

## EU H2020 opportunities with specific focus on water research

Belgian Committee of the International Water  
Association (B-IWA) – 16 November 2015

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## Agenda

1. Eurofed team
2. Our Belgian colleagues
3. Horizon 2020
4. Work Programmes 2016 – 2017
5. More information and questions ?

## 1. Eurofed team

## Who are we ?

- National Contact Points for Horizon 2020 of the Belgian federal government
- Eurofed is a service of the Scientific and Technical Information Service (DWTI-SIST)/Belgian Science Policy Office (BELSPO)
- 3 team members

## What is our aim ?

- Inform the federal actors about Horizon 2020:
  - telephone; email; face-to-face meetings
  - info sessions
    - with EC
    - with NCP colleagues in Belgium
- 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
  - Drafts workprogrammes
- Answer to your questions: don't hesitate to send us a mail or give us a call.

## 2. Our Belgian colleagues

## Flanders

The NCPs in Flanders are hosted by IWT (Agency for Innovation by Science and Technology) and by FWO (Research Foundation – Flanders). Their target group are all the organisations located in the region of Flanders or inside the competence of the Flemish Community (e.g. universities, high schools).

NCP coordinator IWT: [Alain DELEENER](#)

Website: [europrogs](#)



## Brussels

NCP Brussels is hosted by impulse.brussels (the Brussels Enterprise Agency). Their target group is all organisations located in the Brussels-Capital Region, focus on SMEs, industrial leadership and societal challenges.

NCP coordinator: [Tania VAN LOON](#)

Website: [NCP Brussels](#)

## Walloon Region

NCP-Wallonie is hosted by UWE (Union Wallonne des Entreprises). Their target group is all organisations located in the Walloon region interested in Industrial leadership & Societal challenges.

NCP coordinator: [Bertrand HERRY](#)

Website: [NCP-Wallonie](#)

## French Speaking Community

The NCP-FNRS is hosted by the Fund for Scientific Research-FNRS (F.R.S.-FNRS). Their target is all higher education organisations (e.g. universities, high schools) located in the Brussels-Wallonia Federation.

NCP coordinator: [Monique SEPTON](#)

Website: [NCP-FNRS](#)

## Federal Government

The federal NCPs, EUROFED, are hosted by the Belgian Science Policy Office (Belspo).  
Their target group is the federal research institutes and other federal actors.

NCP coordinator: [Pascale VAN DINTER](#)

Website: [EUROFED](#)

## 3. Horizon 2020

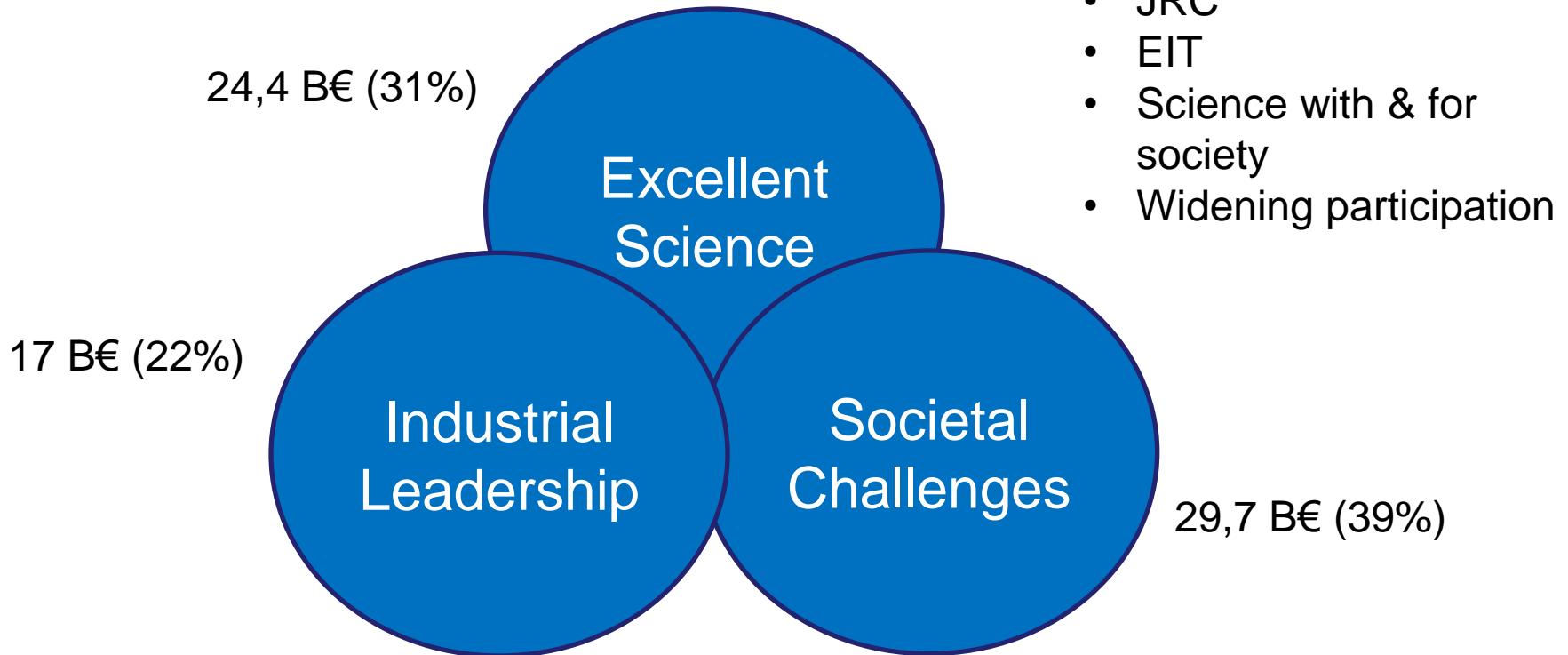
## What is Horizon 2020?

- 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

## Main changes

- Single programme, combining all R&I instruments (FP7, CIP and EIT)
- Single set of rules
- 1 project = 1 funding rate
- Shorter time-to-grant (8 months)
- No negotiation (project as it is)
- 2 year work programme
- Less prescriptive calls, focusing on challenges

### 3 pillars





## 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

### Funding rate

- For **“Research and Innovation actions“**: **100 %**  
**Indirect costs: 25 % of the direct, eligible costs**  
(except subcontracting + third parties in-kind contribution not used on the beneficiaries premises)

### Funded to 100%

Direct Costs	Indirect Costs	Total	Funding rate	Funding
100 €	25 €	125 €	100 %	125 €

Direct  
Costs

Indirect  
Costs

### Funding rate

- For „Innovation actions“: **70 %**  
„non-profit“ org.: **100 %**
- **Indirect Costs: 25 % of the direct eligible costs**  
(except subcontracting + third parties in-kind contribution  
not used on the beneficiaries premises)

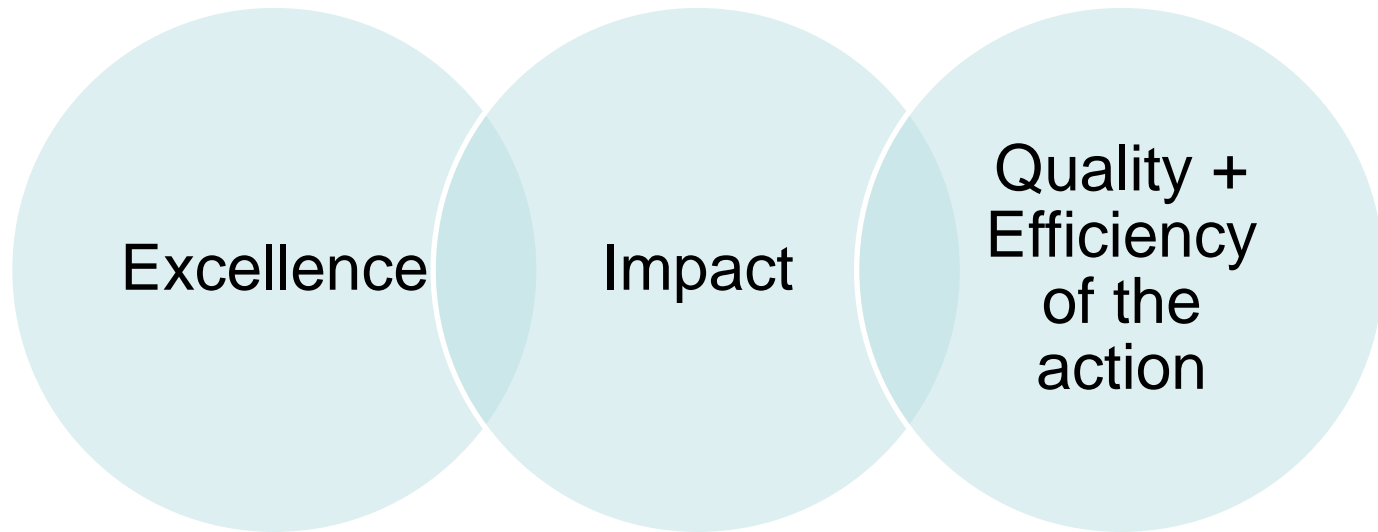
**Generally funded to 70 %**

**Direct  
Costs**

**Indirect  
Costs**

Type of organisation	Direct costs	Indirect costs	Total	Funding rate	Funding
General	100 €	25 €	125 €	70 %	87,5 €
Non profit org.	100 €	25 €	125 €	100 %	125 €

## Evaluation of proposal – standard award criteria



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

## Who can become evaluator ?

- Simple answer: almost everyone (except conflict of interest)
- Database of the European Commission  
<http://ec.europa.eu/research/participants/portal/desktop/en/experts/index.html>
- Added value for your organisation/company ?
  - Researchers learn from it
  - You stay in 'the loop'/networking

## 4. Work Programmes 2016 - 2017



## 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€

## Marie Skłodowska-Curie actions

- Innovative Training Networks (ITN)

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

Deadline: 12/01/16; 370 M€

- Research and Innovation Staff Exchange (RISE)

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

Deadline: 28/04/16; 80 M€

- Individual Fellowships (IF) – Only ER- Post-Doc

Deadline: 12/04/16; 218,5 M€

## 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*.

## 4.2 Industrial Leadership

## 4.2.1 Information and Communication Technologies

## ICT

- Four different calls (subthemes):
  - Information and Communication Technologies Call
  - EU-Japan Joint Call
  - EU-Brasil Joint Call
  - EU-South Korea Joint Call
- Deadlines for 2016 calls:
  - 19 January 2016
  - 12 April 2016



- A new generation of components and systems

ICT-03-2016: SSI - Smart System Integration

- Advanced Computing and cloud computing

ICT-06-2016: Cloud Computing

- Content technologies and information management

ICT-15-2016-2017: Big Data PPP: Large Scale Pilot actions in sectors best benefitting from data-driven innovation

- **ICT Key Enabling Technologies**

ICT-29-2016: Photonics KET 2016

- **EU-Brasil call**

EUB-02-2017: IoT Pilots

## 4.2.2 Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing

## Nano

- Two different calls (subthemes):
  - Call for Energy Efficient Buildings
  - Call for Nanotechnologies, Advanced Materials, Biotechnology and Production
  
- Deadlines for 2016 calls:
  - 8 December 2015
  - 21 January 2016

## NANOTECHNOLOGIES, ADVANCED MATERIALS, BIOTECHNOLOGY AND PRODUCTION

- NMBP 22-2017: Business models and industrial strategies supporting novel supply chains for innovative product-services
- NMBP 23-2016: Advancing the integration of Materials Modelling in Business Processes to enhance effective industrial decision making and increase competitiveness
- NMBP 26-2016: Analytical techniques and tools in support of nanomaterial risk assessment
- NMBP 29-2017: Advanced and realistic models and assays for nanomaterial hazard assessment

## 4.3 Societal Challenges

## 4.3.1 Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy (AGRO)

## AGRO

- Four different calls (subthemes):
  - Call for Sustainable Food Security
  - Call for Blue Growth: Demonstrating an ocean of opportunities
  - Call for Rural Renaissance - Fostering innovation and business opportunities
  - Call for Bio-based innovation for sustainable goods and services - Supporting the development of a European Bioeconomy
- Deadlines for 2016 calls:
  - 17 February 2016



## SUSTAINABLE FOOD SECURITY

- SFS-1-2016: Dealing with multiple and combined stresses: approaches to improve water and nutrient use efficiency in crop production
- SFS-03-2016: Testing and breeding for sustainability and resilience in crops
- SFS-05-2017: Robotics Advances for Precision Farming
- SFS-06-2016: Weeding - strategies, tools and technologies for sustainable weed management
- SFS-17-2017: Innovations in plant protection
- SFS-18-2016: Framework Partnership Agreement supporting Joint Actions towards Public-Public Partnerships in the Bioeconomy
- SFS-21-2016/2017: Advancing basic biological knowledge and improving management tools for commercially important fish and other seafood species

## SUSTAINABLE FOOD SECURITY

- SFS-26-2016: Legumes - transition paths to sustainable legume-based farming systems and agri-feed and food chains
- SFS-27-2017: Permanent grassland – farming systems and policies
- SFS-28-2017: Functional biodiversity – productivity gains through functional biodiversity: effective interplay of crop pollinators and pest predators
- SFS-30-2017: Closing loops at farm and regional levels to mitigate GHG emissions and environmental contamination - focus on carbon, nitrogen and phosphorus cycling in agro-ecosystems
- SFS – 32-2017: Promoting and supporting eco-intensification of aquaculture production systems: inland (including fresh water), coastal zone and offshore
- SFS-41-2016: EU-Africa Research and Innovation partnership on food and nutrition security and sustainable agriculture

## SUSTAINABLE FOOD SECURITY

- SFS – 47-2017: Management of soil water resources in the EU and China and its impact on agro-ecosystem functions
- SFS – 48-2017: Resource-efficient urban agriculture for multiple benefits – Contribution to the EU-China Urbanisation Partnership

## BLUE GROWTH

- BG-01-2016: Large-scale algae biomass integrated biorefineries
- BG-07-2017: Blue green innovation for clean coasts and seas
- BG-12-2016: Towards an integrated Mediterranean Sea Observing System

## RURAL RENESSAINCE

- RUR-01-2016: Consolidated policy framework and governance models for synergies in rural-urban linkages
- RUR-02-2017: Coastal-rural interactions: Enhancing synergies between land and sea based activities
- RUR-04-2016: Water farms – Improving farming and supply of drinking water
- RUR-06-2016: Crop diversification systems for the delivery of food, feed, industrial products and ecosystems services: from farm benefits to value-chain organisation
- RUR-07-2016: Resource-efficient and profitable industrial crops on marginal lands
- RUR-09-2017: Business models for modern rural economies
- RUR-10-2016-2017: Thematic Networks compiling knowledge ready for practice
- RUR-12-2017: Networking European farms to boost thematic knowledge exchanges and close the innovation gap

## 4.3.2 Secure, Clean and Efficient Energy

## Energy

- Two different calls (subthemes):
  - Call for Energy Efficiency
  - Call for Competitive Low-Carbon Energy

- Deadlines for 2016 calls:

EE	LCE
21 January 2016	16 February 2016
15 September 2016	5 April 2016

## ENERGY EFFICIENCY

- EE-01-2017: Waste heat recovery from urban facilities and re-use to increase energy efficiency of district or individual heating and cooling systems
- EE-03-2016: Standardised installation packages integrating renewable and energy efficiency solutions for heating, cooling and/or hot water preparation
- EE-04-2016-2017: New heating and cooling solutions using low grade sources of thermal energy
- EE-17-2016-2017: Valorisation of waste heat in industrial systems (SPIRE)



## COMPETITIVE LOW-CARBON ENERGY

- LCE-07-2016-2017: Developing the next generation technologies of renewable electricity and heating/cooling
- LCE-11-2017: Near-to-market solutions for reducing the water consumption of CSP Plants
- LCE-27-2017: Measuring, monitoring and controlling the risks of CCS, EGS and unconventional hydrocarbons in the subsurface

## 4.3.3 Smart, green and integrated transport

## Transport

- Three different calls (subthemes):
  - Call for Mobility for Growth
  - Call for Automated Road Transport
  - Call for Green Vehicles
- Deadlines for 2016 calls:
  - 20 January 2016
  - 26 January 2016

## MOBILITY FOR GROWTH

- MG-2.1-2017: Innovations for energy efficiency and emission control in waterborne transport
- MG-2.2-2016: Development, production and use of high performance and lightweight materials for vessels and equipment
- MG-2.3-2016: New and improved transport concepts in waterborne transport
- MG-2.4-2017: Complex and value-added specialised vessels

## 4.3.4 Climate action, environment, resource efficiency and raw materials (SC5)

## SC5

- Only one call (subtheme):
  - Call for Greening the Economy
- Deadlines for 2016 calls:
  - 26 January 2016
  - 8 March 2016

## GREENING THE ECONOMY

- SC5-01-2016-2017: Exploiting the added value of climate services
- SC5-02-2017: Integrated European regional modelling and climate prediction system
- SC5-03-2016: Climate services market research
- SC5-06-2016/2017: Pathways towards the decarbonisation and resilience of the European economy in the timeframe 2030-2050 and beyond
- SC5-08-2017: Large-scale demonstrators on nature-based solutions for hydro-meteorological risk reduction
- SC5-09-2016: Operationalising insurance value of ecosystems
- SC5-11-2016: Supporting international cooperation activities on water

## GREENING THE ECONOMY

- SC5-12-2016: Food systems and water resources for the development of inclusive, sustainable and healthy Euro-Mediterranean societies (PRIMA)
- SC5-13-2016-2017: New solutions for sustainable production of raw materials
- SC5-25-2016: Macro-economic & societal benefits from creating new markets in a circular economy
- SC5-27-2016: Preparing for pre-commercial procurement (PCP) and/or public procurement of innovative solutions (PPI) in support of climate action, environment, resource efficiency and raw materials



## 4.3.5 Secure Societies (SC7)

## SC7

- Three different calls (subthemes):
  - Call for Critical Infrastructure Protection
  - Call for Security
  - Call for Digital Security Focus Area
- Deadlines for 2016 calls:
  - 16 February 2016
  - 12 April 2016
  - 25 Augustus 2016

## CRITICAL INFRASTRUCTURE PROTECTION

- CIP1-2016-2017: Prevention, detection, response, mitigation of the combination of physical and cyber threats to the critical infrastructures of Europe

## SECURITY

- SEC-01-DRS-2016: Integrated tools for response planning and scenario building

## 4.3.6 Cross-cutting activities (Focus Areas)

## Cross-cutting activities

- Three different calls (subthemes):
  - Call for Industry 2020 in the Circular Economy
  - Call for Internet of Things
  - Call for Smart and Sustainable Cities
- Deadlines for 2016 calls:

8 December 2015	5 April 2016
21 January 2016	12 April 2016
8 March 2016	27 October 2016

## INDUSTRY 2020 IN THE CIRCULAR ECONOMY

- PILOTS-02-2016: Pilot Line Manufacturing of Nanostructured Antimicrobial Surfaces using Advanced Nanosurface Functionalization Technologies
- SPIRE-01-2016: Systematic approaches for resource-efficient water management systems in process industries
- SPIRE-02-2016: Plant-wide monitoring and control of data-intensive processes
- SPIRE-03-2016: Industrial technologies for the valorisation of European bio-resources into high added value process streams
- SPIRE-06-2016: Business models for flexible and delocalised approaches for intensified processing
- SPIRE-07-2017: Integrated approach to process optimisation for raw material resources efficiency, excluding recovery technologies of waste streams
- SPIRE-12-2017: Assessment of standardization needs and ways to overcome regulatory bottlenecks in the process industry

## INDUSTRY 2020 IN THE CIRCULAR ECONOMY

- CIRC-1-2016/2017: Systemic, eco-innovative approaches for circular economy: large-scale demonstration projects
- CIRC-02-2016/2017: Water in the context of the circular economy
- CIRC-05-2016 Unlocking the potential of urban organic waste

## INTERNET OF THINGS

- IoT-01-2016: Large Scale Pilots

## SMART AND SUSTAINABLE CITIES

- SCC-01-2016-2017: Smart Cities and Communities lighthouse projects
- SCC-02-2016/2017: Demonstrating innovative nature-based solutions in cities

## 5. More information and questions ?



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- **WssTP** (Water Supply and Sanitation Technology Platform) is the **European Technology Platform for Water**. Initiated by the European Commission in 2004 as an industry-lead stakeholder forum
- **Mission:**
  - ✓ Improve **coordination and** collaboration in the water and allied sectors;
  - ✓ Enhance **competitiveness** of the European water and allied sectors;
  - ✓ Contribute to solving **societal challenges** through RTD&I.
- **Key characteristics**
  - ✓ Membership covers full value chain of the water sector;
  - ✓ Focus on services to members
  - ✓ Focus on innovation and competitiveness of the sector

