sustainable Europe
- Overcoming the crisis: new ideas, strategies and governance structure for Europe
- Europe as a global actor
- Fight against crime and terrorism
- Border security and external security/disaster-resilience: safeguarding and securing society, including adapting to climate change
- Digital security: cybersecurity, privacy and trust





How to find call topics?

 Go to the Participant Portal <u>ec.europa.eu/research/participants/portal</u>





6. SME opportunities

- Most parts of Horizon 2020 are equally open to all actors, including SMEs
- Think carefully about:
 - Time costs / financial capacity
 - Timeline of the project

Access to risk finance

- Support and training for SMEs
- Direct and indirect finance

Innovation in SMEs

• Support for *innovation management* – from idea to market





7. Strategy & hints

- Let an experienced coordinator do the hard work for the proposal
- Approach your EU colleagues & consider your regional partners
- Accentuate your unique assets / capabilities
- Politics
- Remember: Excellent, Impact, Quality
- Join a COST Action (*www.cost.eu*)
- Become an evaluator





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