



ENTERPRISE
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HORIZON 2020
SCIENCE | INDUSTRY | SOCIETY



Horizon 2020 Societal Challenge 5

Climate Action, Environment, Resource Efficiency and Raw Materials



**2016 Roadshows – Agri-Food & Biosciences
Institute (AFBI)**

Alice Wemaere (EPA) & Mark Sweeney (EI)

24th May 2016



Overview

1. Horizon 2020
2. Societal Challenge 5
3. Work Programme 2014 - 15 – Results
4. Work Programme 2017 – Overview
5. Lessons Learned
6. Support Available
7. Contact us





What is Horizon 2020?

- €70 billion EU research and innovation funding programme (2014-2020)
- A core part of Europe 2020, Innovation Union & European Research Area:
 - ✓ Responding to the economic crisis to invest in **future jobs and growth**
 - ✓ Addressing **people's concerns** about their livelihoods, safety and environment
 - ✓ **Strengthening the EU's** global position in research, innovation and technology

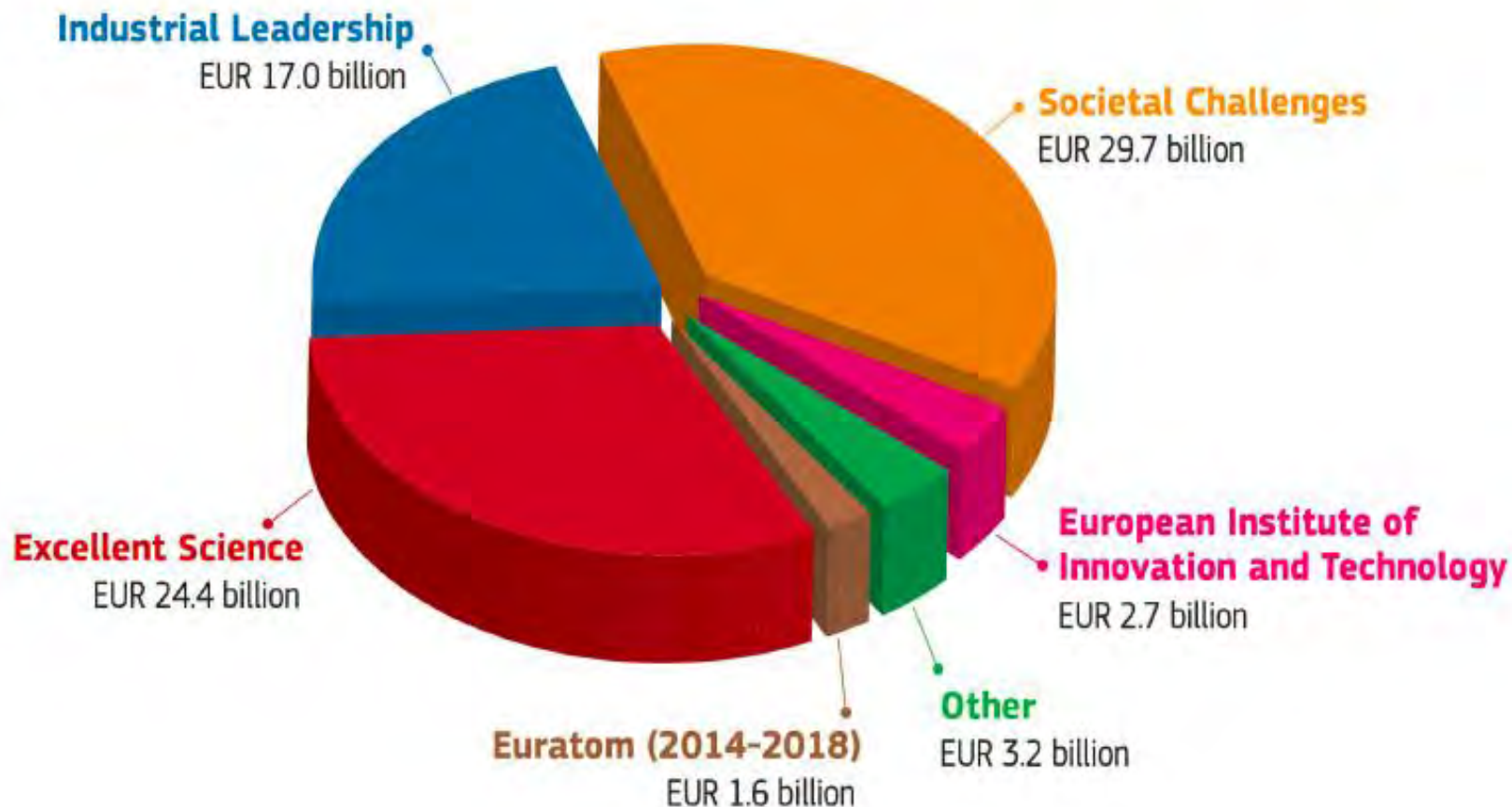


Three Priorities





Horizon 2020 Budget





Funding (€ million, 2014-2020)

Health, demographic change and wellbeing	7 472
Food security, sustainable agriculture, marine and maritime and inland water research & the Bioeconomy	3 851
Secure, clean and efficient energy *	5 931
Smart, green and integrated transport	6 339
Climate action, environment, resource efficiency and raw materials	3 081 (4%)
Europe in a changing world-inclusive, innovative and reflective societies	1 309
Secure societies-protecting freedom and security of Europe and its citizens	1 695
<i>Science with and for society</i>	<i>462</i>
<i>Spreading excellence and widening participation</i>	<i>816</i>

* Additional funding for nuclear safety and security from the Euratom Treaty activities (2014-2018)





Societal Challenge 5

Climate action, environment, resource efficiency and raw materials

Objective:

"to achieve a **resource– and water– efficient** and **climate change resilient economy** and society, the **protection and sustainable management** of natural resources and ecosystems, and a **sustainable supply and use of raw materials**, in order to meet the needs of a growing global population within the sustainable limits of the planet's natural resources and eco-systems."





Strategic Programming in H2020

- To increase impact of funding, and a more integrated approach by:
 - Bringing together activities from different challenges
 - Providing support across the innovation cycle
 - Use of funding schemes available
- Work programmes have a 2 year-duration





WP 2014/15 Structure

➤ Waste Call ← Focus Area



➤ Water Call ← Focus Area



➤ **Societal Challenge 5 Call:** Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials



↑
SC5 Themes





WP 2014/15 Results

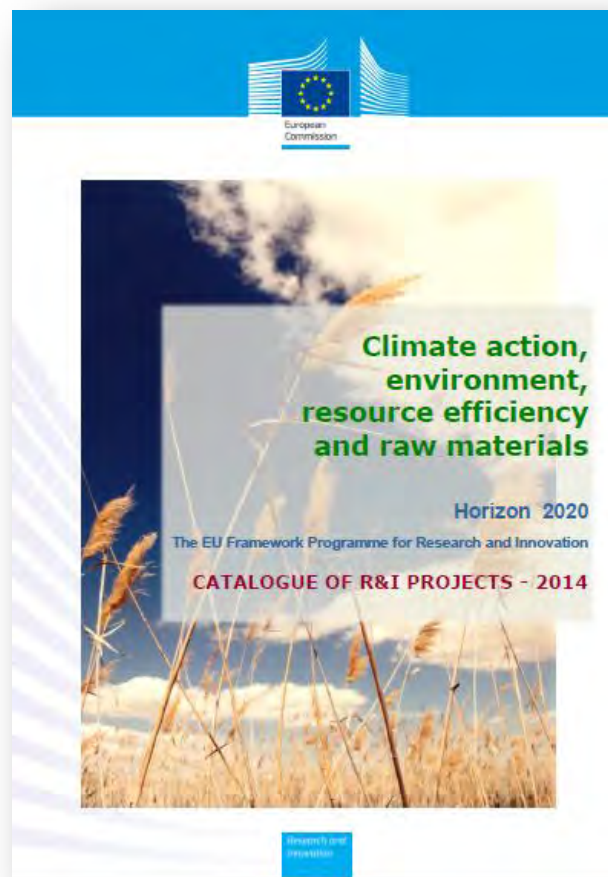
Catalogue of Projects
available from the EC

Stats on SC5 – Ireland
participation (Closed calls)

147 applicants => 28
successful (19% success rate)

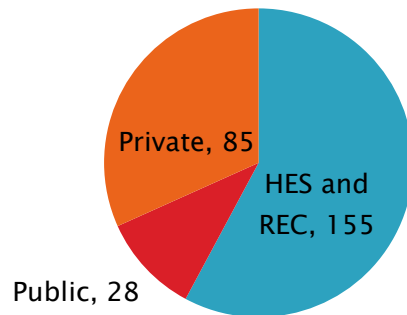
96 proposals => 20 successful
(20.8%)

Budget: 11.9%

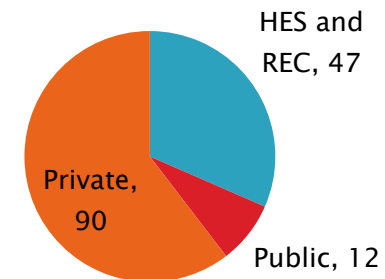


WP 2014/15

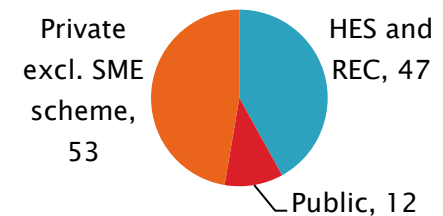
FP7 Applicants Profile – Theme 6 ALL Years (n=268)



H2020 SC5 Eligible Proposals



H2020 SC5 Eligible Proposals excl. SME inst.





Work Programme 2016-17

- AG Report (new Priority Areas) & Public Consultation (June 2014)
- Strategic Programming: Scoping Paper (Revised) – January 2015
- 1st “draft” WP2016/17 – February 2015
- Call for Ideas for Large-Scale Demonstration Projects (28/02/2015
- > 400 submissions)
- Expert Group Reports on the Priority Areas (01/04/2015)
- 2nd “draft” WP2016/17 – April 15, 3rd draft WP2016/17 – July 15

WP 2016/2017 Published October 2015

WP 2017 – will be finalised July 2016





Preliminary Results WP 2016

- ▶ **CIRC-2016 2 stage:** **20** IE participants including 2 IE coordinators (1 main list and 1 withdrawn) – of which 5 on Main List
- ▶ **SC5-2016 2-stage:** No IE Coordinator – **8** IE participants – of which 2 in Main List
- ▶ **SCC-02-2016 2-Stage:** **3** participants of which 1 IE coordinator (on Main List) – overall 2 on Main List
- ▶ **SC5-12, SC5-24:** No IE applications





Have your say on the WP2018-20

Public Consultation

CONSULTATION OF STAKEHOLDERS ON POTENTIAL PRIORITIES FOR RESEARCH AND INNOVATION IN THE 2018-2020 WORK PROGRAMME OF HORIZON 2020 SOCIETAL CHALLENGE 5 'CLIMATE ACTION, ENVIRONMENT, RESOURCE EFFICIENCY AND RAW MATERIALS'

The European Commission is starting to prepare the next Horizon 2020 Work Programme and calls for proposals, to cover the period 2018-2019-2020. Within Societal Challenge 5, research and innovation aims to "achieve a resource – and water – efficient and climate change resilient economy and society, the protection and sustainable management of natural resources and ecosystems, and a sustainable supply and use of raw materials, in order to meet the needs of a growing global population within the sustainable limits of the planet's natural resources and eco-system" and hence to address societal needs and socio-economic priorities. Since the adoption of Horizon 2020 the socio-economic and policy context has been changing (see the background document below). For Societal Challenge 5, the budget to be allocated will be in the order of magnitude of €1 billion. The responsibility is great, hence the decision to launch a new consultation of stakeholders to gather valuable input for this final programming period.

Please consider the following questions, citing in support of your response any available evidence such as foresight and other assessments of research and innovation trends and market opportunities, across the six sub-challenges of Societal Challenge 5 (i.e. 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; Enabling the transition towards a green economy and society through eco-innovation; Developing comprehensive and sustained global environmental observation and information systems; Cultural heritage):

- 1) What are the challenges in the areas of Societal Challenge 5 'Climate action, environment, resource efficiency and raw materials' that require action under the Work Programme 2018-2020? Would they require an integrated approach across the Horizon 2020 Societal Challenges and Leadership in Enabling and Industrial Technologies?
- 2) What is the output/impact that could be foreseen? Which innovation aspects could reach (market) deployment within 5-7 years?
- 3) Which gaps (in science and technology, innovation, markets, policy, financing and governance, regulation etc.) and potential game changers, including the role of the public sector in accelerating changes, need to be taken into account?
- 4) Which areas could benefit from integration of horizontal aspects such as social sciences and humanities, responsible research and innovation, gender aspects, international cooperation?
- 5) In view of the recent evolution of the socio-economic and policy context (see point 3 of this document), what are the emerging priorities for Societal Challenge 5?

Please send your responses by e-mail to:

RTD-ENV-H2020STAKEHOLDERS@ec.europa.eu

This consultation closes on Friday, 8 April 2016.



Drivers for 2018-2020 (whole programme)

- **Gap analysis with regards to H2020 S.P.**
- **10 Commission priorities**
- **Commissioner Moedas' 3 O's**
- **Emerging policy drivers:**
 - *Disruptive and Open Innovation*
 - *Migration*
 - *Security: terrorism – radicalisation – cybersecurity*
 - *Physical meets digital - digitisation of the research/learning, working and living environment*
 - *Energy & resource scarcity challenge and fighting climate change*
 - *Implementing the Sustainable Development Goals (SDGs)*
 - *Making the EU a stronger global actor*

Potential strategic priorities for SC5 WP 2018-20

- Support for research to close critical knowledge gaps
- Support for large-scale demonstrators with replication potential
- Systemic approach; alignment of R&I with other EU policies; alignment between EU R&I and national R&I efforts
- Potential priority areas with cross-cutting relevance:
 - **Industry in the circular economy**
(incl. raw materials and systemic eco-innovation)
 - **Innovating cities** (incl. NBS & DRR)
 - **Climate action after COP21** (incl. climate services, decarbonisation, the Arctic and NBS)
 - **The water-food-energy nexus**
(incl. NBS, DRR, PRIMA)
 - **Sustainable supply of raw materials**
- Potential priority areas within SC5: - **Earth Observation**
- **Cultural heritage**



Gap Analysis

- ▶ Budget allocation and the number of projects and topics per activity, the efforts are evenly concentrated across activity 5.1, 5.2, 5.3, 5.4, followed by activity 5.5 and 5.6.
- ▶ No major gaps have been revealed by the analysis; only minor areas require additional efforts



Areas which have not been addressed directly/exclusively with dedicated topics

- Sub-activity 5.1.2, 'potential impacts, costs, risks and benefits of geo-engineering options';
- Sub-activity 5.2.1, 'impacts of environmental changes on human well-being';
- Sub-activity 5.2.3, 'natural hazards' specific to volcanic and seismic hazards, 'resilience of societies and ecosystems to pollutants and pathogens and to catastrophic events', and 'improving capacities for forecasting, early warning and assessing vulnerabilities and impacts including the multi-risk dimension';
- Sub-activity 5.3.1, 'global standards';
- Sub-activity 5.4.2, 'public acceptance of innovation'; and
- Sub-activity 5.4.3, 'development of indicators for policy makers'.

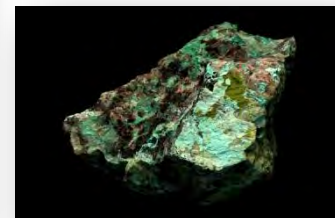
At the sub-activity level

Sub-activity 5.6.2 on 'Providing for a better understanding on how communities perceive and respond to climate change and seismic volcanic hazards' has not yet been specifically addressed.



WP 2016/17 Structure

- Industry 2020 in the Circular Economy
- Blue Growth
- Smart and Sustainable Cities
- Priority Areas with SC 5
 - Climate Services
 - Towards a low-carbon Europe
 - NBS for territorial resilience
 - Water
 - Raw Materials
 - Earth Observation
 - Cultural Heritage





European Innovation Partnerships

EIPs are challenge-driven, focusing on societal benefits and a rapid modernisation of the associated sectors and markets.

http://ec.europa.eu/research/innovation-union/index_en.cfm?pg=eip





European Institute of Innovation & Technologies



The EIT creates collaboration between innovation and excellence centres with the aim of boosting the innovation process



<http://eit.europa.eu/>





EIT Knowledge Innovation Communities

KICs carry out a whole range of activities, covering the entire innovation chain – including training and education programmes, reinforcing the journey from research to the market, innovation projects and business incubators.

KICs react in an effective and flexible way to new challenges and changing environments.

<http://eit.europa.eu/>

The EIT's first three KICs were launched in 2010:

- **Climate-KIC**: addressing climate change mitigation and adaptation
- **EIT ICT Labs**: addressing information and Communication Technologies
- **KIC InnoEnergy**: addressing sustainable energy

and a further two in 2014:

- **EIT Health**: addressing healthy living and active ageing
- **EIT Raw Materials**: addressing sustainable exploration, extraction, processing, recycling and substitution





Joint Technology Initiatives

http://ec.europa.eu/research/industrial_technologies/ppp-in-research_en.html

Means to implement the Strategic Research Agendas (SRAs) of a limited number of European Technology Platforms (ETPs).

Implemented via Joint Undertakings, that manage research projects - JUs have a dedicated budget and staff - They organise calls for proposals

- Innovative Medicines Initiative (IMI)
- Aeronautics and Air Transport (Clean Sky)
- Fuel Cells and Hydrogen (FCH)
- Embedded Computing Systems (ARTEMIS)
- Nanoelectronics Technologies 2020 (ENIAC)





Public Private Partnership

http://ec.europa.eu/research/industrial_technologies/ppp-in-research_en.html

The contractual PPPs do not organise their own calls - funding is awarded through Horizon 2020 open calls.

Each euro of public funding is expected to trigger additional investments of between three and 10 euro to develop new technologies, products and services which will give European industry a leading position on world markets

- **Factories of the Future (FoF)**
- **Energy-efficient Buildings (EeB)**
- **Sustainable Process Industry (SPIRE)**
- **European Green Vehicles Initiative (EGVI)**
- **Photonics**
- **Robotics**
- **High Performance Computing (HPC)**
- **Advanced 5G networks for the Future Internet (5G)**





Joint Programming Initiatives





Experts Groups Reports



From Niche to Norm

Suggestions by the Group of Experts on a 'Systemic Approach to Eco-Innovation to achieve a low-carbon, Circular Economy'



Research and Innovation



Getting cultural heritage to work for Europe

Report of the Horizon 2020 Expert Group on Cultural Heritage



Research and Innovation



A European research and innovation

Roadmap for Climate Services

Research and Innovation



Towards an EU Research and Innovation policy agenda for Nature-Based Solutions & Re-Naturing Cities

Final Report of the Horizon 2020
Expert Group on 'Nature-Based Solutions
and Re-Naturing Cities'
(full version)



Research and Innovation



Call Topics 2016/2017





Industry 2020 in the Circular Economy

Systemic Innovation: Responding to a societal challenge by obtaining a systems-wide transformation

Trans-disciplinary Perspective

Actions aiming at demonstrating the economic & environmental feasibility of the circular economy approach

**7th Environmental Action Programme (2014) Towards a Circular Economy
(2014) European Industrial Renaissance
EU Env. Technology Verification (ETV)**



**SPIRE PPP
EIP on Water
EIP on Raw Materials
ECO-INNOVERA ERAnet
EIT KICs
Bio-based Industries JTI**





Industry 2020 in the Circular Economy (Part of Cross-cutting Activities WP)

CIRC-01-2017	Systemic, eco-innovative approaches for the circular economy: large-scale demonstration projects (IA) (b) Systemic services for circular economy (2017)
CIRC-02-2017	Water in the context of the circular economy (IA) (b)Next generation water systems/services

Additional text (Impacts):

Implementing the Sustainable Development Goals (SDGs), in particular SDG 12 'Ensure sustainable consumption and production patterns', as well as the conclusions of the COP21 Paris Agreement.

Implementing the Sustainable Development Goals (SDGs), in particular SDG 12 'Ensure sustainable consumption and production patterns' and SDG 6 'Ensure availability and sustainable management of water and sanitation for all', as well as the conclusions of the COP21 Paris Agreement.



Same deadlines as main SC5 WP





Industry 2020 in the Circular Economy (Part of Cross-cutting Activities WP)



Mapping Research Excellence and Capacity at EU level for Horizon 2020 Topic CIRC-02-2016-2017: Water in the Context of the Circular Economy

Reference: 2015-W-SSS- 2.1
'Efficient Nutrient Recovery from Water'

Analysis of Water Research Excellence in Europe

"Prepared for the Environmental Protection Agency":

By Aoife Moloney, Jade Siqueira, Aoife Kyne, and Kevin Fitzgibbon - Water Systems and Services
Innovation Centre, Nimbus Centre, Cork Institute of Technology

October 2015

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Mapping Research Excellence and Capacity at EU level for Horizon 2020 Topic CIRC-02-2016-2017: Water in the Context of the Circular Economy

2015-W-SS-20 SSS 2.2
Towards the next generation of water systems and services
– large scale demonstration projects

Mapping Research Excellence in Europe

Prepared for the Environmental Protection Agency

by

Dr. John Gallagher & Dr. Aonghus McNabola (Trinity College Dublin)

October 2015

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Blue Growth: Demonstrating an Ocean of Opportunities

Global warming in Artic => Geo-political & geo-economic consequences; global consequences (impacts on sea-level, weather patterns, extreme events, socio-economic impacts)

➤ Identify potential thresholds affecting Artic ecosystems & society

- ❑ Artic Observing Systems
- ❑ Impacts on weather & climate (modelling)
- ❑ Impacts of Climate Impacts on Permafrost

Dev. of EU Policy towards Artic Region
WMO Programme Year of Polar
Prediction



Transatlantic Ocean Research
Alliance
Sustaining Artic Observation
Networks
Cold Region Initiative – GEO
EU Atlanta Project
Copernicus
European Space Agency



Blue Growth (Part of SC2 Work Programme)

***Different deadlines to main SC5 WP (14/02/2017)**

BG-11-2017	The effect of climate change on Arctic permafrost and its socio-economic impact, with a focus on coastal areas (RIA)
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Topic 2017: €10m





NBS for sustainable cities and territorial resilience

- ✓ Innovation through NBS => Improve economic, social & environmental resilience of cities, rural & natural areas
- ✓ NBS: Cost-effective, locally attuned, resource efficient, multi-purpose, multi-functional and multi-beneficial
 - Sustainable Cities through NBS
 - Governance, business, financing models
 - NBS for hydro-meteorological risk reduction
 - Insurance value of ecosystems
 - Multi-Stakeholder dialogue platform

BIODIVERSA ERAnet

H2020 2015 Project on EU Mechanism for Biodiversity & Ecosystem Services



Experts Group Report
EU Water Framework Directive
7th Environmental Action Programme
EU Biodiversity Strategy to 2020
EU Climate Change Adaptation Strategy
Water Blueprint
EU Com. On Green Infrastructures
UN Sustainable Development Goals
UN Conventions on biodiversity/soil & land management/disaster risk reduction
Sendai Framework for Disaster Risk Reduction 2015-2030
Green Paper on the insurance of natural and man-made disasters



Smart and Sustainable Cities Call (Part of Cross-cutting Activities WP)

Sustainable cities through nature-based solutions

SCC-02-2017

Demonstrating innovative nature-based solutions in cities
NBS for inclusive urban regeneration (IA)

Additional text:

- Conclusions of the COP21 Paris Agreement
- SDG 11 'Make cities and human settlements inclusive, safe, resilient and sustainable'
- Implementing the Sustainable Development Goals (SDGs), in particular SDG 1 'End poverty in all its forms everywhere' and SDG 10 'Reduce inequality within and among countries'.

Budget:

€40m 2017

Same deadlines as main SC5 WP





Priority Areas within SC5

Systemic approach to promote a more resource efficient, greener and more competitive economy, as part of Smart, Inclusive Sustainable Growth

- Climate Services
- Towards a low-carbon Europe
- Nature Based Solutions
- Water
- Raw Materials
- Earth Observation
- Cultural Heritage

Systemic Innovation
EU-Global approach

GEOSS, Copernicus, ESA
data
Rio+20/post 2015
IPCC
Belmont Forum
LIFE
NCFF
JPIs
EIT KICs

H2020 Objectives:

35% of H2020 budget towards Climate
60% support Sustainable Development

Trans-disciplinary approach
Social sciences & humanities essential





SC5 – Climate Services & Towards a Low-Carbon EU

- To build EU's capacity to respond & improve resilience to climate change
- ❑ Strengthening the market for climate-services for mitigation & adaption needs
- ❑ Translation of existing climate data & info. into tools, products & info.
- Define & match the demand of end-users
- Assess barriers & constraints
- Develop adequate interfaces between suppliers & users
- Uptake of climate information & services in decision-making process



IPPC 5th Assessment Report
Pres. Juncker's commitment to fight global warming
Roadmap for Climate Services
Roadmap for moving to a low-carbon economy by 2050

Copernicus climate change services
H2020 ERANet on Climate Services
Climate JPI, UNFCCC
Global Carbon Project, Future Earth
International Partnership in Ice Core Sciences

Not only about networking,
assessing knowledge gaps,
developing supply-driven
methodologies





Climate Services & Towards a Low-Carbon Europe

SC5-01-2017	From climate service concepts to piloting and proof-of-concept (2017 – Research and Innovation Action – RIA)
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) *** new
SC5-31-2017	Widening international cooperation activities on climate adaptation and Mitigation (CSA) *** new
SC5-06-2017	Pathways towards the decarbonisation and resilience of the European economy in the timeframe 2030-2050 and beyond - The risks and costs of climate change for Europe (2017 - RIA)
SC5-07-2017	Coordinating and supporting research and innovation actions on the decarbonisation of the EU economy (CSA)

Budget: RIAs and IAs: €43m in 2017





Climate Services & Towards a Low-Carbon Europe



Mapping Research Excellence and Capacity at EU level for
the Horizon 2020 Topic SC5-01-2017:
*Exploiting the added value of climate services: From
climate service concepts to piloting and proof-of-concept*

2015-CCRP-SS-4

Mapping Research Excellence in Europe

Prepared for the Environmental Protection Agency
by
Dr. John Gallagher & Dr. Aonghus McNabola (Trinity College Dublin)

February 2016

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Mapping Research Excellence and Capacity at EU level for Horizon 2020 SC5-02-2017



Mapping Research Excellence
And Capacity at EU level for
Horizon 2020 Topic SC5-02-2017

(Integrated European regional modelling
and climate prediction system)

2015-CCRP-SS.10

This study has been conducted on behalf of the EPA by



Main author: Xavier Dubuisson Eng. MSc.
March 2016





SC5 – NBS for sustainable urbanisation and territorial resilience

- ✓ Innovation through NBS => Improve economic, social & environmental resilience of cities, rural & natural areas
- ✓ NBS: Cost-effective, locally attuned, resource efficient, multi-purpose, multi-functional and multi-beneficial
 - Sustainable Cities through NBS
 - Governance, business, financing models
 - NBS for hydro-meteorological risk reduction
 - Insurance value of ecosystems
 - Multi-Stakeholder dialogue platform

BIODIVERSA ERAnet

H2020 2015 Project on EU Mechanism for Biodiversity & Ecosystem Services



Experts Group Report
EU Water Framework Directive
7th Environmental Action Programme
EU Biodiversity Strategy to 2020
EU Climate Change Adaptation Strategy
Water Blueprint
EU Com. On Green Infrastructures
UN Sustainable Development Goals
UN Conventions on biodiversity/soil & land management/disaster risk reduction
Sendai Framework for Disaster Risk Reduction 2015-2030
Green Paper on the insurance of natural and man-made disasters



NBS for sustainable cities and territorial resilience

Part of SC5 Call

SC5-08-2017	Large-scale demonstrators on nature-based solutions for hydro-meteorological risk reduction (IA)
SC5-32-2017	Biodiversity scenarios (ERA-NET Cofund) *** new

Budget: SC5-08-2017 €25m





NBS for sustainable cities and territorial resilience

Part of SC5 Call



Mapping Research Excellence
and Capacity at EU level for
Horizon 2020 Topic SC5-08-2017
(Innovative nature-based solutions for
hydro-meteorological risk reduction)

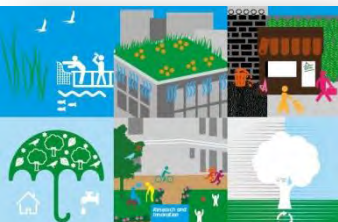
2015-W-SS-23 SSS 1.2

This study has been conducted on behalf of the EPA by



Main author: Xavier Dubuisson Eng. MSc.
Version: draft v.2, 12-October 2015

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Water issues now addressed across the whole of Horizon 2020

Integrated in LEIT and several SC

Under SC5:

- SC5-01-2017: Exploring the added value of climate services
- SC5-02-2017: Integrated European regional modelling and climate prediction system
- SC5-08-2017: Large-scale demonstrators on nature-based solutions for hydro-meteorological risk reduction
- CIRC-02-2017: Water in the context of the circular economy
- SCC-02-2017: Demonstrating innovative nature-based solutions in cities
- Topics in the call H2020-SFS-2017 'Sustainable Food Security – Resilient and resource-efficient value chains' also address issues related to water management in agriculture and/or food production.



Water JPI
EIP on Water
PRIMA

EU Water Framework Directive
7th Environmental Action
Programme
Water Blueprint
UN Sustainable Development
Goals



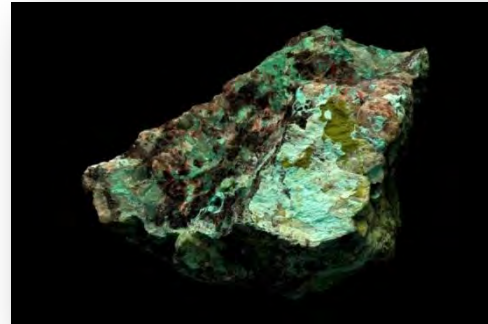


SC5 - Water

SC5-33-2017

Closing the water gap (ERAnet COFUND) *** new





SC5 – Raw Materials

EIP on Raw Materials
Joint Undertaking for BBI
SPIRE PPP

Securing supply of minerals & metals through innovative production technologies for primary & secondary materials

- *Bio-based materials (wood-based & natural rubber) => SC2 and Joint Undertaking for Bio-Based Industries & SC5-15f*
- *Substitution of critical and scarce raw materials => NMBP & SC5-15a*
- *Resource efficiency, re-use & product LCA => Industry 2020 in the Circular Economy Call*

RIAs: TRL 4-5 / industrially-driven consortia

IAs: Building on Raw Materials call from WP2014/15 (TRL 3-6) => TRL 6-8 in this call (viability of cost-effective, environmentally sound & safe production of primary and secondary raw materials) / Industrially-driven consortium

CSAs => Framework conditions, building EU knowledge base, coordination of MS research & international cooperation

EU Raw Materials Policy

INSPIRE Directive

2014 Recommendations on the framework conditions for the extraction of non-energy raw materials in the EU





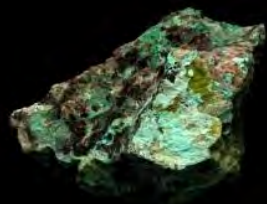
Raw Materials

SC5-13-2017: New solutions for the sustainable production of raw materials

c) New sensitive exploration technologies (2017) RIA

Budget: €10m 2017

Projects: €3–7m





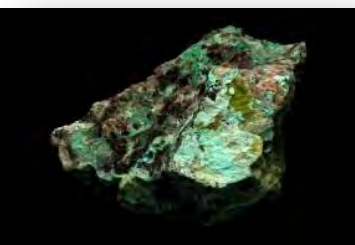
Raw Materials

SC5-14-2017: Raw Materials Innovation Actions

- b) Processing of lower grade and/or complex primary and/or secondary raw materials in the most sustainable ways (2017)(IA)
- c) Sustainable metallurgical processes (2017) (IA)

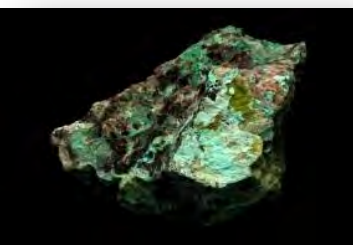
Budget: €56m 2017

Projects: €8–13m





Raw Materials





Raw Materials

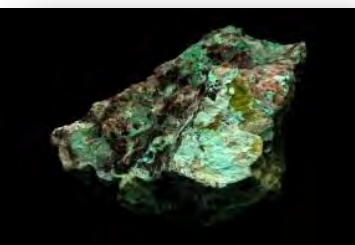
SC5-15-2017: Raw materials policy support actions (CSAs)*

- b) Good practice in waste collection systems (2017)
- c) Optimising collection of raw materials data in Member States (2017)
- d) Linking land use planning policies to national mineral policies (2017)
- e) EU network of mining and metallurgy regions (2017)
- f) EU network of regions on sustainable wood mobilisation (wood supply) (2017)

Budget: a), e) €3m

b), c), d), f) €1.5m

* One action per subtopic



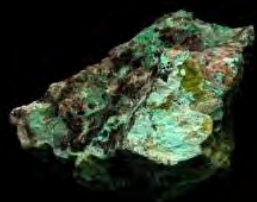


Raw Materials

SC5-16-2017: Raw materials international co-operation (CSAs)

c) International network of raw materials training centres (2017)

Budget:
SC5-17 €5m





SC5 – Earth Observations

To maximise the benefits for EU Citizens of the Earth Observation infrastructure

Innovative solutions to complete the in-situ component of the GEOSS & Copernicus and make available an operational information system for validated Earth observation datasets

SC5 Focus:

- Stimulate the smart use of strategic resources
- Support development of evidence-based policies
- Foster new environmental & climate services
- Develop new market opportunities

INSPIRE

Reuse of Public Sector Information



GEOSS
Copernicus
ERC, LEIT, EU Metrology
Research programmes
GEO Global initiatives
(GEOGLAM, GEOBON,
GFOI, GMOS, AFRIGEOSS)
EU funded Citizens'
Observatories activities





Earth Observations

SC5-18-2017: Novel in-situ observation systems (RIA)

SC5-19-2017: Co-ordination of citizens' observatories initiatives (CSA)

Budget:

SC5-19-2017 - €1m

SC5-18-2017 - €15M (Projects €4-5m)





Earth Observations



Mapping Research Excellence and Capacity at EU level for Horizon 2020 Topic "SC5-18-2017: Novel in-situ observation systems"

Reference: 2015-SE-SS-2

Analysis of Research Excellence in Europe

"Prepared for the Environmental Protection Agency":

By Aoife Moloney and Kevin Fitzgibbon - Water Systems and Services Innovation Centre, Nimbus
Centre, Cork Institute of Technology

February 2016

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Experts Group Report
JPI on Cultural Heritage
Energy efficient Buildings
PPP
EU Construction TP



SC5 – Cultural Heritage for Sustainable Growth

To harness the full potential of cultural heritage as a strategic resource for a sustainable Europe

To promote cultural heritage as a production (rather than cost) factor and an investment opportunity

- **Large-Scale demonstration projects** developing & deploying novel heritage-led solutions for sustainable growth (urban/rural)
- 6 “Role Models” and 3 “Replicators”
- **RIA** on Financing, business & governance models

EU Com: Towards an integrated approach to cultural heritage for Europe

Councils Conclusions 2014

EU Com. Promoting cultural and creative sectors for growth and jobs in the EU

EU Agenda for Culture,

EU Com. On Green Infrastructure <...>



Cultural Heritage for Sustainable Growth

SC5-21-2017: Cultural Heritage as a driver for sustainable growth (IA): 2017 Heritage-led rural regeneration

SC5-22-2017: Innovative financing, business and governance models for adaptive reuse of cultural heritage (RIA)

Budget:

SC5-21-2017 €10m

SC5-22-2017 €5m





Support to Policy, PCP/PPI & prizes

SC5-23-2017: Support to confirmed Presidency events (conferences) – Malta, United Kingdom, Estonia

SC5-26-2017: Pre-commercial procurement on soil decontamination





SC5 – Contributions to other Calls

Calls	Actions	funding type	2016	2017
SME Instr. call	Boosting the potential of small businesses in the areas of SC5 Indicative budget: €25M in 2016, €27.5M in 2017	SME Instr	x	x
FTI call	approx. contribution €7M in 2016 (tbc), in 2017 tbc	FTI <i>p.m.</i>	x	?





Dates for your Diary

Deadlines

➤ **SC5 (incl. SCC and CIRC topics):**

❖ **2017:** 7th March 2017 and 5th September 2017

➤ **Blue Growth Topics:**

❖ **2017:** 14th February 2017

EC Info Day: 14th September 2016



General Comments on drafts

- ❖ Proposals need to address the **FULL** scope of the topic
- ❖ Proposals need to be more **INNOVATIVE & AMBITIOUS**
- ❖ **For 2-stage topics: IMPACTS** should be given as much attention as Excellence (same marks)
- ❖ Check the composition of your consortium based on:
 - ❖ Type of organisations
 - ❖ Geographical Balance
 - ❖ Trans-disciplinarity (don't forget SSH)
 - ❖ Gender Balance/Aspect



Comments ctd.

- ❖ **Section 1.1 Objectives:** should list the project objectives against measurable milestones/deliverables and set in the context of the Topic Expected Impacts
- ❖ **Section 1.2. Relevance to the WP:** should be organised based on the contents of the Challenge and Scope
- ❖ **Section 1.3 Concept & Approach:** should provide
 - ❖ Concept (assumptions/models)
 - ❖ Positioning (TRLs)
 - ❖ R&I Activities related to project and links
 - ❖ Overall approach - a short description of the Work Package in the overall context of the proposal objectives and topic impacts / Description of Project Team (in terms of coverage of discipline / type of organisations / demonstrators, etc.)
 - ❖ **GENDER !!!**



Comments ctd.

- ❖ **Section 2. Impacts:** should be based on the Topic Expected Impacts / also provide an idea of stakeholders; end-users; lead-user (who will use the outputs of the project) / Indicators of success



Societal Challenge 5 Support Team

CLIMATE ACTION, ENVIRONMENT, RESOURCE EFFICIENCY AND RAW MATERIALS



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What We Offer

- Information days
- Dissemination
- Contact / Support
- Review of proposals
- Partner Search Facility
- Online Catalogue of Irish Expertise

Any suggestions?

Let us know if you intend to apply!





Tips for Beginners

Networking, Networking, Networking....

- Clarify your Scientific Niche
- Identify *Who is Who* in this Scientific Niche
- Join the relevant European Associations & Networks
- Get involved in the “Background Initiatives” (JPIs, EIPs,...)
- Establish a Role (“Participate”) in the European Scientific Community
- Clear Idea of your proposed contribution
- Promote Scientific Expertise to future partners
- Become a “Guru” on Horizon 2020
- Participate first as partner (CSA, FS, Small research projects)

Contact Us!!!





Thinking of applying for the H2020 Societal Challenge 5 2016/2017 calls?

If you are considering applying for the [H2020 2016/17 calls](#), here are a few tips!

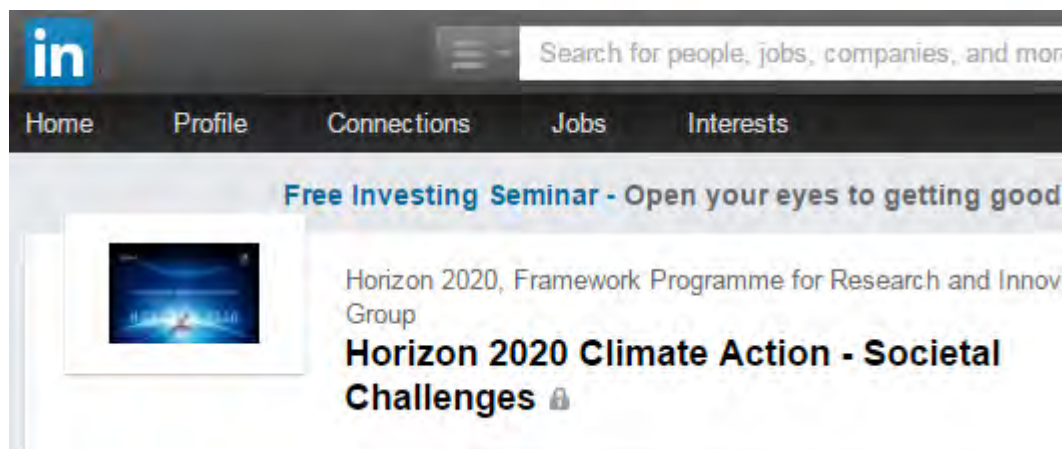
- Let us know if you are applying - **contact us as soon as possible!**
- Contact your **Research Office**
- Looking for partners?
- Identify the past EU-funded projects to your topic using the [CORDIS Project Search](#)
- Identify the relevant networks, as listed in the Work Programme
- Register an expression of interest on the EPA Horizon 2020 [Catalogue of Expertise](#)
- Register your interest also on the EU-wide [NCP Partner Search Tool](#)
- Attend relevant events and **NETWORK!**
- Check the [Partner Search Requests](#) received in relation to the Horizon 2020 SC5 Calls.
- Don't forget about the available [Enterprise Ireland Financial Support](#)
- We can review your draft proposals - just remember to send them to us at least weeks in advance of the call deadlines.





Networking

Networking, Networking, Networking....





Monthly Update Email



Update on Horizon 2020 Societal
Challenge 5 and other related
activities



Public Consultation on the Water JPI Strategic Research and Innovation Agenda

The Water Joint Programming Initiative (JPI) launched the new version of the [Water JPI Strategic Research and Innovation Agenda \(SRIA 1.0\)](#) in June 2014.

A public consultation on the Research Needs identified in the Water JPI SRIA is now open until the **24th May 2015**.

[Click here to complete the survey](#)





Online Catalogue of Expertise

HORIZON 2020

epa Research **Online Catalogue of Irish Expertise in Environmental Research**

- Are you looking for an Irish Partner for a European project?
- Want to make contact with the Irish Research Community?
- Do you want to apply under EU funding opportunities?
- Are you looking for partners?

Following on from the success of the FP7 Catalogue of Irish Expertise in Environmental Research, the Environmental Protection Agency is now launching its new catalogue tailored for:

- National & European Funding Opportunities
- Joint Programming Initiatives (Climate & Water)
- Horizon 2020 Societal Challenge 5
- Cost & LIFE Programmes

You can:

- View & search the profiles of Irish researchers & companies
- Register your profile
- Post your partner search request or expression of interest in a specific call

To access, browse, search the catalogue or register your profile go to <http://erc.epa.ie/h2020catalogue>

For further information please contact Dr Alice Wemaere - a.wemaere@epa.ie

JPI Climate **LIFE** **ecost** **Water JPI**

EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

Since the launch of the H2020 Catalogue of Environmental Expertise, there have been
> 160,000 Hits/Views

277 Profiles

<http://erc.epa.ie/h2020catalogue>





Online Catalogue of Expertise



Based on 2007/2008 results



Working Group – ToRefs.

- ▶ **Dialogue** with main stakeholders,
- ▶ Encourage **information sharing / feedback**,
- ▶ Gain **insight of Irish Participation**,
- ▶ Identify **priority research** from a **National perspective**,
- ▶ Ensure **better representation** of Irish priorities,
- ▶ Foster **collaborative linkages** between Irish organisations,
- ▶ Encourage a **national platform** for Environmental Research,
- ▶ Discuss **national support** offered





Financial Support (EI)

<http://www.horizon2020.ie/>

- Coordination support for academics
- Travel grants for academic researchers
- Support for companies participating in H2020

The screenshot shows the top section of the Horizon 2020 website. It features the Enterprise Ireland logo and the Horizon 2020 banner with the text 'SCIENCE | INDUSTRY | SOCIETY'. Below the banner is a navigation bar with links: HOME | NEWS | WHO CAN HELP | PRIORITIES | CONTACT. To the right of the navigation bar are the Irish Government logo and the European Union flag. The main text states: 'Horizon 2020 is the biggest EU research and innovation programme yet, one of the biggest publicly funded worldwide and has a budget of nearly €80 billion over seven years.' Below this text are three columns, each with a circular icon and a title: 1. 'Excellent Science' with an atom icon, describing the goal to raise excellence in Europe's science base. 2. 'Competitive Industries' with a factory icon, describing the goal to make Europe a more attractive location for research and innovation. 3. 'Better Society' with a group of people icon, describing the goal to reflect the policy priorities of the Europe 2020 strategy and address major concerns shared by citizens. Each column ends with a 'LEARN MORE...' link.

HOME | NEWS | WHO CAN HELP | PRIORITIES | CONTACT

Horizon 2020 is the biggest EU research and innovation programme yet, one of the biggest publicly funded worldwide and has a budget of nearly €80 billion over seven years.

Excellent Science	Competitive Industries	Better Society
Horizon 2020 will raise the level of excellence in Europe's science base and ensure a steady stream of world-class research to secure Europe's long-term competitiveness. It will support the best ideas, develop talent within Europe.....	The Competitive Industries objective aims at making Europe a more attractive location to invest in research and innovation, by promoting activities where businesses set the agenda. It will provide major investment in key industrial.....	Horizon 2020 reflects the policy priorities of the Europe 2020 strategy and addresses major concerns shared by citizens in Europe and elsewhere. A challenge-based approach will bring together resources and knowledge across different.....
LEARN MORE...	LEARN MORE...	LEARN MORE...





Contact Us:

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 - ❑ Dr. Brian Donlon, EPA (b.donlon@epa.ie)
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Thank You

