Horizon 2020
Societal Challenge 5
Climate Action, Environment, Resource Efficiency and Raw Materials

2017 Roadshows – NUI Galway
Alice Wemaere (EPA) & Mark Sweeney (EI)
11th December 2017
Three Priorities

Excellent science

Industrial leadership

Societal challenges
What is Horizon 2020?

**Excellent Science (24.4 B €)**
- European Research Council (13.1 B €)
- Future and Emerging Technologies (2.7 B €)
- Marie Skłodowska-Curie Actions (6.1 B €)
- Research Infrastructures (2.5 B €)

**Industrial Leadership (17 B €)**
- LEIT = Leadership in enabling and industrial technologies
  - ICT
  - Nano, new materials
  - Biotechnology
  - Space (13.5 B €)
- Access to Risk Finance (2.9 B €)
- Innovation in SMEs (0.6 B €)

**Societal Challenges (29.7 B €)**
- Health (7.5 B €)
- Food (3.9 B €)
- Energy (6 B €)
- Transport (6.3 B €)
- Climate (3 B €)
- Inclusive Societies (1.3 B €)
- Security (1.7 B €)
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

• Last Work Programme: 3 years
Focus Areas for WP 2018-2020

- Building a low-carbon, climate resilient future*
- Digitising and transforming European industry and services
- Connecting economic and environmental gains – the Circular Economy*
- Boosting the effectiveness of the Security Union

* SC5 to contribute
Building a low-carbon, climate resilient future

Mission to achieve:

- Operationalisation of the Paris Agreement (PA) goals
- Accelerated transformation towards carbon neutrality, through co-design, co-development and co-deployment of technologies and services by researchers, entrepreneurs and citizens
- Enhanced climate resilience in Europe and beyond
- Long-term mitigation and adaptation policy planning, deployment of technology to reduce emissions, and enhanced climate change resilience in developing countries
Connecting economic and env.\textsuperscript{tal} gains – the Circular Economy

Impacts to be observed in:

- Measurable improvement in efficiency and effectiveness of resource (primary and secondary) use, including energy
- Measurable reductions in waste, env.\textsuperscript{tal} pollution and GHG emissions; transforming recyclable waste into secondary raw materials
- Sustaining and making use of natural cycles
- Competitive advantages for existing businesses
- New business opportunities
- Security of raw materials supply
Structure of the Work Programme

“Moving to a greener, more resource efficient and climate resilient economy in sync with the natural environment, demonstrating a strong commitment to supporting the UN’s Sustainable Development Goals (SDGs) and the targets of the COP21 Paris Agreement”

The WP is structured around 2 call areas:

- Building a low carbon, climate resilient future: Climate action in support of the Paris Agreement
- Greening the economy in line with the SDGs
Call: "Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement"

- Climate action in support of the Paris Agreement
  All topics focused on climate action from the priority areas:
- Water for our environment, economy and society
- Innovating Cities for sustainability and resilience
- Protecting and leveraging the value of our natural and cultural assets:
  - Earth observation
  - Nature-based solutions, disaster risk reduction & natural capital accounting
  - Heritage alive
Call: "Greening the economy in line with the SDGs"

- Circular Economy
- Raw Materials

Topics not focused on climate action from the priority areas:

- Water for our environment, economy and society
- Innovating Cities for sustainability and resilience
- Protecting and leveraging the value of our natural and cultural assets:
  - Earth observation
  - Nature-based solutions, disaster risk reduction & natural capital accounting
  - Heritage alive
Call Timeframe

2018:
• Call opening: 07/11/2017 (pre-publication October 2017)
• 1-stage and 1st step of 2-stage process: 27/02/2018
• 2nd step of 2-stage process: 04/09/2018

2019:
• Call opening: 14/11/2018
• 1-stage and 1st step of 2-stage process: 19/02/2019
• 2nd step of 2-stage process: 04/09/2019
Climate Related Calls in Support of the PA

Decarbonisation

LC-CLA-01-2018: Supporting the development of climate policies to deliver on the Paris Agreement, through Integrated Assessment Models (IAMs)
  a) Supporting the design & assessment of climate policies
  b) Improving Integrated Assessment Models

LC-CLA-02-2019: Negative emissions and land-use based mitigation assessment
  a) Feasibility of negative emissions for climate stabilisation
  b) Land-based mitigation
Climate Related Calls in Support of the PA

Climate adaptation, impacts and services

LC-CLA-03-2018: Climate change impacts in Europe
a) Climate change impacts on health in Europe
b) Global climate change impacts from a European perspective

LC-CLA-04-2018: Resilience and sustainable reconstruction of historic cities and settlements to cope with climate change and hazard events

LC-CLA-05-2019: Human dynamics of climate change
a) Climate services for Africa
b) Climate and human migration
Climate Related Calls in Support of the PA
Inter-relations between climate change, biodiversity and ecosystem services
LC-CLA-06-2019: Inter-relations between climate change, biodiversity and ecosystem services

The Cryosphere
LC-CLA-07-2019: The changing cryosphere: uncertainties, risks and opportunities
a) Sea-level changes (Research and Innovation action)
b) Changes in Arctic biodiversity (Research and Innovation action)
c) Sustainable opportunities in a changing Arctic (Research and Innovation action)
d) Arctic standards (Coordination and Support action)
Climate Related Calls in Support of the PA

Knowledge gaps

LC-CLA-08-2018: Addressing knowledge gaps in climate science, in support of IPCC reports
a) Improving the understanding of key climate processes for reducing uncertainty in climate projections and predictions
b) Tipping points
c) Ice-core drilling in East Antarctica
Indicative topics for 2020

Decarbonisation:

LC-CLA-09-2020: Achieving long-term climate goals and sustainable development (deep decarbonisation pathways and sustainable development at national and global level; the role of lifestyle change and consumption patterns on climate change mitigation)

LC-CLA-10-2020: Innovative nature-based solutions for carbon neutral cities and improved air quality

Climate adaptation, impacts and services:

LC-CLA-11-2020: Advancing climate services (seasonal to sub-seasonal [S2D] and seasonal to decadal [S2D] forecasting; climate services prototypes)

LC-CLA-12-2020: Climate resilience of coastal cities

LC-CLA-13-2020: Pre-commercial procurement of solutions for climate change resilience
Indicative topics for 2020

Inter-relations between climate change, biodiversity and ecosystems:

**LC-CLA-14-2020**: Understanding water-energy-food nexus and streamlining water-related policies


**The Cryosphere:**

**LC-CLA-16-2020**: Polar climate: understanding the polar processes in a global context

**Knowledge gaps:**

**LC-CLA-17-2020**: Developing the next generation of Earth System Models
Greening the economy in line with the SDGs

Connecting economic and environmental gains - the circular economy

CE-SC5-01-2018: Methods to remove hazardous substances and contaminants from secondary raw materials

CE-SC5-02-2018: Independent testing programme on premature obsolescence

CE-SC5-03-2018: Demonstrating systemic urban development for circular and regenerative cities
Greening the economy in line with the SDGs

Connecting economic and environmental gains - the circular economy

CE-SC5-04-2019: Building a water-smart economy and society
a) Symbiosis between industry and water utilities
b) Large scale applications with multiple water users at various relevant scales

CE-SC5-05-2018: Coordinated approaches to funding and promotion of research and innovation for the circular economy
Greening the economy in line with the SDGs

Raw materials

CE-SC5-06-2018: New technologies for the enhanced recovery of by-products


a) Sustainable processing and refining of primary and/or secondary raw materials (2018, 2019)
c) Recycling of raw materials from buildings (2018, 2019)
Greening the economy in line with the SDGs

Raw materials

**CE-SC5-08-2018-2019-2020: Raw materials policy support actions for the circular economy**

a) Voluntary scheme for certification of treatment facilities for key types of wastes (2018)
b) Resource efficiency in wood processing, recovery and recycling (2018)
c) Responsible sourcing of raw materials in global value chains (2019)
Greening the economy in line with the SDGs


a) Breakthrough concepts and solutions for sustainable exploration, mining and/or processing (2018)
b) Digital mine (2019)
c) Recovery of metals and minerals from sea resources (2019)

**SC5-10-2019-2020: Raw materials innovation actions: exploration and Earth observation in support of sustainable mining**

a) Integrated exploration solutions (2019)
b) Services and products for the extractive industries life cycle (2019)
Greening the economy in line with the SDGs

Water for our environment, economy and society

SC5-11-2018: Digital solutions for water: linking the physical and digital world for water solutions

SC5-12-2018: EU-India water co-operation
Greening the economy in line with the SDGs

Innovating cities for sustainability and resilience

**SC5-13-2018-2019: Strengthening international cooperation on sustainable urbanisation: nature-based solutions for restoration and rehabilitation of urban ecosystems**

a) Strengthening EU-China collaboration (2018)
b) Strengthening EU-CELAC* collaboration (2019)

*: Community of Latin American and Caribbean States

**SC5-14-2019: Visionary and integrated solutions to improve well-being and health in cities**
Greening the economy in line with the SDGs

Protecting and leveraging the value of our natural and cultural assets: Earth observation


**SC5-16-2019: Development of commercial activities and services through the use of GEOSS and Copernicus data**

a) Coordination of European innovators in the domain of Earth observation (Coordination and Support Action)

b) Designing Earth observation services and products of the future, building on GEOSS and Copernicus assets (Innovation Action)
Greening the economy in line with the SDGs

Protecting and leveraging the value of our natural and cultural assets: Nature-based solutions, disaster risk reduction and natural capital accounting

SC5-17-2018: Towards operational forecasting of earthquakes and early warning capacity for more resilient societies

SC5-18-2018: Valuing nature: mainstreaming natural capital in policies and in business decision-making

a) Valuing nature: developing and implementing natural capital and ecosystem accounts in EU Member States and Associated Countries

b) Operationalisation of natural capital accounting in business decisions
Greening the economy in line with the SDGs

Protecting and leveraging the value of our natural and cultural assets: Heritage alive

SC5-19-2018: International network to promote cultural heritage innovation and diplomacy

SC5-20-2019: Transforming historic urban areas and/or cultural landscapes into hubs of entrepreneurship and social and cultural integration

SC5-21-2019-2020: ERA-NET Cofund action(s) for climate action, environment, resource efficiency and raw materials
Greening the economy in line with the SDGs

SME instrument & Fast-Track-to-Innovation

under the Horizon 2020 Work Programme Part – *Towards the next EU Framework Programme for Research and Innovation: European Innovation Council (EIC) Pilot*
Indicative topics for 2020

Connecting economic and environmental gains - the circular economy
• **CE-SC5-22-2020**: Improving the recovery and recycling of materials from composite and multi-layer products
• **CE-SC5-23-2020**: Understanding the transition to circular economy and its implications

Raw materials
• **CE-SC5-07-2020**: Raw materials innovation for the circular economy
• **CE-SC5-08-2020**: Raw materials policy support actions for the circular economy: expert network on Critical Raw Materials
Snapshot of relevant topics across Horizon 2020
4. European research infrastructures (including e-Infrastructures)

Integrating Activities for Advanced Communities: Environmental and Earth Sciences

- RI for forest ecosystem and resources research
- Natural history collections
- Research aircrafts for environmental and geo-science research
- Research vessels
- Research infrastructures for Earth's climate system modelling
- Sites and experimental platforms of anthropogenic impacts for ecosystem functioning and biodiversity research

Centres of Excellence on High Performance Computing: Environmental sciences

- Climate and weather simulation, natural hazards forecast and prevention
5.ii. Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing

**Biotechnology**
- CE topics on biotechnologies for environmental remediation and microorganism communities for plastics bio-degradation

**Sustainable process industry (SPIRE)**
- CE topics on materials processing, energy and resource efficiency, process intensification and plastic recycling

**Cultural heritage**
- Innovative and affordable solutions for the preventive conservation of cultural heritage

**Energy-efficient buildings (EEB)**
- LC topics on energy smart materials in non-residential buildings, efficient renovation, ICT solutions for residential building design, construction, operation and end-of-life
5.iii. Leadership in Enabling and Industrial Technologies - Space

**Earth observation**
- Copernicus market uptake
- LC topics on Copernicus evolution:
  - Mission exploitation concepts
  - Preparing for the next generation of Copernicus Marine Service ocean models
- Research activities in support of cross-cutting applications between Copernicus services
- Research activities in support to a European operational monitoring system for fossil CO2 emissions
- Designing EO downstream applications with international partners

**Space technologies, science and exploration**
- LC topic on Earth observation technologies
8. Health, demographic change and wellbeing

Infectious diseases and improving global health
- Mining big data for early detection of infectious disease threats driven by climate change and other factors

Decoding the role of the environment, including climate change, for health and well-being
- New testing and screening methods to identify endocrine disrupting chemicals
- The Human Exposome Project: a toolbox for assessing and addressing the impact of environment on health
- Setting the priorities for a European environment, climate and health research agenda
9. Food security, sustainable agriculture and forestry, marine, maritime and inland water research and the bioeconomy (1/2)

From functional ecosystems to healthy food
- Biodiversity in action: across farmland and the value chain
- Integrated health approaches and alternatives to pesticide use
- Stepping up integrated pest management
- Making European beekeeping healthy and sustainable

Environment and climate-smart food production and consumption
- LC topics on Climate-smart and resilient farming, joint programming management
- Integrated water management at the small agriculture catchment
- CE topics on citizen-driven food system approaches in cities and valorising urban biowaste
9. Food security, sustainable agriculture and forestry, marine, maritime and inland water research and the bioeconomy (2/2)

Building capacities
- ERANETs in agri-food: Climate change and food systems

Targeted international cooperation
- CE topic on organic fertilisers from biomass digestate

Call - Blue Growth
- LC topic on harvesting of marine biological resources
- CE topic on solutions for bio-based plastics on land and sea

Organising sustainable food and non-food value chains under changing conditions
- CE topic on closing nutrient cycles
10. Secure, clean and efficient energy

Energy efficiency
- LC topics on buildings and industries energy performance and efficiency

Global leadership in renewables
- LC topics on new renewable energy systems and solutions at consumer and energy system level

Smart and clean energy for consumers & Smart citizen-centred energy system & Smart Cities and Communities
- LC topics on consumers role, flexible energy grids, local systems and smart cities (Positive Energy Blocks/Districts)

Enabling near-zero CO2 emissions from fossil fuel power plants and carbon intensive industries
- LC and CE topics on CO2 capture, use and storage
11. Smart, green and integrated transport

**Low-carbon and sustainable transport**
- LC topics on **sustainable transport**, impact on air quality, urban mobility, vehicle environmental protection, monitoring noise and emissions, aviation, water-borne transport ...

**Blue growth**
- LC topics on **seabed survey** and on **ship emission control** scenarios, marine environmental impact and mitigation

**Green vehicles**
- LC topics on components, systems and infrastructure for the **new generation of electrified vehicles**
13. Europe in a changing world – Inclusive, innovative and reflective societies

**Migration**

- Understanding migration mobility patterns: elaborating mid and long-term *migration scenarios*
- Addressing the challenge of *forced displacement*

**Socioeconomic and cultural transformations in the context of the fourth industrial revolution**

- Innovative solutions for *inclusive and sustainable urban environments*
- Social platform on *endangered cultural heritage* and on illicit *trafficking of cultural goods*
- Collaborative approaches to *cultural heritage for social cohesion*
- Curation of *digital assets and advanced digitisation*
14. Secure societies - Protecting freedom and security of Europe and its citizens

• Call - Protecting the infrastructure of Europe and the people in the European smart cities

**Disaster-Resilient Societies**

• Prevention, detection, response and mitigation of combined physical and cyber threats to critical infrastructure in Europe
• Pre-normative research and demonstration for disaster-resilient societies

**Cybersecurity and Digital Privacy**

• Digital security, privacy and accountability in critical sectors
European Innovation Partnerships

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

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


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)
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

Water JPI

JPI Climate

FACCEJPI

Cultural Heritage: A Challenge for Europe
Joint Programming Initiatives

- **Water JPI**
  - Co-chaired by IE (EPA) since 2014

- **Climate JPI**
  - Chaired by IE (EPA) since 2017

- **biodiversa**
  - IE (EPA) as Observer since 2016
Challenge–1) Multiple pressure effects on ecosystems and ecosystem services as well as effective mitigation – adaptation tools and assessments for implementing the water related targets of the UN SDGs

- **Sub-topic–1.a.** Assessment of multiple pressures (hydromorphological changes, anthropogenic pollution, biological contamination, or/and natural hazards, etc.) effects on ecosystems and ecosystem services
- **Sub-topic–1.b.** Tools and approaches for adapting and mitigating to multiple pressures

Challenge–2) Developing accessible solutions for clean water management to address UN SDG6 targets and associated SDGs Research and innovation for near future securement of clean drinking water for inhabitants in countries across the globe, linked to the UN SDG6:

- **Sub-topic–2.a.** Developing systems for universal and equitable access to safe and affordable drinking water for all
- **Sub-topic–2.b.** Wastewater treatment and recycling
**2017 Joint Call**

### General
- Min. 3 partners from 3 different participating countries
- Requested total budget cannot exceed €1.5m (per proposal)
- Project duration: 24 to 36 months
- A Coordinator can only participate in the proposal he/she is coordinating

### Proposal
- Font size
- Page limits
- English

### Irish - Who?
- All types of organisations are eligible
- Must be based in the Republic of Ireland
- Check the EPA Terms & Conditions and Guide for Applicants

### Irish - How much?
- Irish researchers can request up to:
  - €150,000 for partners
  - €300,000 for coordinator
  - €300,000 as the Total budget of ALL Irish partners within the one proposal
### Participating Countries

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<td>Brazil</td>
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<td>France</td>
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<td>Germany</td>
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*Researchers from other countries can also participate at their own costs.*
2017 JOINT CALL

Call Timeframe

Deadline for submission of pre-proposals:
11th of December 2017
5pm CET

Deadline for submission of full proposals:
27th of April 2018
5pm CET
2018 Joint Call on Sustainable Water Management
Setting Up Network of researchers/projects:
  ◦ Ecosystem Services
  ◦ Emerging Contaminants
2018 Joint Call on Assessment of Cross(X)-sectoral climate Impacts and pathways for Sustainable transformation
Scenarios of biodiversity and ecosystem services

Scope

Development and application of scenarios of biodiversity and ecosystem services across spatial scales of relevance to multiple types of decisions

Consideration of multiple dimensions of biodiversity and ecosystem services in biodiversity scenarios
143 pre-registrations received
7 proposals involving 8 Irish researchers
3 IE Coordinators
Environment Support Team

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2017 EPA Annual Information Session on Horizon 2020 SC5: 18th October 2017 in UCD

EC Info Day and brokerage event on the Horizon 2020 Work Programme 2018-2020, for SC5: 8th and 9th November 2017

How we can help......

- Information on H2020 and other National and European Funding Opportunities (signposting)
- Information Days
- Help with Networking & Brokerage Events
- Help with Partnering
- Dissemination
- Review of proposals
Thinking of applying for the H2020 SC5 2018/2020 calls?

• 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!
• 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.
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

290 Profiles – incl. 31 from NUIG

http://erc.epa.ie/h2020catalogue
ECorda H2020 Proposals

FRAMEWORK PROGRAMME: H2020
SCOPE: Submitted Proposals
SEARCHING CRITERIA: Applicant Short Name and Research Programme
SEARCHING PHRASE: NUI GALWAY AND EU.3.5.

Number of Proposals: 7
EU Contribution to the Proposals: 55,397,303 euro
Number of Applicants: 7
EU Contribution to the Applicants: 3,388,380 euro
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2017 Results

1-Stage SC5 2017 Topics:
- 38 Irish applicants (2 coordinators)
- 11 on Main List (no coordinator) - €1.2m
- None from NUIG
- (1 from SmartBay Ireland Ltd: MELOA (main list))

2-Stage SC5 2017 Topics:
- 20 Irish applicants
- 6 on Main List - €2.3m
- None from NUIG

BG 2017 Topics:
- 13 Irish applicants - 2 from NUIG
  - ASSURE (Below available budget)
  - SOPHIE (Main List)
## DOs and DON’Ts for applicants

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<tr>
<th>Criterion</th>
<th>DO</th>
<th>DON’T</th>
</tr>
</thead>
</table>
| **Excellence** | • Define objectives clearly.  
• Be ambitious, but stay realistic.  
• Choose appropriate methodology.  
• Choose relevant partners and reliable coordinator.  
• Put effort on describing the state-of-art and proof of concept.  
• Create links with previous networks/projects and relevant policies.  
• Engage interdisciplinary expertise.  
• Stay accurate, concise throughout the proposal  
• Bring out the innovation potential.  
• If something stays unclear, contact your NCP. | • Don’t rush, poorly prepared proposal ruins even the most excellent plans.  
• Don’t repeat something what is already done.  
• Don’t forget to include partners from different regions, disciplines, stakeholder groups to compose a balanced consortium.  
• Don’t forget to show the credibility of your consortium.  
• Don’t hesitate to provide detailed description about your methodology, technical solutions etc. Superficial description of the processes is often brought out as a major shortcoming.  
• If you have a novel approach – don’t forget to describe it thoroughly and to support it with relevant references |
<table>
<thead>
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<th><strong>Criterion</strong></th>
<th><strong>DO</strong></th>
<th><strong>DON'T</strong></th>
</tr>
</thead>
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| **Impact**   | • When planning be concrete and precise.  
• Quantify as much as possible.  
• Use financial figures and develop a business model and/or business plan.  
• Elaborate a convincing commercialisation plan.  
• Take into account all the expected impacts described in the topic.  
• Expected impacts should be derived and justified on previous results.  
• Plan a good cooperation with end users from the beginning of the project.  
• Involve policy makers, SMEs and industry in the proposal or plan a sustainable cooperation with them.  
• Describe industrial uptake of research results in details.  
• Develop an excellent dissemination plan (with diverse dissemination measures).  
• Address adequately and clearly explain dissemination of project results.  
• Ask for evaluation of impacts (by professionals).  
• Ask NCPs for cooperation. | • Don’t list irrelevant and unreal impacts.  
• Don’t try to be very optimistic as it may cause the lack of credibility.  
• Don’t use general descriptions, without any specific focus.  
• Don’t use a weak or general analysis of the market and competition.  
• Don’t miss concrete market details: potential market volumes, which markets, specific products, prices, etc.  
• Don’t copy proposal’s parts (mainly IPR management) from your previous project proposals.  
• Don’t forget that the impact should be related to the particular concept, not to the call fiche.  
• Don’t repeat (or copy) required impact from the call instead of development of your own proposal content.  
• Don’t confuse dissemination with communication or exploitation.  
• Don’t forget to use concrete information about expected environmental savings. |
| **Implementation** | • Concrete and precise planning.  
• Details and Quantification. Use Tables.  
• Well-timed tasks and activities with well-balanced allocation to partners.  
• Well-balanced and justified resources and budget.  
• Consortium with partners who complement and synergize well in expertise and tasks.  
• Consultation with NCP. | • Don’t use repetitions from within the text of the proposal.  
• Don’t do “copy-pastes” from other/previous proposals.  
• Don’t forget the details - unsubstantiated/ unreferenced content/figures/numbers are causing a negative impression.  
• Don’t take beneficiaries/Partners who are “joyriders” with no significant role and tasks.  
• Don’t plan vague Deliverables and Milestones. Lack of “Plan B” and contingency measures. |
Main weaknesses, their improvement possibilities and main strengths highlighted by evaluators

**Criterion: Excellence**

<table>
<thead>
<tr>
<th>Main weaknesses in proposals</th>
<th>How to improve</th>
<th>Main strengths in proposals</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Lack of novelty</td>
<td>• Elaborate on evaluation criteria</td>
<td>• Objective and methodology</td>
</tr>
<tr>
<td>• Lack of originality</td>
<td>• More interdisciplinary expertise</td>
<td>• Partnerships</td>
</tr>
<tr>
<td>• Lack of clear objectives</td>
<td>• More clear description</td>
<td>• Very detailed information - Relevant goals</td>
</tr>
<tr>
<td>• Lack of feasibility of the proposed approach</td>
<td>• More emphasis on impacts of technical features to business model</td>
<td>• Transdisciplinary considerations</td>
</tr>
<tr>
<td>• Ambition</td>
<td>• Close cooperation with NCPs</td>
<td>• Innovation potential</td>
</tr>
<tr>
<td>• Poor description of the state-of-the-art</td>
<td>• Wider point of view of excellence</td>
<td>• Scale of the area</td>
</tr>
<tr>
<td>• Lack of precise indications of the advancement proposed</td>
<td>• Include more sub-criteria under excellence</td>
<td>• Clear and sound technical issues</td>
</tr>
<tr>
<td>• Low TRL</td>
<td>• Encourage new ideas</td>
<td>• High quality and linkages with previous or existing initiatives</td>
</tr>
<tr>
<td>• Lack of clear cost calculations</td>
<td>• To have business or market related persons involved in writing</td>
<td>• The links with the Environmental EU / global challenges on energy/climate change</td>
</tr>
<tr>
<td>• Not fully covered scope of call</td>
<td>• Feasibility study should be attached</td>
<td>• Ability to complement across countries and institutions</td>
</tr>
<tr>
<td>• Relation to the call</td>
<td>• To be more innovative</td>
<td>• Cross, accurate and complete presentation</td>
</tr>
<tr>
<td>• No link to industrial activity</td>
<td>• More focus on the state-of-the-art and proof of concept</td>
<td></td>
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<tr>
<td>• Short explanations</td>
<td>• Shorter writing and more precise information</td>
<td></td>
</tr>
<tr>
<td>• Lack of tangible previous results specification</td>
<td>• Better guidelines on how to understand the scope of the call</td>
<td></td>
</tr>
<tr>
<td>• Repetition of already researched areas</td>
<td>• Having the practical experience and know how in the field</td>
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</table>

ESRs analysis

**General observations based on ESR analysis:**

- Surprisingly, a large proportion of shortcomings were due to carelessness, which most probably were due to last minute submission/hurry or rush. Here come some examples: Carefully read the call text, related documents and forms – e.g. avoid simple mistakes as using a wrong template, do not ignore required aspects (e.g. gender issues, involvement of specific partners, attaching required consent/support letters etc.). Also other common mistakes are incompleteness between Work Packages (WPs), only one of the expected impacts is addressed but not all, repeated activities in several WPs etc. This kind of mistakes would be the easiest to avoid and save unnecessarily lost points, therefore it is very important to start proposal preparations as early as possible.
- Demonstration of coordinator’s reliability was brought out in many ESRs. It shows that it is very important to carefully choose your consortium’s coordinator and there should be some extra information provided about the background and previous activities of this organisation/partner (in the template - full proposal/2nd stage – part 3 “Implementation”).
- It is better to provide more explanation, but at the same time keep a very clear focus of your project. If the focus is too wide and superficially presented, there is a great risk that it is not sufficient/convincing for the evaluator and as it is not possible to ask questions or give additional explanations it can be seen as a major shortcoming. The evaluator has to get everything at once from the proposal.
- All the numerical values should be supported by references, otherwise these are not convincing. Simultaneously try to keep the plane format (e.g. avoid too many footnotes).

**Main weaknesses highlighted by Evaluators**
Thank You