

Horizon 2020 infoday

Belgian Institute for Space Aeronomy

10 June 2014

Pascale Van Dinter

Laurent Ghys

Kristof Vlaeminck

Agenda

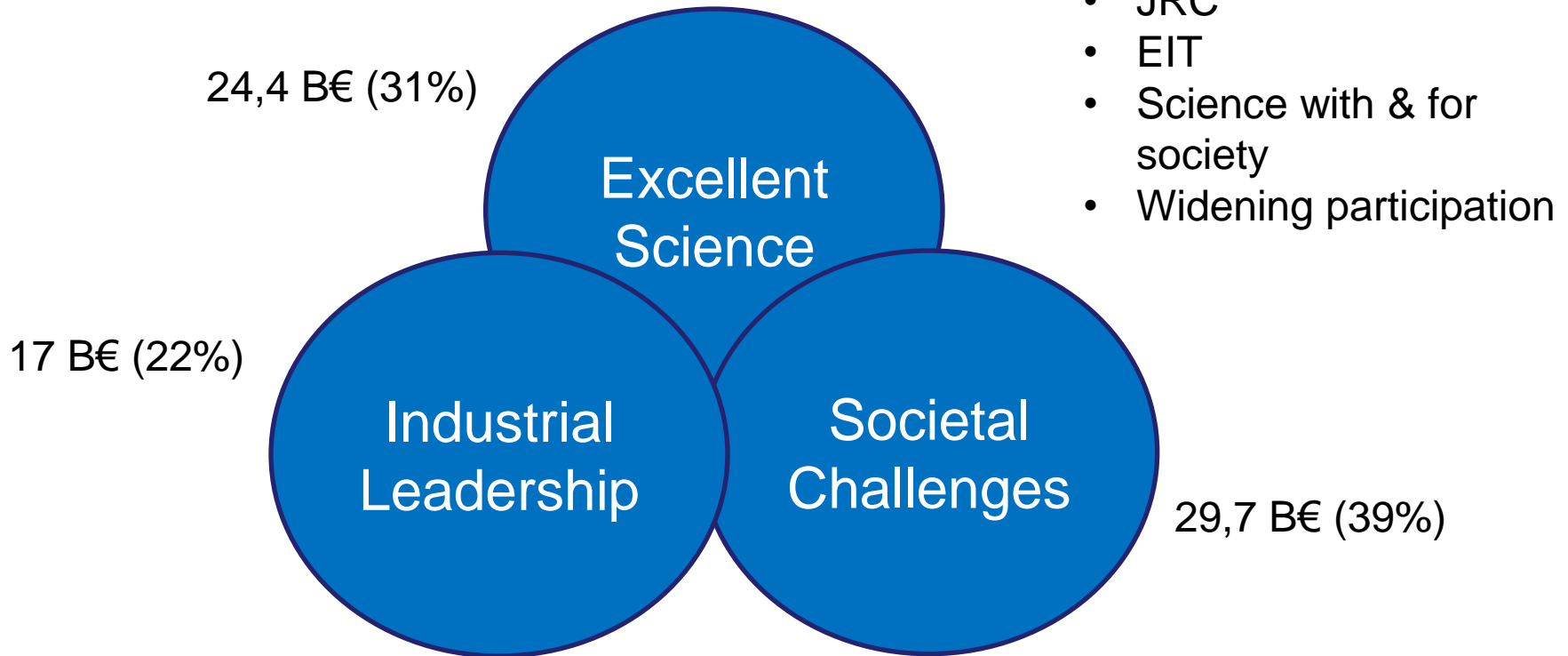
1. Horizon 2020
2. Key changes in legal and financial requirements
3. Eurofed team
4. Work Programmes 2014 – 2015
5. Questions ?

1. Horizon 2020

What is Horizon 2020?

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

3 pillars



Horizon 2020

| Excellent Science | Competitive Industries | Societal Challenges |
|---|--|--|
| European Research Council* | Leadership in enabling and industrial technologies: | Health, demographic change and wellbeing* |
| Future and emerging technologies | <ul style="list-style-type: none">• dedicated support for ICT *• nanotechnologies• advanced materials• biotechnology• advanced manufacturing and processing• space* | Food security, sustainable agriculture, marine and maritime research and the bio-economy* |
| Marie Skłodowska Curie actions* | Access to risk finance | Secure, clean and efficient energy |
| European Research infrastructures (incl. e-infrastructures)* | Innovation in SMEs | Smart, green and integrated transport |
| | | Climate action, resource efficiency and raw materials* |
| | | Inclusive, innovative and secure societies* |
| | | Secure Societies* |

European Institute of Innovation and Technology (EIT)
Joint Research Centre (JRC)*
Spreading Excellence and Widening Participation
Science with and for Society*

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

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

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

2. Key changes in legal and financial requirements

Significant innovations in H2020



- **EU Financial Regulation and Rules for participation are valid for all H2020 components** (e.g. EIT, JTI, Article 185...); exceptions are possible where necessary.
- **Standard funding rates** for all project participants and activities
- (one funding rate/project)
- **25% flat rate for indirect costs**
- **Electronic signatures**

| Maximum reimbursement rates | Research and technological development activities (*) | Demonstration activities | Other activities |
|---------------------------------|---|--------------------------|------------------|
| Network of excellence | 50% 75% (**) | | 100% |
| Collaborative project(****) | 50% 75% (**) | 50% | 100% |
| Coordination and support action | | | 100% (***) |

Funding Instruments

| Funding actions | Funding rates |
|---|-------------------------------|
| Research and Innovation action | 100 % |
| Innovation action (close to market) <i>funds new, modified or improved products, processes or services</i> <i>- creating prototypes, tests, demonstrations, pilot projects, large-scale product validation and developing marketability</i> | 70 % 100 % for NPOs |
| Co-ordination and support action | 100 % |
| European Research Council (ERC) | 100 % |
| Marie Skłodowska-Curie action | 100 % (except Co-fund) |
| SME Instrument | 70 % |

New!

New!

Funding partners from third countries

- **Differentiation according to country groupings**
- Funding, if specified in the **Work Programme**
- **„Industrialised States“, BRIC and Mexico**
=> no automatic funding, except in the case of:
 - ✓ Funding as specified in the Work Programme or
 - ✓ Participation is essential for the realisation of the project or
 - ✓ Existing bilateral agreement



Time-to-grant: „5+3“

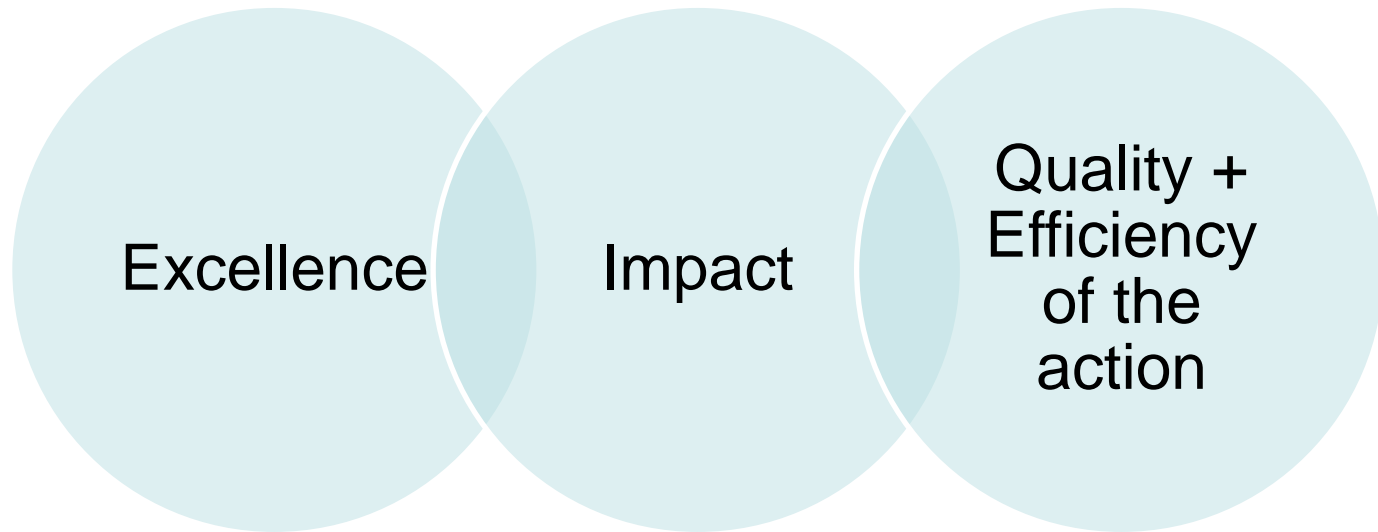
- Information on the **evaluation results** max. **5 months** from Call-Deadline (two-stage Calls: 2nd Call deadline)
- Thereafter max. **3 months to conclusion of contract**



- Longer period of time-to-grant possible:
ERC projects / justified exceptional cases (complex projects) /
request of consortium

To speed up: each proposal will be evaluated „as it is“, not as „what it could be“; no more paper

Evaluation of proposal – standard award criteria



- ✓ ERC frontier research actions = „only excellence“
- ✓ Innovation actions = higher weighting for „impact“

Time-keeping records

For employees who spend **100 %** of their working time on the project, written confirmation is sufficient to confirm that they have worked exclusively on the project.

Other direct costs

Purchase of goods, works und services:

- Best price-performance ratio or lowest price
- Public procurement law, if applicable

The **Value-Added-Tax (VAT)** is **eligible** provided that it will not be deductible.

Open Access

Scientific (peer-reviewed) publications:

- **Open Access as a basic principle** („green“ or „gold“)
- **No “obligation to publish“!**
- beneficiary must aim to deposit research data needed to validate the results
- OA costs are eligible for the duration of the project.

Research data:

- **Pilot “open Research Data Pilot“**

3. EUROFED team

Who are we ?

- National Contact Points for Horizon 2020 of the Belgian federal government
- Eurofed is a part of the Scientific and Technical Information Service (DWTI-SIST)
- 3 team members

What is our aim ?

- Inform the federal actors about Horizon 2020
- Support federal actors in submitting proposals and managing projects
- We give advice about the challenges that could be of interest to you

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 a mail or give us a call.

How can we help you ?

- Infosessions:
 - Tailor-made infosessions like this one
 - Challenge specific infodays together with our colleagues
 - On demand in your federal institution
 - Face-to-face meetings
- Feedback on your proposal

4. Work Programmes 2014 – 2015

4.1. 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 2 M€
for 5 years
Deadline: Feb 2015
Budget: 410 M€

Consolidator Grants
7-12 years after PhD
Up to 2,75 M€
for 5 years
Deadline: March
2015
Budget: 605 M€

Advanced Grants
>12 years after PhD
Up to 3,5 M€
for 5 years
Deadline: 21/10/14
Budget: 450 M€

Proof of Concepts
Up to 150.000€ for ERC grantees
Deadline: 1/10/14
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: 13/01/15; 370 M€

Research and Innovation Staff Exchange (RISE)

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

Deadline: 28/04/15; 80 M€

- Individual Fellowships (IF) – Only ER

Deadline: 10/09/15; 213 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**

350 M€
8 scientific panels

**European
Industrial
Doctorates**

30 M€
Separate evaluation panel

**European
Joint
Doctorates**

25.5 M€
Separate evaluation panel

European Training Networks

- Min 3 MS/AC
- No mandatory PhD programme
- Typical: 6-10 participants
- Beneficiary : mandatory recruitment and hosting of ESR
- 540 researchers months
- Secondment: 30%

European Industrial Doctorates

- Min 2 MS/AC
- PhD enrolment at univ + $\geq 50\%$ at non-academic partner
- Joint selection, training and supervision
- Mandatory consortium agreement
- 180/540 researchers months (2/3 MS)
- Each researchers is recruited

European Joint Doctorates

- International, intersectoral, interdisciplinary joint doctoral training
- Min 3 MS/AC entitled to deliver PhD
- Joint degree
- Non-academic sector essential
- Mandatory consortium agreement
- Max 540 researchers months
- Each researchers is recruited. Secondment up to 30%

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 months 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)
- 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
- Cross-cutting services for cluster of ESFRI projects

European Research Infrastructures

2. Integrating & opening RIs of pan-EU interest

- Top-down approach (list of 41 topics)
- 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

- Managing, computing and preserving big data
- Open access
- Global data infrastructures
- E-infra for virtual research environment (VRE)

European Research Infrastructures

4. Support to Innovation, Human resources, Policy and International cooperation

- Innovation support measures (portal for calls, tenders,..)
- Procurement in the field of scientific instrumentation
- Human capital of RI (training of staff, ...)

4.2. Industrial Leadership

4.2.1. Leadership in enabling and industrial technologies - ICT

Information and Communication Technologies

- A new generation of components and systems
Deadline: 23 April 2014
- Advanced Computing
ICT 4 – 2015: Customised and low power computing

Information and Communication Technologies

Future Internet

- ICT 8 – 2015: Boosting public sector productivity and innovation through cloud computing services
- ICT 10 – 2015: Collective Awareness Platforms for Sustainability and Social Innovation
- ICT 12 – 2015: Integrating experiments and facilities in FIRE+

Information and Communication Technologies

Content technologies and information management

- ICT 16 – 2015: Big data - research
- ICT 19 – 2015: Technologies for creative industries, social media and convergence
- ICT 20 – 2015: Technologies for better human learning and teaching

Robotics

- ICT 24 – 2015: Robotics

Micro- and nano-electronic technologies, Photonics

- ICT 25 – 2015: Generic micro- and nano-electronic technologies
- ICT 27 – 2015: Photonics KET
- ICT 28 – 2015: Cross-cutting ICT KETs

ICT Cross-Cutting Activities

- ICT 30 – 2015: Internet of Things and Platforms for Connected Smart

Information and Communication Technologies

Horizontal ICT Innovation actions

- ICT 34 – 2015: ICT contribution to pilot for co-investments by business angels in innovative ICT firms
- ICT 36 – 2015: Pre-commercial procurement open to all areas of public interest requiring new ICT solutions
- ICT 37 – 2015: Open Disruptive Innovation Scheme

Information and Communication Technologies

- H2020-ICT-2015: 15 October 2014
- Deadline: 21 April 2015
- Indicative budget for this call: 583 Million Euro

4.2.2. Leadership in enabling and industrial technologies - Space

Space

- Deadline (Earth Observation call):
28 November 2014
- Budget: € 26 million
- The challenge has three topics:
 - Bringing EO applications to the market
 - Stimulating wider research use of Copernicus Sentinel Data
 - Technology developments for competitive imaging from space

Space

- Deadline (Protection of European Assets in and from Space call):
28 November 2014
- Budget: € 6,5 million
- The challenge has one topic:
 - Passive means to reduce the impact of Space Debris

Space

- Deadline (Competitiveness of the European Space Sector: Technology and Science call):
28 November 2014
- Budget: € 36,5 million
- The challenge has three activities:
 - Competitiveness of European Space Technology
 - Space exploration and science
 - International Cooperation in Space matters

Space

- Deadline (Applications in Satellite Navigation – Galileo call):
 - 4 February 2015
- Budget: € 25 million
- The challenge has three topics:
 - EGNSS applications
 - Small and Medium Enterprise (SME) based EGNSS applications
 - Releasing the potential of EGNSS applications through international cooperation

4.3. Societal challenges

4.3.1. Societal challenge: Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy – SC2

SC2

- Deadline for all calls:
 - 11 June 2015 (one stage)
 - 24 February 2015 (two stage)
- Two relevant calls:
 - The Blue Growth call
 - The Innovative, Sustainable and Inclusive Bioeconomy call

SC2

- Budget: € 45 million
- The Blue Growth call has three lines of activities:
 - Sustainably exploiting the diversity of marine life
 - Ocean observation technologies/systems
 - Horizontal aspects, socio-economic sciences, innovation, engagement with society and ocean governance across the blue growth focus area

SC2

- Budget: € 42 million
- The Innovative, Sustainable and Inclusive Bioeconomy call has three lines of activities:
 - Sustainable Agriculture and Forestry
 - Sustainable and competitive bio-based industries
 - Cross-cutting actions covering all activities

4.3.2. Societal challenge: Climate action, environment, resource efficiency and raw materials – SC5

SC5

- Deadline for all calls:
 - 10 March 2015 (one stage)
 - 16 October 2014 (two stage)
- Three relevant calls:
 - Waste: A Resource to Recycle, Reuse and Recover Raw Materials
 - Water Innovation: Boosting its value for Europe
 - Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials

SC5 - Waste

- Budget: € 45 million
- The Waste call has three topics:
 - Towards near-zero waste at European and global level
 - Promoting eco-innovative waste management and prevention as part of sustainable urban development
 - Ensuring sustainable use of agricultural waste, co-products and by-products

SC5 – Water Innovation

- Budget: € 96 million
- The Water Innovation call has five topics:
 - Bridging the gap: from innovative water solutions to market replication
 - Integrated approaches to water and climate change
 - Stepping up EU research and innovation cooperation in the water area
 - Harnessing EU water research and innovation results for industry, agriculture, policy makers and citizens
 - Strengthening international R&I cooperation in the field of water

SC5 – Growing...

- Budget: € 189 million
- The Growing... call has five activities:
 - Fighting and Adapting to Climate Change
 - Protecting the Environment, Sustainably Managing Natural Resources, Water, Biodiversity and Ecosystems
 - Ensuring the Sustainable Supply of Non-energy and Non-Agricultural Raw Materials
 - Developing Comprehensive and Sustained Global Environmental Observation and Information Systems

4.3.3. Societal challenge: Europe in a changing world – inclusive, innovative and reflective Societies – SC6

Europe in a changing world – IIRS

Call - Overcoming the Crisis: New Ideas, Strategies and Governance Structures for Europe (EURO)

EURO-5-2015: ERA-NET on Smart Urban Futures

Deadline: 7 January 2015

Budget: 5 million Euro

EURO-6-2015: Meeting new societal needs by using emerging technologies in the public sector

Deadline: 21 April 2015

Budget: 12 million Euro

Europe in a changing world – IIRS

Call - the Young Generation in an Innovative, Inclusive and Sustainable Europe (YOUNG)

YOUNG-3-2015: Lifelong learning for young adults: better policies for growth and inclusion in Europe

YOUNG-4-2015: The young as a driver of social change

Deadline: 7 January 2015

Budget: 10,2 million Euro

Europe in a changing world – IIRS

Call - Europe as a Global Actor (INT)

INT-1-2015: Enhancing and focusing research and innovation cooperation with the Union's key international partner countries

INT-2-2015: Encouraging the research and innovation cooperation between the Union and selected regional partners

INT-3-2015: Europe's contribution to a value-based global order and its contestants

Europe in a changing world – IIRS

INT-4-2015: The European Union's contribution to global development: in search of greater policy coherence

INT-5-2015: Rethinking the European Union crisis response mechanism in light of recent conflicts

INT-6-2015: Re-invigorating the partnership between the two shores of the Mediterranean

INT-7-2015: Towards a new geopolitical order in the South and East Mediterranean region

Europe in a changing world – IIRS

INT-8-2015: The European Union and the Eastern Partnership

INT-9-2015: The European Union, Turkey and its wider neighbourhood: challenges and opportunities

INT-11-2015: Exploiting the potential of culture and science in the EU's external relations

INT-12-2015: The cultural, scientific and social dimension of EU-LAC relations

Europe in a changing world – IIRS

Call - Europe as a Global Actor (INT)

Deadline: 20 January 2015

Budget: 10,35 million Euro

Europe in a changing world – IIRS

Call - New Forms of Innovation (INSO)

INSO-1-2015: ICT-enabled open government

INSO-4-015: Innovative schemes for open innovation and science 2.0

INSO-5-2015: Social innovation Community

INSO-9-2015: Innovative mobile e-government applications by SMEs

INSO-10-2015: SME business model innovation

Deadline: 31 March 2015

Budget: 13,67 million Euro

4.3.4. Societal challenge: Secure Societies – SC7

Secure Societies

- Deadline for all calls:
28 August 2014
21 April 2015 (DS) - 27 August 2015 (DR)
- Two relevant calls:
 - Call for Disaster-resilience: safeguarding and securing society, including adapting to climate change
 - Call for Digital Security: Cybersecurity, Privacy and Trust

Secure Societies – Disaster Resilience

- Budget: € 80 million (2014) - € 100 million (2015)
- The Disaster Resilience call has five activities:
 - Crisis management
 - Disaster Resilience & Climate Change
 - Critical Infrastructure Protection
 - Communication technologies and interoperability
 - Ethical/Societal Dimension

Secure Societies – Digital Security

- Budget: € 47 million (2014) - € 50 million (2015)
- The Digital Security call has five topics:
 - Privacy
 - Access Control
 - Risk management and assurance models
 - The role of ICT in Critical Infrastructure Protection
 - Secure Information Sharing
 - Trust eServices

4.5. Horizontal aspects – Science with and for Society

Science with and for Society

Call for making science education and careers attractive for young people (SEAC)

SEAC.1.2014.2015 - Innovative ways to make science education and scientific careers attractive to young people

SEAC.2.2014 - Responsible Research and Innovation in Higher Education Curricula

SEAC.3.2014 – Trans-national operation of the EURAXESS Service network

SEAC.4.2015 - EURAXESS outreach activities

Science with and for Society

Call for promoting gender equality in research and innovation (GERI)

GERI.1.2014- Innovative approach to communication encouraging girls to study science

GERI.2.2015 - Impact of gender diversity on Research & Innovation

GERI.3.2014 - Evaluation of initiatives to promote gender equality in research policy and research organisations

GERI.4.2014-2015 - Support to research organisations to implement gender equality plans

Science with and for Society

Call for integrating society in science and innovation

ISSI.1.2014.2015 - Pan-European public outreach: exhibitions and science cafés engaging citizens in science

ISSI.2.2014 - Citizens and multi-actor engagement for scenario building

ISSI.3.2015 – Knowledge Sharing Platform

ISSI.4.2015 - On-line mechanisms for knowledge-based policy advice

ISSI.5.2014.2015 - Supporting structural change in research organisations to promote Responsible Research and Innovation

Science with and for Society

Call for developing governance for the advancement of responsible research and innovation (GARRI)

GARRI.1.2014 - Fostering RRI uptake in current research and innovations systems

GARRI.2.2015 - Responsible Research and Innovation in industrial context

GARRI.3.2014 - Scientific Information in the Digital Age: Text and Data Mining (TDM)

GARRI.4.2015 - Innovative approach to release and disseminate research results and measure their impact

Science with and for Society

Call for developing governance for the advancement of responsible research and innovation

GARRI.5.2014 - Ethics in Research: Promoting Integrity

GARRI.6.2014 - Reducing the risk of exporting non ethical practices to third countries

GARRI.7.2014 - Science with and for Society National Contact Points (NCPs) in Horizon 2020

Deadline: 2 October 2014 / 16 September 2015

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

5. 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

- europed@stis.belspo.be
- Pascale Van Dinter
pascale.vandinter@stis.belspo.be
- Laurent Ghys
laurent.ghys@stis.belspo.be
- Kristof Vlaeminck
Kristof.vlaeminck@stis.belspo.be