

Horizon 2020 infoday

Uccle Plateau

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Agenda

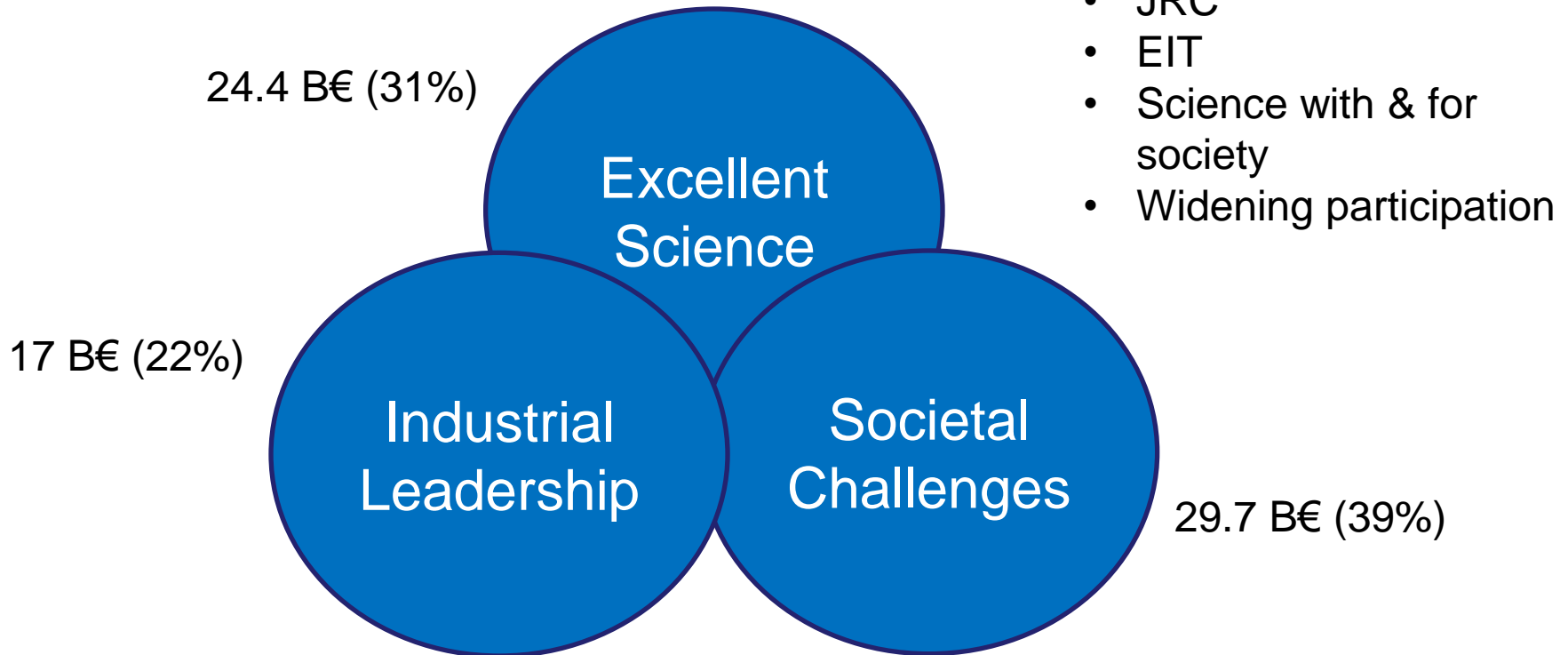
1. Horizon 2020
2. Eurofed team and services
3. Work Programme 2017
4. More information
5. Q&A

1. Horizon 2020

What is Horizon 2020?

- Largest Framework Programme for Research and Innovation from the European Commission for the period 2014-2020 (75 billion €)
- Financial instrument to implement the Innovation Union
- Coupling research to innovation
- Challenge based

3 pillars



Pillar 1: Excellent Science

- **European Research Council (ERC)**
Frontier research, all fields of science, all nationalities
- **Marie-Sklodowska-Curie actions (MSCA)**
Training and career development
- **Future and Emerging Technologies (FET)**
Collaborative research to open up new and promising fields of research & innovation
- **European Research Infrastructures (RI)**
Ensure access to world-class RI (incl. e-RI) in EU and beyond

Pillar 2: Industrial Leadership

- Leadership in enabling and industrial technologies (LEIT)
 - **Information and Communication Technologies (ICT)**
 - Nanotechnologies, advanced materials, advanced manufacturing & processing
 - Biotechnology
 - **Space**
- Access to risk finance
- Innovation in SMEs

Pillar 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**
- **Inclusive, innovative and reflective societies**
- **Secure Societies**

Horizontal pillar

- **Science with & for society**
- Widening participation
- **Joint Research Centres (JRC)**
- The European Institute of Innovation and Technology (EIT)

2. Eurofed team and services

Who are we ?

- Horizon 2020 National Contact Points of the Belgian federal government
- Eurofed is a part of the Belgian Science Policy office (BELSPO)

Who are we ?

- 3 team members; one new member since 01/05/2016



What are our tasks ?

- Inform the federal actors about Horizon 2020 and give advice about the challenges that could be of interest to you
- Inform about open calls and future calls (role of programme committee)
- Support federal actors in submitting proposals and managing projects

How can we help you ?

- Inform you:
 - The [Eurofed website](#)
 - Our newsfeed (in English): please subscribe!
 - Twitter-account
- Answer to your questions: don't hesitate to send us an e-mail or give us a call

How can we help you ?

- Infosessions:
 - Tailor-made infosessions in your organisation
 - Challenge specific infodays together with our colleagues from regions and communities
 - General infosessions like ‘How to avoid errors in H2020’ and ‘How to write a proposal’
 - Face-to-face meetings
- Feedback on your proposal

3. Work Programme 2017

Pillar 1: Excellent Science

European Research Council

- Autonomous funding body launched in 2007
- Led by scientists (22 scientists in the Scientific Council)
- Grants for excellent researchers, of any nationality, to perform frontier research in Europe
- All fields of science

ERC - Grants

Starting Grants
2-7 years after PhD
Up to 1.5 (+0.5) M€
for 5 years
Deadline: 18 Oct
2016
Budget: 605 M€
Projects: 415

Consolidator Grants
7-12 years after PhD
Up to 2 (+0.75) M€
for 5 years
Deadline: 9 Feb
2017
Budget: 575 M€
Projects: 320

Advanced Grants
>12 years after PhD
Up to 2,5 (+1) M€
for 5 years
Deadline: 31 Aug
2017
Budget: 567 M€
Projects: 245

Proof of Concepts
Up to 150.000€ for ERC grantees
Deadline: 19 Jan, 25 Apr, 5 Sept 2017
Budget: 15 M€

ERC- Evaluation

- Only criteria is excellence
- 2 step evaluation
- Step 1: remote evaluation by PM of the CV and synopsis (kill 80% of excellent proposals). PM are generalists (25 panels)
- Step 2: Remote assessment of full proposals by PM and reviewers, panel meeting and interview (StG and CoG). 50% success
- Restriction to resubmission of proposals to future calls

Marie Skłodowska-Curie actions

- Innovative Training Networks (ITN) – Only ESR

Main EU programme for structured doctoral training (early stage training).

Deadline: 10/01/17; 430 M€

Research and Innovation Staff Exchange (RISE)

To promote international and inter-sectoral collaboration through research and innovation staff exchanges

Deadline: 05/04/17; 80 M€

- Individual Fellowships (IF) – Only ER

Deadline: 14/09/17; 248.7 M€

MSCA - ITN

- International network of partners which recruit and host ESRs based on joint research training/doctoral programme. Open to MS/AC/TC
- Research fields chosen by applicants in multi/interdisciplinary and emerging fields of S&T.
- Training through individual research projects within the framework of the overall research topic.
- Meaningful exposure to the non-academic sector.
- Typical project duration 48 months. Researchers 3-36 months

3 implementation modes

**European
Training
Networks**

370 M€

8 scientific panels
Min 3 MS/AC

**European
Industrial
Doctorates**

28 M€

Separate evaluation panel
2 MS/AC (1 Acad/1 Non Acad)

**European
Joint
Doctorates**

32 M€

Separate evaluation panel
3 MS/AC entitled to deliver PhD

ITN - Funding

| Living allowance | Mobility allowance | Family allowance | Research, training and networking costs | Management and indirect costs |
|------------------|--------------------|------------------|---|-------------------------------|
| 3110 | 600 | 500 | 1800 | 1200 |

- Country coefficient for the living allowance
- Institutional costs can be redistributed

MSCA - RISE

- Project built on joint research and innovation activities
- Project implemented through the secondment of staff (no recruitments). All R&I& management staff (employed 6 month prior to secondment)
- Each staff member seconded for a period of 1 to 12 months
- Maximum project duration is 4 years, 540 researchers months
- No mobility rules
- Accent is on transfer of knowledge (return mechanism)

RISE - Implementation

- Min 3 participants from 3 countries, min 2 MS/AC
- Secondment: international and/or intersectoral
- If all MS/AC, 1 academic and 1 non-academic
- MS (Ac) seconded to MS (N Ac) YES
- MS (Ac/N Ac) seconded to TC (Ac/N Ac) YES

RISE - Funding

| Staff member unit person/month Top up allowance | Research, training and networking costs | Management and indirect costs |
|---|--|-------------------------------------|
| 2000 | 1800 | 700 |

- No country coefficient

MSCA - IF

- To enhance the creative and innovative potential of experienced researchers through advanced training, international and intersectoral mobility
- **European Fellowships:** researcher comes to or move in EU (12-24 months)
- **Global Fellowships:** researcher is seconded to an outside EU country, return-phase of 1 year is mandatory (24-36 months)
- Also support to reintegration, return grants and restart of career
- Mobility rule: < 12 month in the last 3 years in host country at deadline

IF- Typical activities

- Concrete plan of training through research (Career development plan at the beginning of the fellowship)
- Transferable skills
- Communication & Dissemination activities
 - Account for the use of funding
 - Present results and relevance of it to public
- Public engagement
 - Present activities to students
 - Awareness of research and implications

IF- Funding

| Researcher unit costs person/month | | | Institutional unit cost person/month | |
|------------------------------------|--------------------|------------------|---|-------------------------------|
| Living allowance | Mobility allowance | Family allowance | Research, training and networking costs | Management and indirect costs |
| 4650 | 600 | 500 | 800 | 650 |

Country coefficient following the country of the host institution

European Research Infrastructures

- Research infrastructures: facilities, resources and services used by the research communities to conduct research and foster innovation in their fields.
- Major scientific equipment (or sets of instruments); knowledge-based resources such as collections, archives or scientific data; e-infrastructure, such as data and computing systems and communication networks; and any other infrastructure of a unique nature essential to achieve excellence in research and innovation.
- RI can be *single-sited, virtual or distributed*.

European Research Infrastructures

1. Developing new world-class research infrastructures
2. Integrating and opening research infrastructures of pan-European interest
3. E-infrastructures
4. Support to Innovation, Human resources, Policy and International cooperation

European Research Infrastructures

1. Developing new world-class RIs

- Design studies
- ESFRI preparatory phase
- European Open Science Cloud

European Research Infrastructures

2. Integrating & opening RIs of pan-EU interest

- Focus on Societal challenges and Industrial Leadership
- Address 2 communities:
 - Starting communities: networking, standardisation and TNAs & services
 - Advanced communities: innovation and widening TNAs and services

European Research Infrastructures

3. E-infrastructures

- Integration and consolidation of e-infra platform
 - Support to PRACE
 - Data and Distributed Computing e-infrastructures for Open Science
- Prototyping innovative e-infrastructure platforms and services for research and education communities, industry and the citizens at large
 - Platform-driven e-infrastructure innovation
 - User-driven e-infrastructure innovation

European Research Infrastructures

4. Support to Innovation potential of RI, Policy and International cooperation

Pillar 2: Industrial Leadership

Leadership in Enabling and Industrial Technologies – ICT

Information and Communication Technologies

- Opening date: 8 December 2016
- Deadline: 25 April 2017
- Indicative budget for this call: € 625.5 Million

Content

- ICT 14 – 2017: Big Data PPP: cross-sectorial and cross-lingual data integration and experimentation
- ICT 15 – 2017: Big Data PPP: Large Scale Pilot actions in sectors best benefitting from data-driven innovation
- ICT 16 – 2017: Big data PPP: research addressing main technology challenges of the data economy
- ICT 17 – 2017: Big data PPP: Support, industrial skills, benchmarking and evaluation
- ICT 20 – 2017: Tools for smart digital content in the creative industries
- ICT 23 – 2017: Interfaces for accessibility

Robotics and Autonomous Systems

- ICT 25 – 2017: Advanced robot capabilities research and take-up
- ICT 27 – 2017: System abilities, SME & benchmarking actions, safety certification
- ICT 28 – 2017: Robotics Competition, coordination and support

International Cooperation Activities

- ICT 39 – 2017: International partnership building in low and middle income countries

Support Actions

- ICT 40 – 2017: Reinforcing European presence in international ICT standardisation
- ICT 41 – 2017: Next Generation Internet

Leadership in Enabling and Industrial Technologies - Space

- Opening date: 8 November 2016
- Deadline: 1 March 2017
- Three main calls
 - Galileo
 - Earth Observation
 - Competitiveness of the European Space Sector: Technology and Science

Call “Applications in Satellite Navigation – Galileo”

- Budget: € 33 million
- The call has four topics:
 - GALILEO 1 – 2017: EGNSS Transport applications
 - GALILEO 2 – 2017: EGNSS mass market applications
 - GALILEO 3 – 2017: EGNSS professional applications
 - GALILEO 4 – 2017: EGNSS awareness raising and capacity building

Call “Earth Observation”

- Budget: € 22 million
- The call has three topics:
 - EO 1 – 2017: Downstream applications
 - EO 2 – 2017: EO Big Data Shift
 - EO 3 – 2017: Preparation for a European capacity to monitor CO₂ anthropogenic emissions

Call “Competitiveness of European Space Sector: Technology and Science”

- Budget: € 43.5 million
- The call has seven topics:
 - COMPET 1 – 2017: Technologies for European non-dependence and competitiveness
 - COMPET 2 – 2017: Competitiveness in Earth observation mission technologies
 - COMPET 3 – 2017: High speed data chain
 - COMPET 4 – 2017: Scientific data exploitation
 - COMPET 5 – 2017: Space Weather
 - COMPET 6 – 2017: Space portal
 - COMPET 7 – 2017: Technology transfer and business generators

Pillar 3: Societal challenges

SC2 - Food Security, Sustainable Agriculture and Forestry, Marine and Maritime and Inland Water Research and the Bioeconomy

SC2

- Deadline for all calls:
 - 14 February 2017 (one stage)
 - 13 September 2017 (two stage)
- Three relevant calls:
 - **Sustainable Food Security** – Resilient and resource-efficient value chains
 - **Blue Growth** – Demonstrating an ocean of opportunities
 - **Bio-based innovation for sustainable goods and services** – Supporting the development of a European Bioeconomy

SC2 – Sustainable Food Security

- Budget: € 263.57 million
- This call has three relevant lines of activities:
 - More resilient and resource efficient value chains
 - Environment-smart and climate-smart primary production
 - Support to the Implementation of the EU-Africa Partnership on Food and Nutrition Security and Sustainable Agriculture

SC2 – Blue Growth

- Budget: € 30.40 million
- This call has four lines of activities:
 - Boosting Innovation for emerging Blue Growth activities
 - Linking healthy oceans and seas with healthy people
 - The Arctic Dimension
 - Valorising the Mediterranean Sea Basin

SC2 - Bio-based innovation for sustainable goods and services

- Budget: € 26.47 million
- This call has two lines of activities:
 - Securing sustainable biomass supply for bio-based goods and services
 - Building the “bio-based markets of the future” – mobilizing stakeholders engagement

SC5 - Climate action, environment, resource efficiency and raw materials

SC5

- Deadline for all calls:
 - 7 March 2017 (one stage)
 - 5 September 2017 (two stage)
- Budget for all SC5 calls in 2017: € 223.60 million
- Four relevant parts of the call:
 - Climate services
 - Towards a low-carbon Europe
 - Nature-based solutions for territorial resilience
 - Earth observation

SC5 – Climate services

- This part of the call has the following topics:
 - SC5-01-2016-2017: Exploiting the added value of climate services
 - SC5-02-2017: Integrated European regional modelling and climate prediction system
 - SC5-04-2017: Towards a robust and comprehensive greenhouse gas verification system
 - SC5-30-2017: ERA-NET on Climate Services Roadmap: Cross-sector impact assessments (evaluation, comparison and integration)
 - SC5-31-2017: Widening international cooperation activities on climate adaptation and mitigation

SC5 – Towards a low-carbon Europe

- This part of the call has two topics:
 - SC5-06-2016-2017: Pathways towards the decarbonisation and resilience of the European economy in the timeframe 2030-2050 and beyond
 - SC5-07-2017: Coordinating and supporting research and innovation actions on the decarbonisation of the EU economy

SC5 – Nature-based solutions for territorial resilience

- This part of the call has one topic:
 - SC5-08-2017: Large-scale demonstrators on nature-based solutions for hydro-meteorological risk reduction

SC5 – Earth observation

- This part of the call has two topics:
 - SC5-18-2017: Novel in-situ observation systems
 - SC5-19-2017: Coordination of citizens' observatories initiatives

SC6 - Europe in a changing world – inclusive, innovative and reflective Societies (IIRS)

Europe in a changing world – IIRS

Opening 4 October 2016; deadline 2 February 2017

4 topics:

- Call - CO-CREATION FOR GROWTH AND INCLUSION
- Call - REVERSING INEQUALITIES AND PROMOTING FAIRNESS
- Call - ENGAGING TOGETHER GLOBALLY
- Call - UNDERSTANDING EUROPE - PROMOTING THE EUROPEAN PUBLIC AND CULTURAL SPACE

Call - CO-CREATION FOR GROWTH AND INCLUSION

CO-CREATION-01-2017: **Education and skills**: empowering Europe's young innovators

CO-CREATION-04-2017: Applied co-creation to deliver public services

CO-CREATION-06-2017: Policy-development in the age of big data: **data-driven policy-making**, policy-modelling and policy-implementation

CO-CREATION-07-2017: Towards a new growth strategy in Europe - Improved economic and social measurement, **data and official statistics**

CO-CREATION-08-2017: Better integration of evidence on the impact of research and innovation in policy making

Call - UNDERSTANDING EUROPE - PROMOTING THE EUROPEAN PUBLIC AND CULTURAL SPACE

- CULT-COOP-07-2017: **Cultural heritage** of European coastal and maritime regions
- CULT-COOP-09-2017: European **cultural heritage**, access and analysis for a richer interpretation of the past
- CULT-COOP-10-2017: Culture, integration and European public space
- CULT-COOP-11-2017: Understanding the transformation of European public administrations

SC7 - Secure Societies

Opening 1 March 2017; deadline 24 August 2017

3 topics:

- SECURITY: disaster-resilience; fight against crime and terrorism; border security and external security
- CRITICAL INFRASTRUCTURE PROTECTION : prevention, detection, response and mitigation of the combination of physical and cyber treats to the critical infrastructure of Europe
- DIGITAL SECURITY FOCUS AREA

DIGITAL SECURITY FOCUS AREA

- DS-06-2017: Cybersecurity PPP: Cryptography
- DS-07-2017: Cybersecurity PPP: Addressing Advanced Cyber Security Threats and Threat Actors Forthcoming
- DS-08-2017: Cybersecurity PPP: Privacy, Data Protection, Digital Identities Forthcoming

Horizontal pillar – Science with and for Society

Science with and for Society

Opening 12 April 2017; deadline 30 August 2017

4 topics:

- Institutional Change to Support Responsible Research and Innovation in Research Performing and Funding Organisations
- Embedding Responsible Research and Innovation in Horizon 2020 Research & Innovation
- Strengthening the Science with and for Society Knowledge-Base
- Developing Inclusive, Anticipatory Governance for Research & Innovation

Institutional Change to Support RRI in Research Performing and Funding Organisations

- SwafS-03-2016-2017: Support to research organisations to implement **gender** equality plans
- SwafS-05-2017: **New constellations** of Changing Institutions and Actors
- SwafS-06-2017: **Engaging industry** – Champions for RRI in Industrial Sectors
- SwafS-08-2017: European Community of Practice to support **institutional change**

Embedding Responsible Research and Innovation in Horizon 2020 Research & Innovation

- SwafS-10-2017: Putting **Open Science** into action

Strengthening the Science with & for Society Knowledge-Base

- SwafS-11-2017: **Science education outside the classroom**
- SwafS-12-2017: Webs of Innovation Value Chains and Openings for RRI
- SwafS-13-2017: Integrating Society in Science and Innovation
- SwafS-14-2017: A Linked-up Global World of RRI

Developing Inclusive, Anticipatory Governance for Research & Innovation

- SwafS-21-2017: Promoting **integrity in the use of research results** in evidence based policy
- SwafS-22-2017: The ethical dimensions of IT technologies
- SwafS-23-2017: RRI in support of sustainability and governance, taking account of the international context
- SwafS-24-2017: EURAXESS Service network
- SwafS-26-2017: Science4Refugees
- SwafS-27-2017: Implementing a European Train-the-trainers initiative with regard to **Ethics and Research Integrity**

Joint Research Centre

- Scientific and technical arm of the European Commission.
- Provides scientific advice and technical know-how to support a wide range of EU policies.
- Collaboration with MS/AC through:
 - EU projects
 - Partnership agreement: joint research, info sharing
 - Scientific networks: validation, standardisation, technical support

Joint Research Centre

- ~ 3000 staffs
- The Institute for Reference Materials and Measurements (IRMM), Geel, Belgium
- The Institute for Transuranium Elements (ITU), Karlsruhe, Germany
- The Institute for Energy and Transport (IET), Petten, Netherlands
- The Institute for the Protection and Security of the Citizen (IPSC), Ispra, Italy
- The Institute for Environment and Sustainability (IES), Ispra, Italy
- The Institute for Health and Consumer Protection (IHCP), Ispra, Italy
- The Institute for Prospective Technological Studies (IPTS), Seville, Spain

4. More information

- Website: <http://eurofed.stis.belspo.be/>
- Subscription newsletter:
<http://eurofed.stis.belspo.be/eurofed.asp?id=s02&pg=subscribe&srv=1&lang=en>
- Twitter: @Eurofed_H2020
- The [Participant Portal](#) of the European Commission

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5. Q&A