

Turkey in Horizon 2020 Phose Il Focused Group Training on: H2020 Green Deal Call Energy and transport topics (2,3,4,5)



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03-04/11/2020

Focus Group Training on Green Deal - Areas 2,4,5 Understanding the basics behind H2020 Green Deal funding opportunities in Energy and Transport (Chaired by Grigoria Chatzikostas)

| Description | Duration | Time |
|--|------------------------|---------------|
| Introduction to the H2020 Green Deal Energy and Transport call topics and how to read a work program | ^v 30 Min. | 11:30 – 12:00 |
| Detailed presentation of GD calls (RIA, IA, CSA), (Key words, EC expectations, TRLS required, their challenge, scope, expected impact, type of actions) | 50 Min. + 10MIN. QA | 12:00 – 13:00 |
| Lunch break | | 13:00 – 13:40 |
| How to write part per part the EXCELLENCE section in an H2020 Energy and Transport grant application with emphasis on examples from winning projects | 50 Min. + 10MIN. QA | 13:40 – 14:40 |
| How to write part per part the IMPACT section in an H2020 Energy and Transport grant application with emphasis on examples from winning projects | 50 Min. + 10MIN. QA | 14:40 – 15:40 |
| Coffee Break | | 15:40 – 16:00 |
| How to write part per part the IMPLEMENTATION section in an H2020 Energy and Transport grant application with emphasis on examples from winning projects | 50 Min. + 10MIN. QA | 16:00 – 17:00 |



Add profile section -



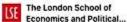


Experience

REM







About

Contact info

Juan Manuel Espeche

Head of Innovation Division at R2M Solution Spain

Madrid, Community of Madrid, Spain . 500+ connections .

Experienced Innovation & Project Coordinator with a demonstrated history of working in the renewable energy and smart grids Research, Development and Innovation fields. Skilled in Management & Coordination by successfully leading international projects with consortiums composed by multiple private and public entities.



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www.twitter.com/ok_jm



Head of Innovation Division @R2M Solution Spain

Apr 2017 - Present - 3 yrs 8 mos Madrid y alrededores, España

■Project Coordinator

Senior Project Manager

Smart Grids, Reflewable Energy

commercial sation plans to boost project results

Project Manager | IT Smart Energy

performance evaluation and energy system planning

Telecom Italia 2013 - 2015 - 2 yrs

Turin Area, Italy

H<STIA TO

Business Development Manager | Official distributor

2015 - Apr 2017 - 2

Milán y airededores, l

EU countries

R2M Solution



Leading a consortium of 10 companies, formed by large enterprises, SMEs and RTOs from 7

■ Creation of startups and management strategies for the company and its new business lines ■ Managing a portfolio of different initiatives across multiple innovation business ar ...see more

Planning, management, and financial control of the development of projects on Smart cities.

■ Techno-economic assessment of innovative solutions to develop business models and

Assist the company in acquiring new customers, identifying new sales leads, pitching

Leading meetings and supporting through techno-economic analysis to the top Italian

 Communication functions at all levels of the network, in particular in remote monitoring ■Test and validation of the network access gateways for residential consumers. Processing skills for the modular development of systems for design, innovation,

architecture firms (Lombardini22, Progetto CMR, Mario Cucinella Architects, Genera ...see more

products and/or services and maintaining fruitful relationships with customers

- Developing project management plans, ensuring the use of resources and its allocation, addressing the deviations or critical issue and ensuring the overall delivering of the consortum

with high quality on time within budget and scope of a 4M@project





Self-Sustainable Island Communities















The London School of Economics and Political Science (LSE)

MBA Essentials, Business Administration and Management

- Identify and maximise your organisation's strategic competitive advantage as you develop your understanding of the strategic environment and the market you operate within
- Analyse and optimise the performance of a business using technical business and accounting tools
- Use human behaviour insights and leadership frameworks to influence decisions at all levels. of your organisation, and externally with investors and consumers, through greater knowledge of human behaviour and decision making processes

Instituto Universitario de Investigación Mixto CIRCE - Universidad de Zaragoza

Specialization, Renewable Energy Grid Integration and Smart Grids

- Development of projects and studies for installations feasibility or renewable generation. integration into the present grid and the future distributed generation grid.
- Knowledge of the potential uses that electronic and communication applications bring to distributed generation. Analyse of development possibilities in global and local scale.
- Regulations in renewable energies and distributed generation and how to apply laws and standards referred to the grid connexion.
- Apply and develop R&D&i projects and/or make investments in this sector, knowing the main. enterprises, working groups and associations to collaborate with,



Hanzehogeschool Groningen / Hanze University of Applied Sciences Groningen Master's Degree, Renewable Energy- Specialization on Smart Grids

■Able to present a reflective attitude towards the possibilities and limitations of the scientific methods used and to make meaningful contributions to the energy debate.

Able to integrate renewable energy sources into a flexible, distributed energy system, interpret the impact on policy making of regional, national and international factors, apply the principles of integrated storage techniques, analyse and improve the energy efficiency of production chains, evaluate a certain integrated system, assess environmental costs and

economic and political policy

CREATORS



















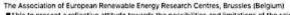












Is familiar with the international institutions and knows their importance for a social,

Show 2 more education ~

From Research to Market

R2M Solution

Founded 2012

People **60** 5 branches

Research
57
EU projects

Funds raised
317 M
Total R&D
Portfolio

Funds raised
21.3 M
Client technology
Development

First time EU **34** Organizations



R2M Solution in the world

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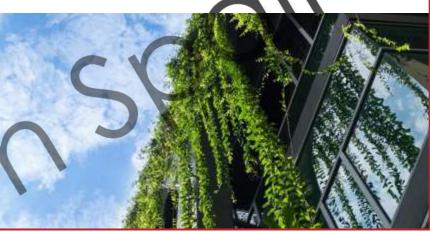
R2M Solution Spain, S.L. Calle Villablanca 85 28032 Madrid, España VAT N° ES B87348470

Italy (Headquarters)

R2M Solution S.r.I. Via F.IIi Cuzio 42 27100 Pavia, Italy P.IVA: IT04998380879 Innovation Consulting



Sustainability Consulting



Innovative Products



ESCO and Smart Grid



The program Horizon 2020 Horizon Europe

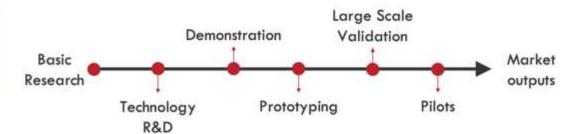
- € 80 billion of financing in 7 years (2014-2020)
- Strong involvement from industries and PMI
- Focus on innovation and impact on jobs, sustainable growth and social progress

 Complex and competitive (financed only 5-20% of the presented projects)



 Growth Capital Early Stage VC -Succeed "Valley of Death" Net cash Fail flow Time Working Product/ Systems & Market Fit Prototype Process to scale Horizon 2020 FP7





€100 billion of investment

Our specializations on research Horizon 2020

Energy Efficiency & Renewables

- Demand response
- Renewable energy systems

20 EU Research Projects

Digital & Sustainable buildings

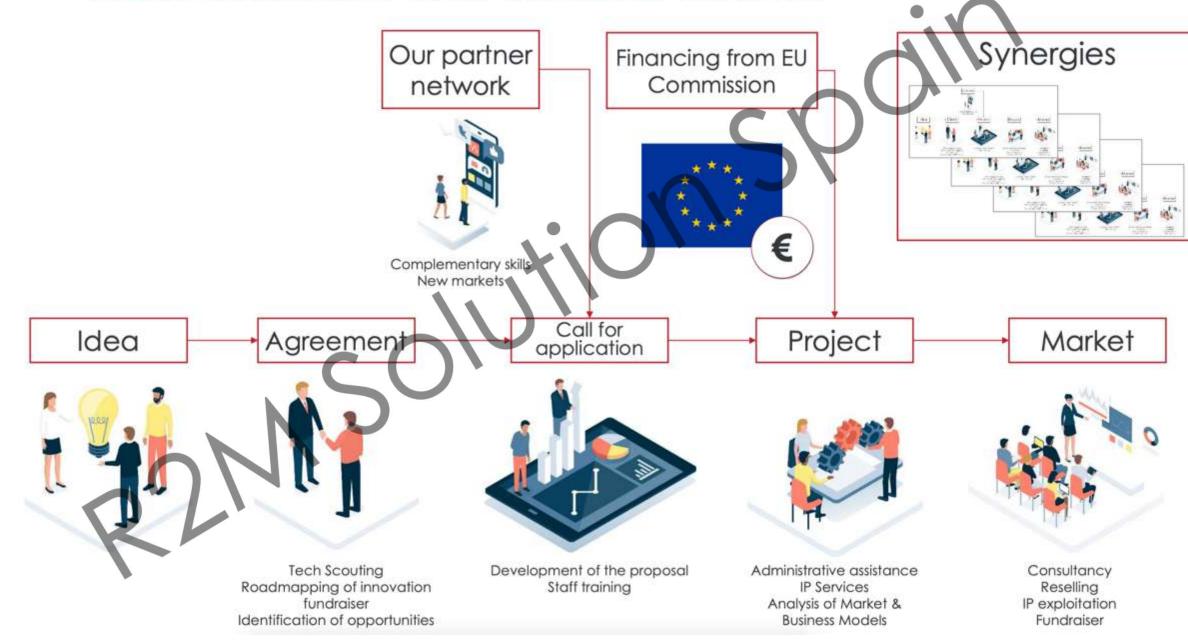
- Digital Twins
- Building retrofitting & maintenance
- 9 EU Research Projects

Energy management in geographical Islands
3 EU Research Projects

4 Smart Cities
2 EU Research Projects

5 ICT & Robotics 4 EU Research Projects

How to enter this virtious circuit





Description Duration Time

Introduction to the H2020 Green Deal Energy and Transport call topics and how to read a work program

30 Min. 11:30 – 12:00



Commission Priorities for 2019-2024



A Union that strives for more

A European Green Deal

A Europe fit for the digital age

An economy that works for people

A stronger Europe in the world

Promoting our European way of life

A new push for European democracy

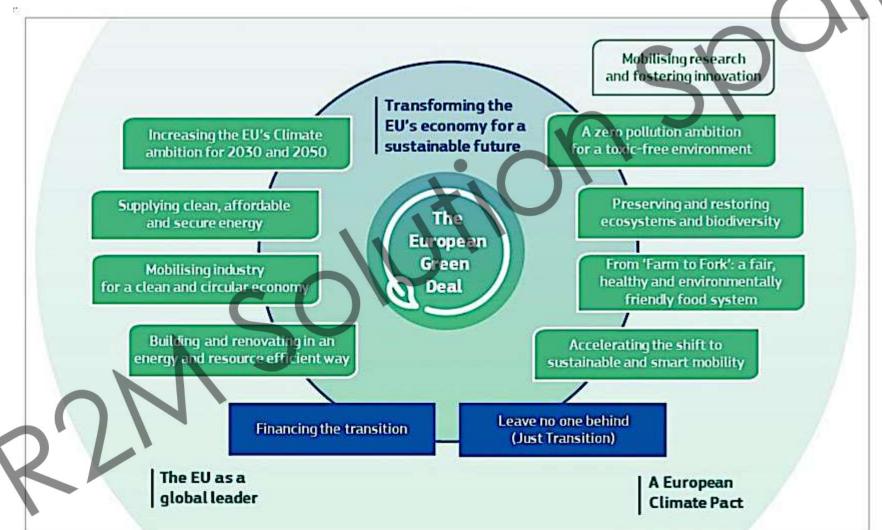
The European Green Deal

- Climate change and environmental degradation are an existential threat to Europe and the world. To overcome these challenges, Europe needs a new growth strategy that will transform the Union into a modern, resource-efficient and competitive economy, where:
 - There are no net emissions of greenhouse gases by 2050
 - Economic growth is decoupled from resource use
 - No person and no place is left behind
- The European Oreen Deal is our plan to **make the EU's economy sustainable.** We can do this by turning climate and environmental challenges into opportunities, and making the transition just and inclusive for all.

The European Green Deal

- The European Green Deal provides an action plan to:
 - Boost the efficient use of resources by moving to a clean, circular economy
 - Restore biodiversity and cut pollution
- The plan outlines investments needed and financing tools available. It explains how to ensure a just and inclusive transition.
- The EU aims to be climate neutral in 2050. We proposed a European Climate
 Law to turn this political commitment into a legal obligation.
- Reaching this larget will require action by all sectors of our economy
- Just Transition Mechanism: The EU will provide financial support and technical assistance to help those that are most affected by the move towards the green economy.

The European Green Deal



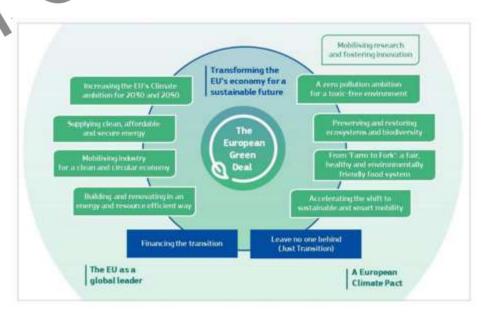


- €1 billion investment to boost the green and digital transition.
- · Launched in 2020, before the start of Horizon Europe:
 - Pressing need to confront the climate crisis and provide greater protection for the continent's unique environment and biodiversity.
 - Aiding Europe's recovery in the wake of the Covid-19 crisis, contributing directly to the EU's Recovery Plan for Europe.

- Importance of **research and innovation** in shaping the transitions required by the European Green Deal, providing clear, discernible results in the short- to medium-term:
 - The development of new technologies) sustainable solutions and disruptive innovation is critical to achieving the objectives of the European Green Deal.
 - R&I as key enabler that can drive, navigate and accelerate the transformative Green Deal agenda.
- The Call addresses the main priorities of the European Green Deal + its proposed topic areas match those for the green recovery, which are part of the Recovery Plan The EGD call can be identified as a key instrument and first R&I tangible action to deliver on the Commission's (green) recovery actions.

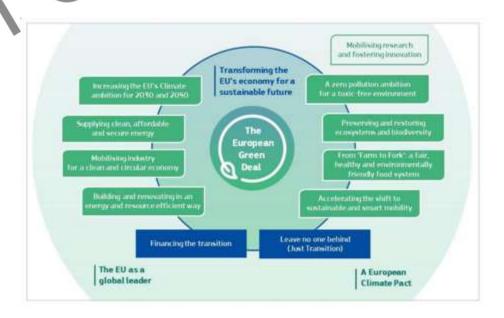
- Green Deal Call aims for clear, discernible results in the short to medium- term, but with a perspective of long term change. There are fewer, but more targeted, larger and visible actions, with a focus on rapid scalability, dissemination and uptake.
- The Call has been structured to reflect explicitly the priorities of the European Green Deal. It contains 20 topics, which are distributed in 10 thematic areas.
- The first eight areas correspond exactly to the eight work streams of the European Green Deal. These areas are complemented by two horizontal areas.

| Areas | Topics | | | | | |
|---|--|--|--|--|--|--|
| Thematic | | | | | | |
| Increasing climate ambition: cross sectoral challenges | Preventing and fighting extreme wildfires with the integration and demonstration of innovative means Towards climate-neutral and socially innovative cities Climate-resilient innovation packages for EU regions | | | | | |
| 2. Clean, affordable and secure energy | 2.1. Innovative land-based and offshore renewable energy technologies and their integration into the energy system 2.2. Develop and demonstrate a 100 MW electrolyser upscaling the link between renewables and industrial applications 2.3. Accelerating the green transition and energy access partnership with Africa | | | | | |
| Industry for a clean and circular economy | 3.1. Closing the industrial carbon cycle to combat climate change 3.2. Demonstration of systemic solutions for the territorial deployment of the circular economy | | | | | |
| 4. Energy and resource efficient buildings | 4.1. Building and renovating in an energy and resource efficient way | | | | | |
| 5. Sustainable and smart mobility | Green airports and ports as multimodal hubs for sustainable and smart mobility | | | | | |
| 6. Farm to fork | 6.1. Testing and demonstrating systemic innovations for sustainable food from farm to fork | | | | | |
| 7. Biodiversity and ecosystems | 7.1. Restoring biodiversity and ecosystem services | | | | | |
| 8. Zero-pollution, toxic-free environments | 8.1. Innovative, systemic zero-pollution solutions to protect health, environment and natural resources from persistent and mobile chemicals | | | | | |
| | 8.2. Fostering regulatory science to address chemical and pharmaceutical mixtures: from science to evidence-based policies | | | | | |





| Areas | Topics |
|----------------------------|--|
| Horizontal | |
| 9. Strengthening knowledge | 9.1. European Research Infrastructures' capacities and services to address European Green Deal challenges |
| | 9.2. Developing end-user products and services for all stakeholders and citizens supporting climate adaptation and mitigation |
| | 9.3. A transparent and accessible ocean; towards a digital twin of the ocean |
| 10.Empowering citizens | 10.1. European capacities for citizen deliberation and participation for the Green Deal. |
| | 10.2. Behavioural social and cultural change for the Green Deal |
| | 10.3. Enabling citizens to act on climate change and environmental protection through education, citizen science, observation initiatives, and civic involvement |





- Thematic areas: Actions with a relatively short term perspective with a clear 'impact-focused' approach. They support the development of ideas into pilot applications and demonstration projects, innovative products, experiments and approaches, able to show their value in practice and be ready for further scale-up.
- Horizontal areas: longer term perspective in support of the transformations required by the European Green Deal. These areas will strengthen our knowledge capacity and will lead to experimentation and social innovation for new ways to engage civil society and empower consumers.



Detailed presentation of GD calls (RIA, IA, CSA), (Key words, EC expectations, TRLS required, their challenge, scope, expected impact, type of actions)

50 Min. + 12:00 - 10MIN. QA 13:00

Main H2020 Financing Instruments

- Research and Innovation Action (RIA)
- Innovation Action (IA)
 Coordination and Support Action (CSA)
- European Innovation Council Accelerator
- Fast Track to Innovation Pilot

Research & Innovation Action (RIA)

- Objective: Funding for research projects tackling clearly defined challenges, which can lead to the development of new knowledge or a new technology.
- May include fundamental or applied research, technological development and integration, testing and validation of a small-scale prototype in a laboratory or simulated environment.
- Financing: Up to 100% of eligible costs
- Eligibility criteria: Three legal entities independent, established in 3 Member States or countries different associates.

Innovation Action (IA)

- **Objective:** Funding is more focused on **closer-to-the-market activities**. For example, prototyping, testing, demonstrating, piloting, scaling-up etc. if they aim at producing new or improved products or services.
- Financing: Up to 70% of eligible costs (up to 100% for non-profit organizations)
- **Eligibility criteria:** Three legal entities independent, established in 3 Member States or countries different associates.

Coordination and Support Actions (CSA)

• Objective: Accompanying measures such as standardization, dissemination, awareness and communication, creation of networks, coordination or support services, policy dialogues and exercises and learning studies mutual, including design studies of new infrastructures and can also include activities complementary strategic planning, creation of networks and coordination between programs in different countries.

- Financing: Up to 100% of eligible costs
- Eligibility criteria: A legal entity established in a Member State or associated country.

EIC Accelerator

The SME Instrument was replaced by EIC Accelerator. EIC accelerator began in the call in Oct 2019. Key changes:

- Only one step (there is not going to be Ph1 and ph2 anymore. Phase 1 is removed).
- The biggest novelty is that applicants can choose between only grant (up to 2.5MM€, like SME Inst ph2) or blended finance (grant+equity). The maximum equity will be 15MM€.
- Likely the the European Investment Fund will create a pot for financing < 25% of equity up to 15MM€

Fast Track to Innovation (FTI)

• **Description:** Small collaborative projects (3-5 partners and about ≈2*M* € EC requested) with the idea of bringing an innovative and multidisciplinary solution to market in less than 3 years. No investigation, but innovation, development, integration, validation and real-scale testing, Approach to the market (end user). Important business weight.

Start TRL ≥ 6 Final TRL = 9

- Financing: Up to 70% of eligible costs (100% for non-profit entities)
- Eligibility criteria: Any public or private participant. At least 3 entities established in 3 Member States of the EU or different associates. At least 60% of the budget allocated to industry. Coordinator NO startup (economic validation).

NB: 3 closing dates per year. Consult the work program.

Today we will focus on RIAs, IA and CSAs

RIA: 100% funded

IA: 70% funded

TRL 1-2 Principles formulation TRL 3-4
Proof of
concept and
validation

TRL 5-6
Validation in real environment

Prototype demo and completion

TRL 9
Proven and operational

Basic Research

Applied Research

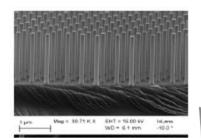
Prototype

Scale-up

Pilot

Demonstration

Deployment



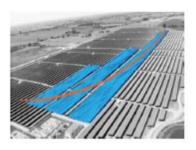
NanoWire based tandem PV cells



NextBase Interdigitated backcontacted silicon heterojunction solar cells and modules



PVSITES
Building Integrated PV
technologies and
systems for large-scale
market deployment



PV FINANCING Innovative business models and financing schemes for PV systems

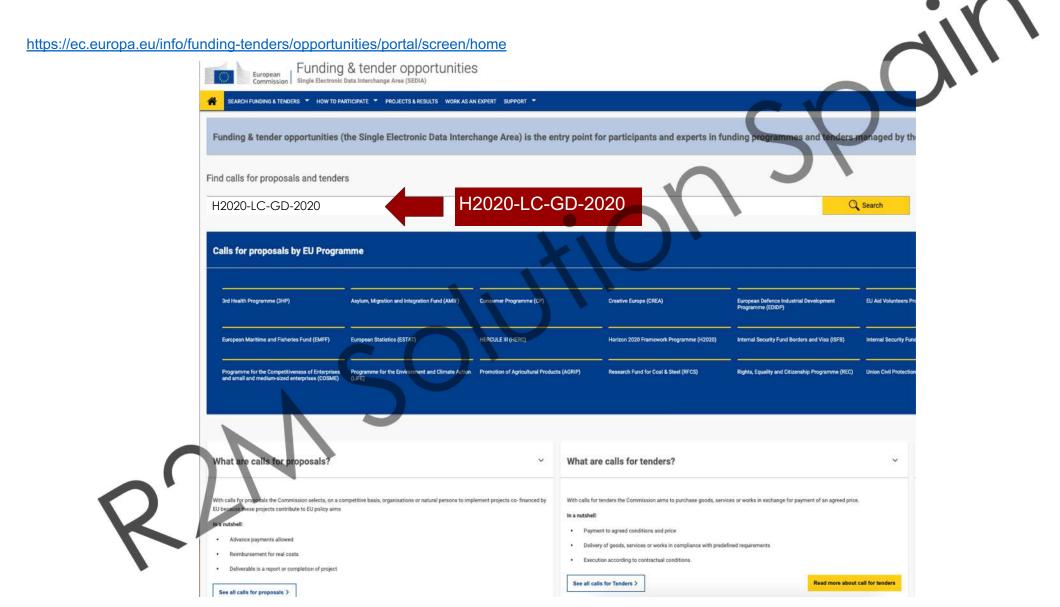
Coordination and Support Actions (CSA): coordination and networking of research and innovation projects

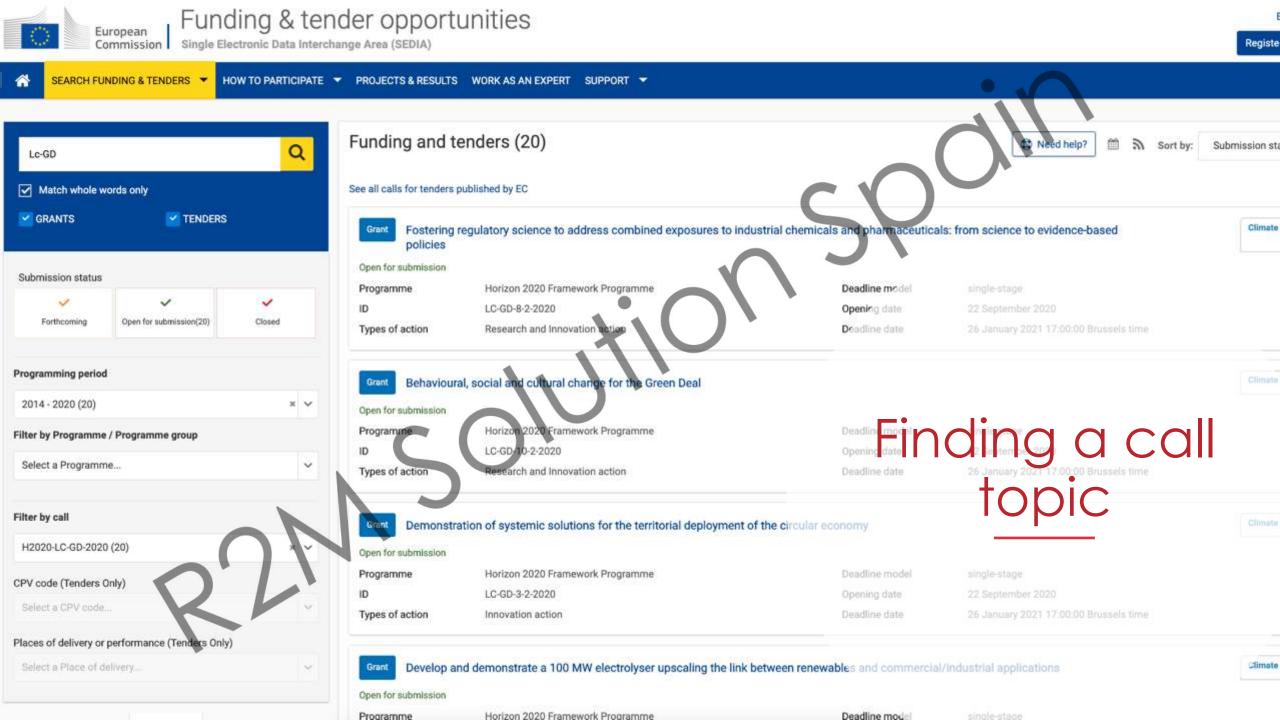
25% flat rate for indirect costs

Funding rates at glance

| Project type | Direct costs (€) | Indirect costs (€) | Total costs (€) | Funding rate | Grant amount (€) |
|---|---------------------|-----------------------|--------------------|-----------------|---------------------|
| Research and Innovation Actions (RIA); | 100,- | 25,- | 125,- | 100 % | 125,00 |
| Coordination and Support Actions (CSA) | , | | , 23, | 100 % | , |
| Innovation Actions (IA) - regular rate | 100,- | 25,- | 125,- | 70 % | 87,50 |
| Innovation Actions (IA) - rate for non-profit organisations | 100,- | 25,- | 125,- | 100 % | 125,00 |

Finding a call topic







H2020 Green Deal funding opportunities in Energy and Transport

Deadline: 26–01-2021 – 17.00 hrs BXL time

2.1 Innovative land-based and offshore renewable energy technologies and their integration into the energy system

=> Subtopic 1: land-based renewable energy

<u>Challenge</u>

- COM has published in July 2020 the "EU Strategy for Energy System Integration" – COM2020(299)
- Renewable energy-based systems for district heating and cooling (DHC) and for cogeneration of heat and power (CHP) can play a key role in energy system integration
- R&I are necessary to develop the renewable energy-based DHC and CHP systems of the future that are secure, costeffective, affordable and robust to renewable energy fluctuations
- **Digital solutions** can be an important enabler for the operation of multi-source DHC and CHP networks





2.1 Innovative land-based and offshore renewable energy technologies and their integration into the energy system

=> Subtopic 1: land-based renewable energy

<u>Scope</u>

Develop innovative solutions for either

- District heating and/or cooling systems (DHC) or
- Cogeneration of heat and power (CHP)

which allow satisfying a significant or total share of the energy demand combining different renewable energy sources

For DCH systems it can be considered:

- sources of excess heat or cold
- interfacing with existing heating or cooling distributionnetworks

For CHP solutions:

- minimum capacity of power supply → 2,5 MW
- electrical efficiency expected to go well beyond the state of the art





2.1 Innovative land-based and offshore renewable energy technologies and their integration into the energy system

=> Subtopic 1: land-based renewable energy

<u>Scope</u>

- Projects should combine at least two or more renewable energy sources and/or two or more renewable energy technologies
- Projects should assess the sustainability of the solutions in environmental, social and economic terms and should also take into account the requirements of the final users
- To ensure a balanced portfolio, at least the highest ranking proposal addressing CHP and DHC will be funded
- Bring the solutions to TRL 4-5 (RIA) (technology validated in lab-technology validated in relevant environment)
- Size of projects: 3-6 M€
- Total budget of the subtopic: 18 M€





=> Subtopic 1: land-based renewable energy

Impact

- Bring clear benefits in terms of reducing greenhouse gas emissions, air pollutants emissions and the use of fossil fuels
- Demonstrate that an affordable, reliable, secure and flexible DHC and/or CHP systems based on onshore, local renewables can be designed to be adaptive and scalable according to the energy demand





- 2.1 Innovative land-based and offshore renewable energy technologies and their integration into the energy system
- => Subtopic 2: offshore renewable energy

Challenge

- COM strategy "A Clean planet for all" → offshore renewable a key energy system for the Clean Energy, Transition
- Offshore wind capacity from 22 GW today to 240-440 GW by 2050
- Other offshore renewables follow a more modest scenario
- Modern infrastructure required to integrate the power of offshore resources in the energy system via the grid to onshore or via the option of power-to-X
- Need for technologies using wind, solar, wave and/or tidal resources, considering the potential of the different sea basins





=> Subtopic 2: offshore renewable energy

<u>Scope</u>

Demonstrate at sea offshore renewable energy innovations

 Offshore renewable energy power generating systems: offshore (floating) wind, wave, tidal and/or solar systems, on a floating or fixed-bottom substructure, considering the varied subsea and metocean conditions

And/or

 Grid Infrastructure: real life demonstration of DC, AC/DC hybrid technologies, inter-device/inter-array cables and connections to converter stations at sea or offshore hubs

May also include:

- Power to X/battery/storage systems to increase the resilience
- ✓ **To ensure a balanced portfolio**, at least the highest ranking proposal addressing <u>Offshore renewable energy power generating systems</u> and the highest ranking proposal addressing <u>Grid Infrastructure</u> will be funded





=> Subtopic 2: offshore renewable energy

Scope

Proposals should also address:

- Industrial design and manufacturing processes, circularity of (critical) raw materials, scalability, installation methods, transport, operation&maintenance, supply chains and digital infrastructures
- Regulatory, market and financial challenges
- Marine spatial planning, barriers such as costs, public acceptance and vulnerability to changing climate change conditions, consider needs, values and expectations of society
- Demonstrate the technologies at sea while respecting existing environmental regulatory framework
- Present an environmental monitoring plan to be implemented during the demonstration action





=> Subtopic 2: offshore renewable energy

<u>Scope</u>

The project has:

- to include a clear go/no go moment ahead of entering the deployment phase
- to deliver, before this moment, the detailed engineering plans, a complete business and implementation plan and all needed permits for the deployment
- to demonstrate how it will get a financial close for the whole action
- Bring the demonstrated technologies to TRL 7 (IA) (system prototype demonstration in operational environment)
- Size of project: 20-35 M€
- ■Total budget of the topic: 68 M€





=> Subtopic 2: offshore renewable energy

<u>Impact</u>

- Demonstrate all potential impacts on the future roll-out of large-scale deployment of offshore renewable energy
- Demonstrate the market perspective considering existing or alternative (decentralised) systems and all other environmental (like GHG reductions), ecological, social and economic impacts along the value chain
- Increase incentives for investment and economies of scale in offshore bringing down costs and create new business models an services

Check "Call Conditions" p. 154-161 del WorkProgramme





<u>Challenge</u>

- COM strategy "A Clean planet for all" → role of hydrogen in decarbonising
 - hard-to abate sectors, such as industry, cement, steel
 - heavy duty and long distance transport
- Technology is only available at multi-MW scale (20 MW) → need to produce hydrogen at larger scale
- To develop larger modules to be assembled into a 100 MW electrolyser, tested and demonstrated in real life conditions
- The system will provide grid-balancing services and supply renewable hydrogen to a commercial/industrial application
- Collaboration with JRC in test methodologies, protocols and procedures for the performance and durability assessment of electrolyser components





<u>Scope</u>

Develop, install and operate a 100 MW electrolyser to produce renewable H2, as energy carrier or as a feedstock

The main activity will consist of:

- Development, installation and operation of a 100 MW electrolyser
- Demonstrate the increased usage and economic impact of RES mix
- Operation of an electrolyser system in real life conditions in an industrial or port environment
- Investigate possibility to make use of rejected heat or vented Oxygen
- Operating pressure should be suitable for the application & any buffering/compression requirements





Scope

Other activities:

- Demonstration of the future economic viability of the technology depending on cost of electricity and hours of operation
- Reduce footprint and address healthand safety issues
- Evaluation of the environmental performance of the system, in terms of GHG emissions reduction and of water consumption
- Evaluation of other ecological and societal benefits along the value chain





<u>Scope</u>

Mandatory knowledge sharing activity:

- Organise 3 workshops outside the beneficiary's main implantation
- Information (like reporting on impact indicators) and disseminationactivities through cooperation with other projects in the context of this call (reserve a small part of their funding for such cooperation)

Due to the nature of the developments that undertake innovation activities in a market environment, **fundingrate is reduced to 50%**

- Projects should have a duration of 5 years, with at least 2 of operation
- Grid connection, building and the electricity costs for the commissioning phase are eligible for funding





<u>Scope</u>

The project has:

- to include a clear go/no go decision ahead of entering the deployment phase
- to deliver, before this moment, the detailed engineering plans, a complete business and implementation plan and all the required permits for the deployment
- From TRL 6/7 to TRL 8 (IA)
- Size of project: 25-30 M€
- Total budget of the topic: 60 M€





Impact

Technological impacts

- Establish a European value chain (modules and balance of plant for managing power, water, Hydrogen and Oxygen flows)
- Increase the efficiency of the electrolyser reachingan energy consumption of 49 (ALK) to 52 (PEM) kWh/kg H2 at nominal power
- Increase the current density to at least 0,5 A/cm2 (ALK) or 3 A/cm2 (PEM) and delivery pressure to 30 bar
- Reduce the plant's footprint by 30% thanks to larger modules and the plant layout as well as higher current densities
- Reduce the electrolyser CAPEX by 20% down to EUR 480/kW and EUR 700/kW for Alkaline and PEM electrolysers respectively
- Increase the stack lifetime with a degradation target (minimum nominal energy consumption at end of life) of 0.12%/1000 hours for Alkaline and of 0.19%/1000 hours for PEM
- Improve the overall efficiency valorising also by-product heat





Impact

Operational and environmental impacts

- Demonstrating operation of 100 MW electrolysis and the use of the hydrogen in an application valorising its renewable character
- Assessment of the contractual and hardware arrangements to distribute and supply H2 to the industrial and/or transport market
- Assessment of feasibility to connect the electrolyser to a production site of renewable sources of energy (wind, solar)
- Technical assessment of the suitability of the electrolyser to operate in its expected environment
- Evaluation of the environmental performance of the system with attention to the CO2 intensity of the H2 produced
- Evaluation of other ecological and societal benefits along the value chain





Impact

Cost competitiveness impacts

 Demonstrate a compellingeconomicand environmentalcase, for applications such as transport, energy storage, raw material (hydrogen and oxygen) or heat and power production

For a LCOE of up to EUR 40/MWh (renewable sources), achieve a significant cost reduction of green hydrogen compared to the price at the time of proposal submission striving for below EUR 3/kg and aim for further reductions

End study impacts addressed directly to the COM

- Assessment of the legislative and Regulations, Codes and Standards implications of these systems and any issues identified in obtaining consents to operate the system
- Recommendations for policy makers and regulators on measures helping to maximise the value of renewable energy





Check "Call Conditions" p. 154-161 del WorkProgramme

<u>Challenge</u>

- This action responds to the Joint Communication for a Comprehensive Strategy with Africa adopted on 9/3/2020
- It will contribute to the present R&I Partnership on Climate Change and Sustainable Energy of the EU/AU High-Level Policy Dialogue on Science, Technology and Innovation
- The aim is to support the development of sustainable energy solutions appropriate to the African context
- The African continent has an enormous renewable energy potential
- The adoption of renewable energy solutions will support Africa in achieving sustainable development growth and economic transformation



<u>Scope</u>

Demonstrate innovative **sustainable energy solutions that consider climate adaptation and mitigation potential** compared to other technologies/solutions in the African social, economic and environmental contexts. Solutions may address:

- development of renewable energy sources, including solutions for offgrid communities, and their integration into existing energy systems, considering the generation of renewable energy, the transmission and the use of storage/battery systems
- energy efficiency
- Solutions should consider both urbanised and rural contexts and the ongoing water-energy-food nexus action
- ✓ With the aim of providing sustainable energy access (electricity/cooking) and/or creating improved health, economic wealth and jobs (productive use of energy/energy efficiency)



Scope

- Actions should design, construct, commission and operate the demonstration installation
- Actions should identify the most suitable manufacturing value chains, on the basis of the local context, local material supply chain(s) and local workforce
- Actions should include the identification of technical, vocational and educational needs of the workforce and propose training and qualification activities
- Actions should define a market and business strategy to ensure impact through a quick and viable commercial take-up of the technological solution demonstrated



<u>Scope</u>

- Proposals should include a life cycle analysis showing the impact of the proposed solutions compared to other technologies/solutions on the environment, on climate change targets and on the social and the economicdimensions
- Proposals should consider adopting a circular economy approach, where relevant
- As the demonstration installation will be located in Africa, relevant African partners have to participate in the project (at least two partners from at least one African country)



Scope

- Copernicus data and products (focussed on available hydro, wind, solar or marine energy resources) may also support life cycle analysis to evaluate the impact on humans and on the environment (including biodiversity) of these new energy plants
- Actions should participate in and contribute to the EU/AU
 Partnership on Climate Change and Sustainable Energy, in
 particular through cooperation/collaboration with the project
 funded under the topic LC-SC3-JA-5-2020 "Long Term EU-Africa
 Partnership pf R&I action in renewable energy"
- Demonstration installation (IA)
- Size of project: 5-10 M€
- Total budget of the topic: 40 M€



<u>Impact</u>

Short-term impacts

- Technologically reliable and economically viable solutions
- Proven positive environmental, health, climate, social and economic impacts, by putting in place measures and mechanisms in line with the highest European Environmental and Social standards (see ESIA procedure) and taking into consideration the upcoming taxonomy principles
- Climate adaptation and climate mitigation potential of the solutions compared to other technologies/solutions
- Strengthening of the joint EU-AU Climate Change and Sustainable Energy Partnership efforts, with emphasis on improving the visibility of the EU Science Diplomacy actions in Africa



<u>Impact</u>

Medium-term impacts

- Creation of new market opportunities for both European and African companies on the African continent
- Technological uptake on the African continent
- Acceleration of the achievements of the African continent's targets of the Paris Agreement

Long-term impacts

11, 12 and 13

• Economic growth and job creation, both in the EU and in African countries

In addition, the proposed solutions are expected to evidence benefits to **contribute to the Sustainable Development Goals** 2, 4, 5, 6, 7, 8,

Check "Call Conditions" p. 154-161 del WorkProgramme

<u>Challenge</u>

 The priority is the design and construction of new or retrofitting of existing buildings as zeroemission/zero- pollution, positive energy-houses

Two major components in this transition:

- A transition in designing and constructing buildings to reduce their emissions and to increase the energy efficiency of their operation; the same for retrofitting existing buildings
- A transition to energy positive buildings (producing electricity, covering their heating and cooling needs and contributing to the energy grid stability) with renewable energy technologies



<u>Scope</u>

To deliver at least two (residential and non-residential, new and/or retrofitted) large scale, real-life demonstrations of promising technology, process and social innovation in different regions in Europe

- scalable design of green, positive energy neighbourhoods embedded in the context of the demonstration sites
- energy and resource efficient industrial construction/renovation workflows from design to manufacturing, installation and post-construction
- sustainable and highly energy efficient building designs adapted to local environment and climatic conditions
- zero-emission and cost and energy efficient renewable energy generation in the buildings combined with urban service facilities (e.g. charging facilities) and heatingventilation-air conditioning solutions



<u>Scope</u>

- Energy storage systems (e.g. Using second life batteries from electric vehicles) with bidirectional charging functionalities, that do not limit the use of living space
- Highly energy-efficient building operation at reduced maintenance costs and long-term performance, as well as digital solutions
- Citizens awareness raising activities to facilitate social innovation, promote education and training for sustainability conducive to good habits
- Coordination on standards and regulatory aspects to ensure operational efficiency of buildings and HVAC
- From TRL 5/6 to TRL 7/8 (IA)
- Size of projects: 10-20 M€
- ■Total budget of the topic: 60 M€
- Part B page limit: 100 pages



- IMPACT
- Primary energy savings triggered by the project (in GWh/year)
- Investments in sustainable energy triggered by the project (in million Euro)
- Demonstration sites that go beyond nearly-zero energy building performance
- High energy performance (nearly zero-energy level within the meaning of Directive 2010/31/EU)
- Reduction of GHG emissions towards zero for the total life-cycle
- Reduction of the embodied energy in buildings by 50%
- Reduction of air pollutants towards zero for the total life-cycle
- Demonstration of high potential for replicability (innovation clusters)
- Shortened construction/retrofitting time and cost by at least 30%
- Improved final indoor environment quality by at least 30%
- Include relevant indicators and metrics with baseline values



Check "Call Conditions" p. 154-161 del WorkProgramme

Challenge

THE EUROPEAN GREEN DEAL COMMUNICATION (DEC-2019)

- "Transport should become drastically less polluting"
- "Accelerating the shift to sustainable and smart mobility"
- "Ramp-up the production and deployment of sustainable alternative transport fuels"
- Aviation: "air quality should be improved near airports by tackling the emissions of pollutants by aeroplanes and airport operations"
- Shipping: "[the Commission] will take action in relation to maritime transport, including to regulate access of the most polluting ships to EU ports and to oblige docked ships to use shore-side electricity."

SECTORAL / POLICY PERSPECTIVE

- Decarbonisation progress in Road / Rail (e.g. electrification)
- Aviation: 14% of EU transport GHG emissions (rising), x2 traffic by 2050
- Shipping: 13% of EU transport GHG emissions (rising), 90% of global trade
- Further policy action foreseen in aviation and waterborne transport
- Significant and immediate impact required by 2025-2030

Proposed activities:

- Large-scale, real-life high TRL (6 or above) demonstrations of green airports, maritime and inland ports, of different sizes, across Europe
- Pilot/demo plants of zero-emission energy production and supply at airports and ports (electricity, green hydrogen, sustainable alternative fuels)
- Supply systems, storage, distribution and power/recharging/alternative re-fuelling infrastructure for aircrafts, ships and other vehicles / purposes
- Integration with green and smart operations and logistics, innovative construction, dredging, infrastructures, effective and green land/sea/river use
- Smart tools for optimisation of passenger/freight traffic flows into/out of airports and ports, from/to the city and for inter-modal connections/modal shifts
- Non-technological framework conditions, new multi-actor governance and investment analyses





Key features for Green Airports and Ports:

- Green energy production, distribution, supply
- Use of clean energy for transport and other purposes
- Green hydrogen, electricity, biofuels, sustainable alt. fuels
- Connected and automated vehicles, cranes, eta.
- Dynamic traffic optimization into/out of airport/port, from/to city or other nodes
- Smart operations, logistics, inter-modal connections/modal shifts
- Aviation, Maritime, Inland Waterway Transport
- Road, Rail, multimodal connections/modal shifts
- System-wide door-to-door multimodal mobility for passengers/freight
- Green logistics, infrastructures, energy-efficient buildings
- Links with cities, urban environment, urban mobility
- Biodiversity, circular economy, effective land/sea/river use





Specific conditions for each area:

A) Green Airports

 Actions should perform large-scale, real-life high TRL (6 or above) demonstrations of green airports, addressing all of the following four headings, collectively describing the various airport aspects to be considered: 1) Transport, 2) Terminal, 3) Energy and 4) Cross-cutting aspects

1. Transport

Actions should cover all of the following aspects: access and multimodal connections to the airport (e.g. from cities or other nodes); from the airport terminal to the aircraft (airside); at the airport landside (logistics, ground handlings and operations, as well as green energy production/supply of sustainable alternative fuels or electricity).

Actions should also cover at least three of the following, as appropriate:

- demonstrating low-emission energy use (electrification or sustainable alternative fuels) for aircraft, airports, other/connected and automated vehicles accessing or operating at airports (e.g. road vehicles, rolling stock, drones), as well as for public transport and carpooling, with recharging/re-fuelling stations and use of incentives;
- showcasing the use of innovative de-icing and anti-icing procedures and infrastructures;
- applying innovative digital and EU satellite-based solutions, including new tools and traffic optimisation mechanisms for multimodal access, passenger and freight flows into and out of the airport, as well as between airports, facilitating airport access and reducing traffic from/to the city or other nodes;
- promoting the development of production facilities for sustainable alternative fuels, as well as the necessary underlying infrastructure (for distribution, fuel handling logistics and blending operations) to facilitate the conversion of waste to sustainable alternative fuels and the delivery of the fuels to the airport, for small and medium airports, and scalable to large airports, therefore allowing deployment at a significant number of airports;
- promoting intermodal mobility (e.g. in the context of mobility/logistics as a service or transport-on-demand), including efficient rail interconnection solutions and innovative train-airport station concepts;
- conceiving, developing and preparing for future implementation of a new autonomous, integrated and operational EU Clearing House for Sustainable Kerosene (EU-CHSK). The EU-CHSK would undertake testing for new value chains of renewable kerosene in Europe, involving relevant laboratories for the analyses of fuels and facilities to carry out testing in jet engines, in compliance with existing or newly developed standards.



Specific conditions for each area:

A) Green Airports

2. Terminal

Actions should cover at least two of the following, as appropriate:

- demonstrating integration of new solutions with operations, green and smart logistics and infrastructures;
- developing the built environment (construction/demolition) using more ecologically-friendly materials and processes and incorporating these
 improvements in the procurement processes to sustainably decrease the ecological footprint;
- improving the energy efficiency of buildings; optimising services such as lighting, heating, natural ventilation and air conditioning (taking into account strict public health criteria), water/energy usage and efficiency;
- enhancing biodiversity, green land planning and use, as well as circular economy (e.g. repair, reuse and recycling of buildings and waste, in the context of zero-waste concepts).

3. Energy

Actions should cover at least two of the following, as appropriate:

- addressing the entire energy value chain from supply to use: demonstrating energy efficient facilities for green energy production (e.g. electricity, advanced biofuels, synthetic kerosene, mixture SAF/Jet A1, green hydrogen) to power/electrify the built environment and infrastructure, transport and airport ground operations;
- envisaging industrial scale pilot advanced biofuels refineries or retooling of existing fuel refineries, as a means of producing sustainable alternative fuels and generating additional heat and power in an efficient manner and minimal environmental impact;
- identifying effective incentives to address challenges in the sustainable alternative fuels system (e.g. fuel producers, fuel distributors, airport
 operators, airline operators) and promoting the penetration of sustainable alternative fuels within the aviation sector;
- assessing the scalability of solutions e.g. enabling sustainable alternative fuel producers to cover investment risks and promote advanced technology, while securing buy-in of end users (air operators).



Specific conditions for each area:

A) Green Airports

4. Cross-cutting aspects

Actions should cover at least three of the following, as appropriate:

- air quality (indoor, outdoor, including decontamination from microbiological pathogens) and noise trade-off;
- impact on the existing legal framework covering operational and environmental aspects, eco-labelling, certifications (robust certification and green standards setting) and measurement, reporting and verification (MRV);
- use of ICT and, among others, EU satellite-based solutions to effectively manage resources and assets, including management of information and production of knowledge, taking into account all the related safety and security aspects of the solutions developed and proposed;
- sustainable evolution of airports, also in the context of circular economy (e.g. activities linked to aircraft decommissioning and collection/sorting of recyclable waste), considering institutional and governance aspects, ownership, regulation, performance indicators and balance of force between regulators, airlines and airport operators;
- feasibility of a market-based instrument to prevent/reduce Food Loss and Waste (FLW) and to valorise a business case of transformation of FLW into new bio-based products. This includes FLW measurement and monitoring methodologies and the subsequent mapping of FLW total volume at stake in the considered airport;
- assessing non-technological framework conditions, such as market mechanisms and potential regulatory actions in the short and medium term, which can provide financial/operational incentives and legal certainty for implementing low-emission solutions;
- developing and promoting new multi-actor governance arrangements that address the interactions between all airportrelated stakeholders, including authorities, aircraft owners and operators, local communities, civil society organisations and city, regional or national planning departments.



Specific conditions for each area:

B) Green Ports



Actions should perform large-scale, real-life high TRL (6 or above) demonstrations of sustainable maritime and inlandports, addressing the first aspect below and at least five of the following ones:

- demonstrating integrated low-emission energy supply and production at ports (e.g. electricity, green hydrogen, advanced biofuels and bioliquids) and supply systems (on-shore or off-shore), with storage, distribution and power/re-charging/sustainable alternative fuel re-fueling infrastructure for ships and other vehicles operating at/to/from ports, as well as for other uses (e.g. port equipment/machinery, on-shore power supply systems for vessels mooring in the port, etc.);
- demonstrating sustainability and innovation beyond energy supply and demand at ports, particularly the integration with green and smart logistics
 and operations at/to/from ports, energy-efficient buildings, innovative construction, dredging and infrastructure activities, effective and green land
 use;
- demonstrating seamless and highly efficient logistics operations, for integrated sea/river-port-hinterland connections (e.g. between sea/river, rail and road), to enable modal shifts and system-wide door-to-door multimodal passenger mobility and freight transport;
- performing pilot activities to showcase the positive environmental effects of digitalisation (incl. EU satellite-based solutions) in ports, particularly with clean (e.g. electrified/hydrogen) connected and automated vehicles and cranes, as well as intelligent port systems and dynamic vessel traffic flows for improved routing and scheduling, to minimise ship time at port, enabling efficient and automated logistics chains and multimodal interconnections;
- delivering new tools and optimisation mechanisms for multimodal access, passenger and freight flows into and out of the port, as well as between
 ports, facilitating port access and reducing traffic from/to the city or other nodes;
- assessing non-technological framework conditions, such as market mechanisms and potential regulatory actions in the short and medium term, which
 can provide financial/operational incentives and legal certainty for implementing low-emission solutions (e.g. considering first-mover advantage, bestequipped-best-served principles and port market share effects);
- developing and promoting new multi-actor governance arrangements that address the interactions between all port-related stakeholders, including
 port authorities, ship owners, local communities, civil society organisations and city, regional or national planning departments, in order to accelerate
 the production and use of sustainable energy;

Specific conditions for each area:

B) Green Ports

delivering a Master Plan for the future Green Port, with a bold vision and a roadmap with milestones to achieve GHG neutral shipping and minimal
pollution in maritime and inland port areas (incl. ships in and approaching port) by 2030, 2040 and 2050; as well as addressing the associated
investment/cost implications (incl. operational and capital expenditures).

This master plan should also address:

- a wider socio-economic perspective, covering sustainable and smart mobility, technical, operational, economic, environmental and social aspects, relevant to shaping the green ports of the future and their integration with other sustainable transport modes, the hinterland, cities and urban mobility;
- solutions with the highest potential for emission reduction at ports, focusing on CO2 and noxious pollutant emissions (SOx, NOx and particulates), as well as water pollution and noise, but also on improving biodiversity, the soil and the aquatic environment, while considering climate change effects (e.g. sea/river-level rise, new tourism patterns, etc.);
- analysis of the various alternatives for the provision of power supply at the port, such as fixed land energy grid vs. mobile power production and supply (e.g. LNG generators/containers) and mobile storage, for instance through the use of barges or trucks bringing energy/batteries, etc.;
- assessment of whether existing fossil fuel, LNG or other/chemical infrastructures in the broader port areas could be used to facilitate the transition towards low-emission shipping and bunkering of carbon neutral fuels;
- a holistic sustainable port design concept, leveraging green construction, demolition and dredging activities, with energy-efficient or renovated buildings, optimising land and sea/river use, improving biodiversity and circular economy;
- scalable solutions that can be replicated/gradually scaled-up to larger or scaled-down to smaller ports, together with the demonstration of their environmental sustainability and technical, operational, and economic viability;
- governance, business, deployment models and plans, including internal/external costs;
- collaboration models across multiple stakeholders, paving the ground for large-scale deployment of the demonstrated innovative solutions across
 European ports;
- a comprehensive report of all project findings in detail, including the identified proposed suitable pathways for European ports to achieve GHGneutrality, by use of standardised tools for assessing the comparative emission reduction of different ports;
- a handbook on how to move from planning, to implementation, replication and scaling-up the deployment of the demonstrated solutions, for different sizes and locations of ports across Europe.



Action type: Innovation Action (IA)

Project duration: 4-5 years

Consortia: Including 1 leading "Lighthouse" and maximum 3 "Fellow" airports/ports

Evaluation: Potential funding for at least 2 proposals per area A) Green Airports, B) Green Ports

Budget: EUR 100 million overall – EUR 15-25 million per proposal



Read the call topic carefully

Demonstration of plug and play solutions for renewable off-grid electricity LC-SC3-RES-30-2019

Topic conditions and documents

1. Eligible countries: described in Annex A of the Work Programme.

A number of non-EU/non-Associated Countries that are not automatically eligible for funding have made specific provisions for making funding available for their participants in Horizon 2020 projects. See the information in the Online Manual.

2. Eligibility and admissibility conditions: described in Annex B and Annex C of the Work Programme.

Due to the specific challenges associated with this topic (in case of topic I C-SC3-FS-6-2019 this refers only to sub-topic 4) and the international focus of the Mission Innovation initiative, in addition to the minimum number of participants set out in the General Annexes, proposals shall include at least one participant from a non-EU/Associated country member of Mission Innovation (i.e. Australia, Brazil, Canada, Chile, People's Republic of China, India, Indonesia, Japan, Mexico, Republic of Korea, Saudi Arabia, United Arab Emirates, United States). Standard rules on eligibility for EU funding apply.

Proposal page limits and layout: please refer to Part B of the proposal template in the submission system below.

Evaluation Summary Report

Evaluation Result

Status: Ineligible



2018 Call

Total budget: € 10M

Proposal presented: **7**

Funded Proposals: O!!

Read the call topic carefully

Decarbonising energy systems of geographical Islands LC-SC3-ES-4-2018-2020

Proposals should include a task on the analysis of obstacles to innovation under the current context and foresee the coordination on policy relevant issues (e.g. regulatory framework, business models, data management, consumer engagement) with similar EU-funded projects through the BRIDGE initiative^[1]. An indicative budget share of at least 2% is recommended for the research work associated with these issues and an additional 2% for the coordination effort are recommended.

Criterion 3 - Quality and efficiency of the implementation

Score: <u>5.00</u> (Threshold: 3/5.00, Weight: -)

The following aspects will be taken into account:

Quality and effectiveness of the work plan, including extent to which the resources assigned to work packages are in line with their objectives and deliverables

The quality and effectiveness of the work plan is excellent.

The structure of the work packages is highly effective, logical and coherent with the objectives and deliverables. Task content is comprehensive and convincing, as it relates credibly to the objectives. Milestones are fully appropriate to allow effective monitoring of project progress. Deliverables are well formulated and totally appropriate in number and content. The distribution of resources in terms of personmonths (PM) and budget is fully in line with their objectives.

Coordination with similar EU-funded projects through the BRIDGE initiative is included under Tasks 8.6 (dissemination) and Task 9.3 (Coordination).

The proposal includes sufficient budget (4% of the total) envisaged for the research and coordination effort associated with obstacles for innovation. This is excellent. A specific task (8.4) in the work plan will establish synergies with the "Clean Energy for EU islands" initiative.

Familiarisation with key documents for preparing successful H2020 Energy proposals

Proposal Basics

PART A **ADMINISTRATIVE INFORMATION**

- General information
- Participant information
- Budget

PART B TECHNICAL INFORMATION

- in PDF format
- The sections follow the evaluation criteria
- Part B 70 pages long (sections 1-3)
- No page limits (sections 4-5)



1. General Information



This info is completed in the EU portal

The abstract is the key to catch the attention of the evaluator!.

Avoid copy and pasting directly from the proposal and using confidential information. Tell the evaluator **concisely** what are you objectives and how you want to achieve them and how they address the call topic

2. Participant information

Partner administrative information for H2020 Proposals

Aimed topic:

Please fulfil and send back to:

| Partner Short Name | R2M Solution Spain SL |
|--------------------------------------|-----------------------|
| PIC (Personal Identification number) | 926493949 |
| Profit or Non Profit? | Profit |
| Person Month cost (€/PM) | |

In case of not having a PIC or not remember it, please go to the following link to obtain one as it is mandatory to introduce your data in the system

- H2020 Online Manual: http://ec.europa.eu/research/participants/portal4/desktop/en/funding/guide.html
- Organisation Register: https://webgate.ec.europa.eu/cas/eim/external/register.cg

| Contact Point | | | | | | | |
|---------------------------------|---------------------|-------------------------|---------------------------|--------------|------|-----------------|--|
| Person in Charg | ge of the propos | sal | | | | | |
| Last name | | Espeche | | Gender | Male | | |
| First Name(s) | | Juan Manuel | | | | | |
| Title ¹ | | Mr. | | | | | |
| E-Mail | | juan.espeche@r2msol | ution.com | | | | |
| Position in the org | anisation | Innovation Manager | | | | | |
| Department/Facult tory name/ | ty/Institute/Labora | Innovation Division | | | | | |
| Phone number (1) | | +393881118128 | | Phone number | (2) | | |
| Fax number | | | | | | | |
| Web Page | | www.r2msolution.com | | | | | |
| | | Street name | Street name CALLE CERVERA | | | | |
| | | Number | 59 1D | | | | |
| Address (if differe address) | ent from the legal | Postal code / Cedex | 28033 | | | | |
| , | | Town | Madri | d | | | |
| | | Country | Spain | Ž. | | | |
| Other Contact F | Person | | | | | | |
| First Name | Raymond | | Last Na | me | S | terling | |
| E-Mail | raymond.s | terling@r2msolution.com | erling@r2msolution.com | | + | 34 622 73 80 61 | |
| First Name | | | Last Na | me | | | |
| E-Mail | | | | Phone | | | |

When coordinating a proposal you have 2 options:

- Ask each partner to fill in this info in the EU portal
- Send a template (usually asking also the partner description for Section 4-PART B)

2. Participant information (Part B) Don't exaggerate!

B - DESCRIPTION OF PARTICIPANT (Section 4-5)

| Partner | R2M Solution | Spain SL | | |
|------------|--------------|----------|-------|--------------------|
| Short Name | R2M | Туре | SME | |
| Role | Participant | Country | Spain | PESSARCH TO MARKET |
| Website | www.r2msolu | tion.com | | SOLUTION |

Brief Description

R2M Solution Spain SL. is an integrated and multi-disciplinary entrepreneurial innovation company that aggressively targets filling the gap between research activities and market implementation across the fields of Innovation, Engineering, Energy Services & Sustainability and ICT/Automation. R2M is a strategic innovator itself and as part of its business model helps organizations and projects plan and execute the strategic use research funding carried out over a comprehensive development strategy from idea to market. In doing so, R2M provides leadership, links high performance exploitation-oriented networks, and leverages public and private funding instruments.

In its sustainability consulting activities, R2M conducts ISO50001 consulting, LEED certification, sustainable design consulting for retrofits and new construction, renewable energy system design, building energy simulation, fault detection and diagnosis and IPMVP planning and assessment.

Main tasks and responsibilities within the project

Leader of WP8 - Exploitation activities and innovation manager

Main relevant networks and experience in National and European Projects

- Mas2tering, Multi-Agent Systems and Secured coupling of Telecom and <u>EnErgy gRIds</u> for Next Generation smart grid services. Multi-Agent-Systems underpinning a secure ICT platform for the Flexibility Management of the Smart Grid
- DR BOB, Demand Response in Blocks of Buildings. Demonstration of the benefits of demand response in blocks of buildings across building sites covering 274,665m2 involving 47,600 occupants
- Hit2Gap, Highly Innovative building control Tools Tackling the energy performance gap
 coupling monitoring data to modelling environments and fault detection techniques. New
 generation of building monitoring and control tools based on advanced data treatment
 techniques.
- PENTAGON (H2020): Unlocking European grid local flexibility trough augmented energy conversion capabilities at district-level. Innovating the local energy network through a decentralized grid management system and boosting the efficiency of the power to gas technology.
- DRIVE (H2020): Demand Response Integration technologies: unlocking the demand response potential in the distribution grid

Publications, services and patents related to the project

- Smart Grid Futures: Perspectives on the Integration of Energy and ICT Services by Monjur Mourshed, Sylvain Robert, Andrea Ranalli, Thomas Messervey, Diego Reforgiato, Régis Contreau, Adrien Becue, Kevin Quin, Yacine Rezgui, Zia Lennard. Volume 75, August 2015, Pages 1132–1137. Clean, Efficient and Affordable Energy for a Sustainable Future: The 7th International Conference on Applied Energy (ICAE2015)
- Use Cases and Business Models of Multi-Agent System (MAS) ICT Solutions for LV Flexibility Management by Juan Manuel Espeche, Thomas Messervey, Zia Lennard,

Sell your company, match it with your activities within the proposal.

Explain your role in the project

Show as much as possible that you have past experience and strong network in national and EU project related to the call topic

If you have publications, IP or commercial services related to the topic, here you can show them!

2. Participant information

Principal Team Members involved in the project

Mr. Juan Manuel Espeche (M) holds an MSc degree in Electronics and Telecommunications from Polytechnic of Turin (Turin, Italy) and a II MSc degree in Renewable Energy coordinated by the Association of European Renewable Energy Research Centers (EUREC). He has a specialization in Grid Integration and Distributed Generation from the University of Zaragoza, Zaragoza, Spain. During his specialization, he has worked on Smart Grids, Demand Side Management and Energy Efficiency. He worked in Telecom Italia as a telecommunication engineer, specialized in the test and validation field. He is a senior innovation engineer who leads the exploitation, business modelling and dissemination activities of research and innovation projects in different fields. He has actively participated in the creation of start-ups such as Think AM, R2M Energy, ProAir, TIFEO.

Dr. Raymond Sterling (M) has a double degree in Electrical (2009) and Systems (2008) Engineering from the Central University of Venezuela and University of Rome "La Sapienza", Italy, respectively obtaining first class honours are graduating as first of his class. He pursued and completed in 2010 a postgraduate Masters of Science in Intelligent Systems in the University of Salamanca, with a dissertation on Neural Network Control of HVAC Systems. Between October 2010 and February 2011 he participated in the traineeship program of the European Commission, providing technical and logistic support to the Industrial Technologies Directorate within the Research and Innovation Directorate General. Between September 2011 and May 2015 he pursued a PhD within the IRUSE group at NUIG being his research focus on the development of artificial intelligence based methodologies for control and decision support for energy efficiency in buildings. From June 2015 he has continued as a post-doctoral researcher within the IRUSE group focused on the development and implementation of energy management and decision support systems. From August 2015 he is office Direct of R2M Solution Spain as part of the innovation division team focusing on developing new research opportunities and new markets and services for R2M offerings.

Ms. Tatiana Loureiro(F), is a lawyer and holds a LL_M degree in European Union Studies from University of Salamanca, Spain, and a second LL.M. degree in Fundamental Rights from Universidad Carlos III, Madrid, Spain. She also holds a Postgraduate Certificate in Intellectual Property from Bournemouth University, UK. She has experience in the private sector, working at an important law firm in Venezuela, in the public sector, both in Venezuela (Town Hall of Baruta) and in Spain (Ministry for Foreign Affairs and Cooperation), as researcher (Universidad Central de Venezuela) and in NGOs. She is passionate about International Law, the EU, exploitation, marketing, and the linkage with IP rights. She has experience in H2020 EU funded projects: INDIGO and Heat-to-Fuel, as WP leader on dissemination and communication activities; and NEXTOWER, as exploitation and business developer.)

Ms. Eleonora Nicolazzi (F) holds an MSc degree in Building System Engineering from Polytecnic of Milan (Milan, Italy). She worked in several energy consulting companies and an Energy Service Company (ESCo) for civil and industrial sector. She is an Energy Management Expert focus on Energy Audits (EA) and Energy Management Systems (EMS) implementation, energy efficiency and feasibility studies for building-plant system with technical-economic analyses with the aim to reduce operative costs, carbon impact and increase asset profitability and value. She is keen interest in renewable energies and green technology.

Significant Infrastructures and/or relevant information to the proposal

A description of any significant infrastructure and/or any major items of technical equipment, relevant to the proposed work

OPTIONAL. Any other supporting info

Any other supporting documents specified in the work programme for this call.

Short CV of your team. **Related experience!. Gender Balance!**

Infrastructure to be used in the project

2. Participant information

This information will be used to complete the point "B.4.2. Third parties involved in the project (including use of third party resources)" of the proposal

Does the participant plan to subcontract certain tasks (please note that core tasks of the project NO should not be sub-contracted) If yes, please describe and justify the tasks to be subcontracted: Does the participant envisage that part of its work is performance by linked third parties?2 NO If yes, please describe the third party, the link of the participant to the third party, and describe and justify the foreseen tasks to be performed by the third party: Does the participant envisage the use of contributions in kind provided by third parties (Articles 11 NO and 12 of the General Model Grant Agreement) If yes, please describe the third party and their contributions:

Subcontracting (ONLY IF NEEDED!!), If applicable justify it well to avoid losing time during GA preparation!

Third link party (More flexible), you'll need to demonstrate the relation between the companies

3 - Budget for the proposal

| No | Participant | Country | (A) Direct personnel costs/€ | (B) Other direct costs/€ | (C) Direct costs of sub-contracting/€ | (D) Direct costs of providing financial support to third parties/€ | (E) Costs of inkind contributions not used on the beneficiary's premises/€ | /€ | (G) Special unit costs covering direct & indirect costs / € | (H) Total estimated eligible costs / € (=A+B+C+D +F+G) BENEFICIARY | | N. O. C. Carlotte and Co. | (K) Costs of third parties linked to participant THIRD PARTIES ? | | (M) Total Costs for BENEFICIARY & THIRD PARTIES (=H+K) | And the second s | (O) Requested EU Contribution / € BENEFICIARY & THIRD PARTIES ? |
|----|-------------|---------|---------------------------------------|--------------------------------|---------------------------------------|--|--|------|---|--|-----|---------------------------|--|------|---|--|---|
| 1 | | | 0 | 0 | 0 | 0 | 0 | 0,00 | 0 | 0,00 | 100 | 0,00 | 0 | 0 | 0,00 | 0,00 | 0,00 |
| | Total | | 0 | 0 | 0 | 0 | 0 | 0,00 | 0 | 0,00 | | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |

- Personnel costs (being the main segment of most projects):
 - Calculation of personnel costs. When calculating the personnel costs, the EC (and therefore us) is interested in the average monthly cost of employment of the personnel that is expected to participate in the project of each partner. This should be presented in EURO per person-month. The average monthly cost of employment should include the salaries alongside any additional employer's payments (such as social benefits, pension, etc.). There is no need to get into the fine details of all salaries and additional payments. The main focus here is the average cost. Normally, it is up to the financial department of the partner's institution to provide these required figures.

Personnel costs (being the main segment of most projects):

- Allocation of person-months per work package. In this process, each partner should estimate how many person-months it should allocate per task. These allocations are then add up to the total amount of person-months per partner.

Travel costs:

- Travel costs can be associated with specific tasks or work packages, although it is not a must. It is perfectly fine to present a general travel budget (per partner) for the entire project.
- That being said, we recommend having some kind of breakdown. Since it is hard to predict the exact costs of future travel expenses, we recommend using an average cost of travel and multiplying it with the expected number of trips planned during the project. The average travel cost should include transport, accommodation and subsistence per person, for a period of 2-3 days.
- Travel is of course expected when implementing a Horizon 2020 project. Still, we recommend not to overdo it. It is essential to keep the travel budget realistic and appropriate to the amount of involved personnel (per partner) and associated tasks.

Equipment costs:

- Any equipment required for the direct execution of the project is eligible for funding.
- Horizon 2020 equipment budget requests should be claimed based on their **depreciation value according to the local tax laws of each partner**. The financial department in each institution should be able to assist in this regard.

• Other goods and services costs:

- Any goods and/or services required for the direct execution of the project can be added to the requested budget.
- In case a partner's total budget surpasses €325,000, a Certificate on Financial Statements (CFS) is required to be submitted once the project ends. The cost of producing the CFS is eligible and should be included in the partner's budget estimation under this category.

• Sub-contracting and 3rd parties:

- Any cost that might be directed towards sub-contractors and involved 3rd parties should be included in the requested budget. Any external services that are performed outside of the consortium should be **used only if essential and justified**.
- Keep in mind that subcontracting costs are not eligible for the 25% flat-rate addition of indirect costs.

Consolidating the Horizon 2020 budget

Add up all costs (per category) declared from all partners. This will reveal what the total project budget has amounted to. If the total budget is within the expected range of the requested EC contribution for this project (as mentioned in the call text), the following step can be to draft the budget description in section 3.4 of the template.

If the total budget significantly exceeds the expected requested contribution, it is necessary to revisit the input from the partners and consult with them regarding the reduction of the budget. The budget cut could be surgical (per partner) or horizontal (be that it is mutually agreed on).

The unwritten rules of budget consolidation

When consolidating the Horizon 2020 budget, we recommend to attend to the following unwritten rules and suggestions, based on our experience and feedback from reviewers:

- Avoid allocating more than 30% of the overall budget to a single partner (Coordinator included)
- Avoid allocating more than 40% of the overall budget to a single country (all partners from the same country put together)
- The budget allocated for coordination and project management activities (mostly by the coordinator) should range between 5% to 5.5% of the overall budget. In the past, the bar was set at 7%, however today we know that the expectation of coordination costs is lower.
- Avoid allocating coordination and project management activities to other partners, except for
 dedicated management partners

Proposal template - Part B Excellence

A Fill in the title of your proposal below.

TITLE OF THE PROPOSAL

A The consortium members are listed in part A of the proposal (administrative forms). A summary list should also be provided in the table below.

List of participants

| Participant No. * | Participant organisation name | Country |
|-------------------|-------------------------------|---------|
| 1 (Coordinator) | | |
| 2 | | |
| 3 | | |

^{*} Please use the same participant numbering as that used in the administrative proposal forms.

1. Excellence

Your proposal must address a work programme topic for this call for proposals.

A This section of your proposal will be assessed only to the extent that it is relevant to that topic.

1. Objectives

 Describe the overall and specific objectives for the project¹, which should be clear, measurable, realistic and achievable within the duration of the project Objectives should be consistent with the expected exploitation and impact of the project (see section 2).

2. Relation to the work programme

Indicate the work programme topic to which your proposal relates, and explain how your
proposal addresses the specific challenge and scope of that topic, as set out in the work
programme.

3. Concept and methodology

(a) Concept

 Describe and explain the overall concept underpinning the project. Describe the main ideas, models or assumptions involved. Identify any inter-disciplinary considerations and, where relevant, use of stakeholder knowledge. Where relevant, include measures taken for public/societal engagement on issues related to the project. Describe the positioning of the project e.g. where it is situated in the spectrum from 'idea to application', or from 'lab to market'. Refer to Technology Readiness Levels where relevant. (See General Annex G of the work programme): Describe any national or international research and innovation activities which will be linked with the project, especially where the outputs from these will feed into the project;

(b) Methodology

- Describe and explain the overall methodology, distinguishing, as appropriate, activities indicated in the relevant section of the work programme, e.g. for research, demonstration, piloting, first market replication, etc.
- Where relevant, describe how the gender dimension, i.e. sex and/or gender analysis is taken into account in the project's content.

⚠ Please note that this question does not refer to gender balance in the teams in charge of carrying out the project but to the content of the planned research and innovation activities. Sex and gender analysis refers to biological characteristics and social/cultural factors respectively. For guidance on methods of sex \ gender analysis and the issues to be taken into account, please refer to http://cc.europa.eu/research/swafs/gendered-innovations/index en.cfm?pg=home

4. Ambition

- Describe the advance your proposal would provide beyond the state-of-the-art, and the
 extent the proposed work is ambitious.
- Describe the innovation potential (e.g. ground-breaking objectives, novel concepts and approaches, new products, services or business and organisational models) which the proposal represents. Where relevant, refer to products and services already available on the market. Please refer to the results of any patent search carried out.

The term 'project' used in this template equates to an 'action' in certain other Horizon 2020 documentation.

Proposal template - Part B Impact

2. Impact

Expected impacts

Please be specific, and provide only information that applies to the proposal and its objectives. Wherever possible, use quantified indicators and targets.

- · Describe how your project will contribute to:
- each of the expected impacts mentioned in the work programme, under the relevant topic;
- any substantial impacts not mentioned in the work programme, that would enhance innovation capacity; create new market opportunities, strengthen competitiveness and growth of companies, address issues related to climate change or the environment, or bring other important benefits for society
- Describe any barriers/obstacles, and any framework conditions (such as regulation, standards, public acceptance, workforce considerations, financing of follow-up steps, cooperation of other links in the value chain), that may determine whether and to what extent the expected impacts will be achieved. (This should not include any risk factors concerning implementation, as covered in section 3.2.)

a) Dissemination and exploitation2 of results

Provide a draft 'plan for the dissemination and exploitation of the project's results'.
 Please note that such a draft plan is an <u>admissibility condition</u>, unless the work programme topic explicitly states that such a plan is not required.

Show how the proposed measures will help to achieve the expected impact of the project.

The plan, should be proportionate to the scale of the project, and should contain measures to be implemented both during and after the end of the project. For innovation actions, in particular, please describe a credible path to deliver these innovations to the market.

A Your plan for the dissemination and exploitation of the project's results is key to maximising their impact. This plan should describe, in a concrete and comprehensive manner, the area in which you expect to make an impact and who are the potential users of your results. Your plan should also describe how you intend to use the appropriate channels of dissemination and interaction with notential users.

Consider the full range of potential users and uses, including research, commercial, investment, social, environmental, policy-making, setting standards, skills and educational training where relevant.

A Your plan should give due consideration to the possible follow-up of your project, once it is finished. Its exploitation could require additional investments, wider testing or scaling up. Its exploitation could also require other pre-conditions like regulation to be adapted, or value chains to adopt the results, or the public at large being receptive to your results.

- · Include a business plan where relevant.
- As relevant, include information on how the participants will manage the research data generated and/or collected during the project, in particular addressing the following issues:
 - o What types of data will the project generate/collect?
 - o What standards will be used?
 - How will this data be exploited and/or shared/made accessible for verification and re-use? If data cannot be made available, explain why.
 - o How will this data be curated and preserved?
 - o How will the costs for data curation and preservation be covered?

Actions under Horizon 2020 participate in the extended 'Pilot on Open Research Data in Horizon 2020 ('open research data by default'), except if they indicate otherwise ('opt-out'.)³. Once the action



Proposal template - Part B Implementation

3. Implementation

Work plan — Work packages, deliverables

Please provide the following:

- · brief presentation of the overall structure of the work plan;
- timing of the different work packages and their components (Gantt chart or similar);
- · detailed work description, i.e.:
 - o a list of work packages (table 3.1a);
 - a description of each work package (table 3.1b);

o a list of major deliverables (table 3.1c);

- graphical presentation of the components showing how they inter-relate (Pert chart or similar).
- ▲ Give full details. Base your account on the logical structure of the project and the stages in which it is to be carried out. The number of work packages should be proportionate to the scale and complexity of the project.
- ▲ You should give enough detail in each work package to justify the proposed resources to be allocated and also quantified information so that progress can be monitored, including by the Commission
- A Resources assigned to work packages should be in line with their objectives and deliverables. You are advised to include a distinct work package on 'management' (see section 3.2) and to give due visibility in the work plan to 'dissemination and exploitation' and 'communication activities', either with distinct tasks or distinct work packages.
- ▲ You will be required to include an updated (or confirmed) plan for the dissemination and exploitation of results' in both the periodic and final reports. (This does not apply to topics where a draft plan was not required.) This should include a record of activities related to dissemination and exploitation that have been undertaken and those still planned. A report of completed and planned communication activities will also be required.
- ▲ If your project is taking part in the Pilot on Open Research Data, you must include a 'data management plan' as a distinct deliverable within the first 6 months of the project. A template for such a plan is given in the guidelines on data management in the H2020 Online Manual. This deliverable will evolve during the lifetime of the project in order to present the status of the project's reflections on data management.

Definitions

Work package means a major sub-division of the proposed project.

'Deliverable' means a distinct output of the project, meaningful in terms of the project's overall objectives and constituted by a report, a document, a technical diagram, a software etc.

Management structure, milestones and procedures

- Describe the organisational structure and the decision-making (including a list of milestones (table 3.2a))
- Explain why the organisational structure and decision-making mechanisms are appropriate to the complexity and scale of the project.
- Describe, where relevant, how effective innovation management will be addressed in the management structure and work plan.
- ⚠ Innovation management is a process which requires an understanding of both market and technical problems, with a goal of successfully implementing appropriate creative ideas. A new or improved product, service or process is its typical output. It also allows a consortium to respond to an external or internal opportunity.
- Describe any critical risks, relating to project implementation, that the stated project's
 objectives may not be achieved. Detail any risk mitigation measures. Please provide a
 table with critical risks identified and mitigating actions (table 3.2b)

Definition:

'Milestones' means control points to the project that help to chart progress. Milestones may correspond to the completion of a key deliverable, allowing the next phase of the work to begin. They may also be needed at intermediary points so that, if problems have arisen, corrective measures can be taken. A milestone may be a critical decision point in the project where, for example, the consortium must decide which of several technologies to adopt for further development.

Consortium as a whole

- A The individual members of the consortium are described in a separate section 4. There is no need to repeat that information here.
- Describe the consortium. How will it match the project's objectives, and bring together
 the necessary expertise? How do the members complement one another (and cover the
 value chain, where appropriate).?
- In what way does each of them contribute to the project? Show that each has a valid
 role, and adequate resources in the project to fulfil that role.
- If applicable, describe the industrial/commercial involvement in the project to ensure
 exploitation of the results and explain why this is consistent with and will help to
 achieve the specific measures which are proposed for exploitation of the results of the
 project (see section 2.2).
- Other countries and international organisations: If one or more of the participants
 requesting EU funding is based in a country or is an international organisation that is
 not automatically eligible for such funding (entities from Member States of the EU,
 from Associated Countries and from one of the countries in the exhaustive list included
 in General Annex A of the work programme are automatically eligible for EU funding),
 explain why the participation of the entity in question is essential to carrying out the
 project

Resources to be committed

Please make sure the information in this section matches the costs as stated in the budget table in section 3 of the administrative proposal forms, and the number of person months, shown in the detailed work package descriptions.

Please provide the following:

- a table showing number of person months required (table 3.4a)
- a table showing 'other direct costs' (table 3.4b) for participants where those costs exceed 15% of the personnel costs (according to the budget table in section 3 of the administrative proposal forms)



Proposal template - Part B Implementation Tables

Tables for section 3.2

Table 3.2a: List of milestones

| Milestone number | Milestone name | Related work package(s) | Due date (in month) | Means of verification |
|---------------------|-------------------|----------------------------|------------------------|--------------------------|
| | | | | |
| | | | | |
| | | | | |

KEY

Due date

Measured in months from the project start date (month 1)

Means of verification

Show how you will confirm that the milestone has been attained. Refer to indicators if appropriate. For example: a laboratory prototype that is 'up and running'; software released and validated by a user group; field survey complete and data quality validated.

Table 3.2b: Critical risks for implementation

| Description of risk (indicate level of likelihood: Low/Medium/High) | Work package(s) involved | Proposed risk-mitigation measures |
|---|-----------------------------|-----------------------------------|
| | | |
| | | |
| | | |

Definition critical risk:

A critical risk is a plausible event or issue that could have a high adverse impact on the ability of the project to achieve its objectives.

Level of likelihood to occur: Low/medium/high

The likelihood is the estimated probability that the risk will materialise even after taking account of the mitigating measures put in place.

Table 3.1c: List of Deliverables

| Deliverable (number) | Deliverable name | Work package number | Short name of lead participant | Туре | Dissemination level | Delivery date (in months) |
|-------------------------|---------------------|---------------------------|---|------|------------------------|------------------------------------|
| | | | | | | |
| | | | | | | |

KEY

Deliverable numbers in order of delivery dates. Please use the numbering convention <WP number>.<number of deliverable within that WP>.

For example, deliverable 4.2 would be the second deliverable from work package 4.

Type:

Use one of the following codes:

R: Document, report (excluding the periodic and final reports)

DEM: Demonstrator, pilot, prototype, plan designs

DEC: Websites, patents filing, press & media actions, videos, etc.

OTHER: Software, technical diagram, etc.

Dissemination level:

Use one of the following codes:

PU = Public, fully open, e.g. web

CO = Confidential, restricted under conditions set out in Model Grant Agreement

CI = Classified, information as referred to in Commission Decision 2001/844/EC.

Delivery date

Measured in months from the project start date (month 1)

Proposal template - Part B Other direct cost

Table 3.4b: 'Other direct cost' items (travel, equipment, other goods and services, large research infrastructure)

Please complete the table below for each participant if the sum of the costs for 'travel', 'equipment', and 'goods and services' exceeds 15% of the personnel costs for that participant (according to the budget table in section 3 of the proposal administrative forms).

| Participant Number/Short Name | Cost (€) | Justification |
|----------------------------------|-------------|---------------|
| Travel | | 1710 |
| Equipment | 4 | |
| Other goods and services | | |
| Total | | |

Please complete the table below for all participants that would like to declare costs of large research infrastructure under Article 6.2 of the General Model Agreement⁸, irrespective of the percentage of personnel costs. Please indicate (in the justification) if the beneficiary's methodology for declaring the costs for large research infrastructure has already been positively assessed by the Commission.

| Participant Number/Short Name | Cost (€) | Justification |
|----------------------------------|-------------|---------------|
| Large research infrastructure | | |

Letter of Support request

The following information has to be provided:

- Abstract of the project describing its ambition, proposed concept or main activities, expected outcome
- Information on the consortium
- Information on how the project wants to liaise and support the implementation of its strategic agenda
- Information on what contribution is expected (e.g. participation in an Advisory Board, participation at workshops, involvement of experts,...)

Form request Letter of Support

Secretariat. The cases are not fixed, they will adapt to the length of you answers.

Please fill in the cases below and send the form to the Management B **ABSTRACT OF THE PROJECT** 1. Description of its ambition 2. Proposed concept or main activities 3. Expected outcom INFORMATION ON THE CONSORTIUM 1. Contact person of the consortium Organisation: Name: Function: Email: Telephone: 2. Consortium partners: HOW DOES THE PROJECT WANT TO LIAISE WITH AND SUPPORT THE IMPLEMENTATION OF ITS STRATEGIC AGENDA? This question refers to e.g. reference to one or more of the thematic priorities, cooperation

WHAT CONTRIBUTION IS EXPECTED FROM?

This question refers to e.g. participation in an Advisory Board, participation at workshops, involvement of experts

ADDITIONAL INFORMATION

Letter of Support template

Headed paper of the supporting organization

Coordinator name
Coordinator company/university/RTO
Coordinator Address
To be sent by mail in pdf format to:

Object: Letter of support to the project

Hereby, ORGANISATION NAME would like to express its interest in supporting the H2020 project XXX

In line with our Organization needs and interests, the support to the Project will result in one or more of the following activities:

- Receiving the PROJECT XXX newsletter and news;
- Answering to the Call for practices: inform on our own participatory experience in sustainable energy
- Consulting the PROJECT XXX Database: learn from other European participatory practices in sustainable energy;
- Attending the Deliberative event, with the goal of discussing pitfalls and successes of the participatory practices and the corrective actions (adopted or envisaged) to tackle problems and obstacles identified
- Test the PROJECT XXX
- Host a communication event on the PROJECT XXX findings (starting).

Signing this letter and supporting the PROJECT XXX project is free of charge.

Best regards,

Place, Date

Signature



General agreement

The Grant Agreement (GA) is the funding agreement concluded between the European Commission/funding agency and the project participants and specifies the rights and obligations of the contracting parties. It contains important provisions for the implementation of the project such as criteria for the eligibility of costs and provisions for handling intellectual property rights.



H2020 Programme



842020 General MGA — Multi)

Yester 5.0

Debate:
The document is arrest as according applicantly for become 2000 funding it allows the full large of provisions that may be applied to the large of great agreement, and is provided for information purposes only. The impats briding good agreement will be that which is popular playment will be that which is popular playment will be that which in popular playment and the that which is popular playment and the that which is popular playment and the provided of the popular playment and provided of the popular playment and playment an

Structure and key points of the General Grant Agreement

- Preamble Participants
- Chapter 1 General
- Chapter 2 Action (name, acronym, start and duration of project etc.)
- Chapter 3 Grant (max. amount and calculation of grant, funding rate(s), eligible costs)
- Chapter 4 Rights and obligations of the parties (e.g. third party costs, documentation obligations, reporting and payments, checks/reviews/audits and management of intellectual property)
- Chapter 5 Division of roles and responsibilities (within the consortium)
- Chapter 6 Rejection of costs, reduction of the grant etc.
- Chapter 7 Final provisions

The Grant Agreement includes the following Annexes:

- Annex 1 Description of the action (DoA)
- Annex 2 Estimated budget for the action
- Annex 3 Accession Forms
- Annex 4 Model for the financial statements
- Annex 5 Model for the certificate on the financial statements (CFS)
- Annex 6 Model for the certificate on the methodology (CoMUC)

General agreement info

All actual costs must ...

- be actually incurred by the participant (no estimated/imputed/budgeted costs),
- 2. be incurred in the project period (exception: travel costs for kick-off meeting; costs of final report submitted within 60 days of the end of the project),
- be included in the budget (indicated in the estimated budget of the GA; for more information see budget transfers),
- be incurred in connection with the action and necessary for its implementation,
- 5. be identifiable and verifiable and recorded in the beneficiary's accounts in accordance with the applicable accounting standards and usual cost accounting practices,
- 6. comply with the applicable national laws on taxes, labour and social security, and
- 7. **be reasonable and justified** and comply with the principle of sound financial management (in particular regarding
- 92 economy and efficiency).

The **financial report** consists of three parts:

- 1. the individual financial statements of all beneficiaries and linked third parties,
- the associated explanation on the use of resources with detailed explanations on the eligible costs and
- the summary financial statement (generated automatically) of all beneficiaries, including the request for interim/balance payment.

| Payment | Date of payment |
|--------------------|--|
| Pre-Financing | Within 30 days of the entry into force of the GA or 10 days prior to the starting date of the action (whichever is the latest) |
| Interim Payment(s) | Within 90 days of submission of the interim report |
| Balance Payment | Within 90 days of submission of the final report |

The following costs are not eligible:

- **provisions** for future losses or debts
- interest owed
- currency exchange losses
- deductible VAT

Consortium agreement

The Consortium Agreement specifies the rights and obligations of the project partners. A Consortium Agreement is obligatory for most projects and should be signed prior to the Grant Agreement.

The **consortium is solely responsible** for the preparation of the Consortium Agreement. The **CA must not contradict the GA**. The information provided by the project partners in the **Description of the Action** (Annex 1 of the GA) are therefore binding for the Consortium Agreements typically specify the following topics:

- General provisions: definitions, entry into force, duration, applicable law (often: Belgian law) etc.
- Obligations of partners: compliance with deadlines for deliverables and reports, information obligations, participation in meetings etc. and consequences of non-compliance
- Internal organisation and decision-making: composition and duties of bodies (corresponding to the size of the consortium), meetings, voting rules etc.
- **Financial provisions**: allocation of funding and transfer to the partners (e.g. payment of pre-financing in instalments), handling of receipts and financial losses etc.
- Provisions on the handling of intellectual property rights: more detailed information about the consortium's ability to specify the handling of intellectual property rights, access rights and project results can be found in the documents available in the Download Center.
- Other issues: liability, non-disclosure, dispute resolution ...

Download template:

Who are the key actors in H2020 Energy calls and how to engage with them

Key actors in the **Secure, Clean and Efficient Energy** thematic priority **Overall top 15 EU participations**

| n. | Legal Name | Country | City | H2020 Participations | H2020 Net EU Contribution |
|----|--|------------------|------------------------|-------------------------|------------------------------|
| 1 | FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V. | DE - Germany | MUNCHEN | 72 | € 47.586.180 |
| 2 | COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES | FR - France | PARIS 15 | 51 | € 30.877.315 |
| 3 | Teknologian tutkimuskeskus VTT Oy | FI - Finland | ESPOO | 46 | € 27.505.748 |
| 4 | FUNDACION TECNALIA RESEARCH & INNOVATION | ES - Spain | DERIO BIZKAIA | 46 | € 24.131.095 |
| 5 | DANMARKS TEKNISKE UNIVERSITET | DK - Denmark | KGS LYNGBY | 44 | € 18.106.828 |
| 6 | NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO | NL - Netherlands | DEN HAAG | 33 | € 18.000.089 |
| 7 | AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE | IT - Italy | ROMA | 32 | € 6.615.869 |
| 8 | AALBORG UNIVERSITET | DK - Denmark | AALBORG | 31 | € 13.938.928 |
| 9 | ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS | EL - Greece | THERMI THESSALONIKI | 30 | € 15.148.898 |
| 10 | POLITECNICO DI MILANO | IT - Italy | MILANO | 30 | € 8.801.301 |
| 11 | CONSIGLIO NAZIONALE DELLE RICERCHE | IT - Italy | ROMA | 29 | € 10.584.647 |
| 12 | CENTRE FOR RENEWABLE ENERGY SOURCES AND SAVING FONDATION | EL - Greece | PIKERMI | 28 | € 4.195.950 |
| 13 | CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS | FR - France | PARIS | 26 | € 11.157.329 |
| 14 | ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE | CH - Switzerland | LAUSANNE | 26 | € 6.765.981 |
| 15 | FUNDACION CIRCE CENTRO DE INVESTIGACION DE RECURSOS Y CONSUMOS ENERGETICOS | ES - Spain | ZARAGOZA | 25 | € 8.946.924 |

Key actors in the **Secure, Clean and Efficient Energy** thematic priority **Overall top SMEs participations**

| n. | Legal Name | Country | City | H2020 Participations | H2020 Net EU Contribution |
|----|--|---------------------|-------------------------|-------------------------|------------------------------|
| 1 | WIRTSCHAFT UND INFRASTRUKTUR GMBH & CO PLANUNGS KG | DE - Germany | MUENCHEN | 24 | € 6.842.323 |
| 2 | ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)* | DE - Germany | FREIBURG | 17 | € 4.653.264 |
| 3 | ZABALA INNOVATION CONSULTING, S.A. | ES - Spain | MUTILVA ALTA NAVARRA | 12 | € 3.070.159 |
| 4 | R2M SOLUTION SRL | IT - Italy | PAVIA | 12 | € 2.693.706 |
| 5 | SEVEN, THE ENERGY EFFICIENCY CENTER Z.U. | CZ - Czech Republic | PRAHA | 12 | € 1.603.463 |
| 6 | SOLIDPOWER SPA | IT - Italy | MEZZOLOMBA RDO TN | 10 | € 10.166.968 |
| 7 | SUNFIRE GMBH | DE - Germany | DRESDEN | 10 | € 14.147.669 |
| 8 | HYPERTECH (CHAIPERTEK) ANONYMOS VIOMICHANIKI EMPORIKI ETAIREIA PLIROFORIKIS KAI NEON TECHNOLOGION | EL - Greece | CHALANDRI ATHINA | 10 | € 4.787.413 |
| 9 | HYGEAR TECHNOLOGY AND SERVICES BV | NL - Netherlands | ARNHEM | 10 | € 2.298.719 |
| 10 | EUROHEAT & POWER | BE - Belgium | BRUXELLES | 10 | € 1.416.388 |
| 11 | HyGear Fuel Cell Systems B.V. | NL - Netherlands | ARNHEM | 10 | € 923.631 |
| 12 | FUNDACION CENER-CIEMAT | ES - Spain | SARRIGUREN | 9 | € 4.481.069 |
| 13 | HYGEAR BV | NL - Netherlands | ARNHEM | 9 | € 3.035.897 |
| 14 | WAVEC/OFFSHORE RENEWABLES - CENTRO DE ENERGIA OFFSHORE ASSOCIACAO | PT - Portugal | LISBOA | 9 | € 2.987.322 |
| 15 | VAASAETT LTD AB QY | FI - Finland | HELSINKI | 8 | € 1.664.479 |

Key actors in the Secure, Clean and Efficient Energy thematic priority Overall top for profit participations

| n. | Legal Name | Country | City | H2020 Participations | H2020 Net EU Contribution |
|----|--|------------------|-------------------------|-------------------------|------------------------------|
| 1 | WIRTSCHAFT UND INFRASTRUKTUR GMBH & CO PLANUNGS KG | DE - Germany | MUENCHEN | 24 | € 6.842.323 |
| 2 | RINA CONSULTING SPA | IT - Italy | GENOVA | 19 | € 7.943.261 |
| 3 | ELECTRICITE DE FRANCE | FR - France | PARIS 08 | 17 | € 10.326.833 |
| 4 | KRAJOWA AGENCJA POSZANOWANIA ENERGII SPOLKA AKCYJNA | PL - Poland | WARSZAWA | 14 | € 1.359.146 |
| 5 | ENEL GREEN POWER SPA | IT - Italy | ROMA | 13 | € 16.391.018 |
| 6 | ZABALA INNOVATION CONSULTING, S.A. | ES - Spain | MUTILVA ALTA NAVARRA | 12 | € 3.070.159 |
| 7 | R2M SOLUTION SRL | IT - Italy | PAVIA | 12 | € 2.693.706 |
| 8 | ACCIONA CONSTRUCCION SA | ES - Spain | ALCOBENDAS | 11 | € 4.751.627 |
| 9 | SOLIDPOWER SPA | IT - Italy | MEZZOLOMBA RDO TN | 10 | € 10.166.968 |
| 10 | SUNFIRE GMBH | DE - Germany | DRESDEN | 10 | € 14.147.669 |
| 11 | etra investigacion y desarrollo sa | ES - Spain | VALENCIA | 10 | € 7.986.288 |
| 12 | ENGINEERING - INGEGNERIA INFORMATICA SPA | IT - Italy | ROMA | 10 | € 5.094.215 |
| 13 | HYPERTECH (CHAIPERTEK) ANONYMOS VIOMICHANIKI EMPORIKI ETAIREIA PLIROFORIKIS KAI NEON TECHNOLOGION | EL - Greece | CHALANDRI ATHINA | 10 | € 4.787.413 |
| 14 | HYGEAR TECHNOLOGY AND SERVICES BV | NL - Netherlands | ARNHEM | 10 | € 2.298.719 |
| 15 | EUREC EESV | BE - Belgium | BRUXELLES | 10 | € 1.413.413 |

Key actors in the Secure, Clean and Efficient Energy thematic priority 2017/2018/2019 top 15 participations

| n. | Legal Name | Country | City | H2020 Participations | H2020 Net EU Contribution |
|----|--|------------------|------------------------|-------------------------|------------------------------|
| 1 | FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V. | DE - Germany | MUNCHEN | 34 | € 22.884.323 |
| 2 | COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES | FR - France | PARIS 15 | 28 | € 19.333.681 |
| 3 | Teknologian tutkimuskeskus VTT Oy | FI - Finland | ESPOO | 25 | € 16.020.656 |
| 4 | FUNDACION TECNALIA RESEARCH & INNOVATION | ES - Spain | DERIO BIZKAIA | 20 | € 9.262.183 |
| 5 | DANMARKS TEKNISKE UNIVERSITET | DK - Denmark | KGS LYNGBY | 20 | € 8.094.853 |
| 6 | ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS | EL - Greece | THERMI THESSALONIKI | 18 | € 9.580.331 |
| 7 | CONSIGLIO NAZIONALE DELLE RICERCHE | IT - Italy | ROMA | 16 | € 5.609.664 |
| 8 | SINTEF AS | NO - Norway | TRONDHEIM | 16 | € 11.343.706 |
| 9 | ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE | CH - Switzerland | LAUSANNE | 16 | € 6.765.981 |
| 10 | AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA È LO SVILUPPO ECONOMICO SOSTENIBILE | IT - Italy | ROMA | 15 | € 3.056.161 |
| 11 | AALBORG UNIVERSITET | DK - Denmark | AALBORG | 15 | € 9.262.099 |
| 12 | NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO | NL - Netherlands | DEN HAAG | 14 | € 8.492.009 |
| 13 | FUNDACION CIRCE CENTRO DE INVESTIGACION DE RECURSOS Y CONSUMOS ENERGETICOS | ES - Spain | ZARAGOZA | 13 | € 5.068.670 |
| 14 | POLITECNICO DI MILANO | IT - Italy | MILANO | 12 | € 3.527.136 |
| 15 | WIRTSCHAFT UND INFRASTRUKTUR GMBH & CO PLANUNGS KG | DE - Germany | MUENCHEN | 12 | € 3.447.803 |

Key actors in the Secure, Clean and Efficient Energy thematic priority 2017/2018/2019 top SMEs participations

| n. | Legal Name | Country | City | H2020 Participations | H2020 Net EU Contribution |
|----|--|------------------|-------------------------|-------------------------|------------------------------|
| 1 | WIRTSCHAFT UND INFRASTRUKTUR GMBH & CO PLANUNGS KG | DE - Germany | MUENCHEN | 12 | € 3.447.803 |
| 2 | ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)* | DE - Germany | FREIBURG | 9 | € 2.126.663 |
| 3 | ZABALA INNOVATION CONSULTING, S.A. | ES - Spain | MUTILVA ALTA NAVARRA | 8 | € 1.765.284 |
| 4 | HYPERTECH (CHAIPERTEK) ANONYMOS VIOMICHANIKI EMPORIKI ETAIREIA PLIROFORIKIS KAI NEON TECHNOLOGION | EL - Greece | CHALANDRI ATHINA | 7 | € 3.264.413 |
| 5 | R2M SOLUTION SRL | IF - Italy | PAVIA | 7 | € 1.674.473 |
| 6 | ETA - ENERGIA, TRASPORTI, AGRICOLTURA SRL | IT - Italy | FIRENZE | 7 | € 1.336.113 |
| 7 | SUNFIRE GMBH | DE - Germany | DRESDEN | 6 | € 5.802.526 |
| 8 | VAASAETT LTD AB OY | FI - Finland | HELSINKI | 6 | € 1.276.361 |
| 9 | EUROHEAT & POWER | BE - Belgium | BRUXELLES | 6 | € 937.063 |
| 10 | HYGEAR TECHNOLOGY AND SERVICES BV | NL - Netherlands | ARNHEM | 6 | € 715.085 |
| 11 | SOLIDPOWER SPA | IT - Italy | MEZZOLOMBA RDO TN | 5 | € 3.290.994 |
| 12 | B.T.G. BIOMASS TECHNOLOGY GROUP BV | NL - Netherlands | ENSCHEDE | 5 | € 2.623.323 |
| 13 | HYGEAR BV | NL - Netherlands | ARNHEM | 5 | € 1.801.644 |
| 14 | FAHRENHEIT GMBH | DE - Germany | MUNCHEN | 5 | € 1.862.188 |
| 15 | MERIT CONSULTING HOUSE | BE - Belgium | UCCLE | 5 | € 1.737.421 |

Key actors in the Secure, Clean and Efficient Energy thematic priority 2017/2018/2019 top for profit participations

| n. | Legal Name | Country | City | H2020 Participations | H2020 Net EU Contribution |
|----|--|------------------|-------------------------|-------------------------|------------------------------|
| 1 | WIRTSCHAFT UND INFRASTRUKTUR GMBH & CO PLANUNGS KG | DE - Germany | MUENCHEN | 12 | € 3.447.803 |
| 2 | ELECTRICITE DE FRANCE | FR - France | PARIS 08 | 12 | € 8.806.103 |
| 3 | RINA CONSULTING SPA | IT - Italy | GENOVA | 11 | € 5.799.075 |
| 4 | ZABALA INNOVATION CONSULTING, S.A. | ES - Spain | MUTILVA ALTA NAVARRA | 8 | € 1.765.284 |
| 5 | KRAJOWA AGENCJA POSZANOWANIA ENERGII SPOLKA AKCYJNA | PL - Poland | WARSZAWA | 7 | € 790.688 |
| 6 | ENEL GREEN POWER SPA | IT - Italy | ROMA | 7 | € 11.529.358 |
| 7 | R2M SOLUTION SRL | IT - Italy | PAVIA | 7 | € 1.674.473 |
| 8 | ETA - ENERGIA, TRASPORTI, AGRICOLTURA SRL | IT - Italy | FIRENZE | 7 | € 1.336.113 |
| 9 | ETRA INVESTIGACION Y DESARROLLO SA | ES - Spain | VALENCIA | 7 | € 4.893.391 |
| 10 | HYPERTECH (CHAIPERTEK) ANONYMOS VIOMICHANIKI EMPORIKI ETAIREIA PLIROFORIKIS KAI NEON TECHNOLOGION | EL - Greece | CHALANDRI ATHINA | 7 | € 3.264.413 |
| 11 | EUREC EESV | BE - Belgium | BRUXELLES | 7 | € 1.040.888 |
| 12 | VAASAETT LTD AB OY | FI - Finland | HELSINKI | 6 | € 1.276.361 |
| 13 | SUNFIRE GMBH | DE - Germany | DRESDEN | 6 | € 5.802.526 |
| 14 | HYGEAR TECHNOLOGY AND SERVICES BV | NL - Netherlands | ARNHEM | 6 | € 715.085 |
| 15 | SOLIDPOWER SPA | IT - Italy | MEZZOLOMBAR DO TN | 5 | € 3.290.994 |

Key actors in the **Secure, Clean and Efficient Energy** thematic priority **Top Turkey participations**

| n. | Legal Name | Country | City | H2020 Participations | H2020 Net EU Contribution |
|----|---|-------------|-------------------------------|-------------------------|------------------------------|
| 1 | MIDDLE EAST TECHNICAL UNIVERSITY | TR - Turkey | ANKARA | 5 | € 1.254.376 |
| 2 | DE SURDURULEBILIR ENERJI VE INSAAT SANAYI TICARET LIMITED SIRKETI | TR - Turkey | USKUDAR | 3 | € 957.203 |
| 3 | TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU | TR - Turkey | ANKARA | 3 | € 239.656 |
| 4 | Turkiye Petrol Rafinerileri Anonim Sirketi | TR - Turkey | KOCAELI | 2 | € 1.096.375 |
| 5 | KADIR HAS UNIVERSITESI | TR - Turkey | ISTANBUL | 2 | € 287.688 |
| 6 | ELEKTRIK DAGITIM HIZMETLERI DERNEGI(ELDER) | TR - Turkey | CANKAYA | 2 | € 260.625 |
| 7 | JEOTERMAL ELEKTRIK SANTRAL YATIRIMCILARI DERNEGI | TR - Turkey | IZMIR | 2 | € 188.518 |
| 8 | TEPEBASI MUNICIPALITY | TR - Turkey | ESKISEHIR | 1 | € 3.785.614 |
| 9 | ANTALYA METROPOLITAN MUNICIPALITY | TR - Turkey | ANTALYA | 1 | € 2.792.615 |
| 10 | Sampas Bilisim Ve Iletisim Sistemleri Sanayi Ve Ticaret A.S. | TR - Turkey | ISTANBUL | 1 | € 1.046.938 |
| 11 | DEMIR CANER | TR - Turkey | ISTANBUL KADIKOY | 1 | € 447.125 |
| 12 | OLCSAN CAD TEKNOLOJILERI YAZILIM DONANIM DANISMANLIK SANAYI VE TICARETANONIM SIRKETI | TR - Turkey | MECIDIYEKOY SISLI ISTANBUL | 1 | € 384.169 |
| 13 | CIMSA CIMENTO SANAYI VE TICARET ANONIM SIRKETI | TR - Turkey | USKUDAR ISTANBUL | 1 | € 302.875 |
| 14 | ENERGON ENERJI VERIMLILIGI DANISMANLIGI HIZMETI VE TICARET LIMITED SIRKETI | TR - Turkey | ATASEHIR ISTANBUL | 1 | € 302.346 |
| 15 | SABANCI UNIVERSITESI | TR - Turkey | ISTANBUL | 1 | € 300.000 |

I want to promote my idea and coordinate a proposal

S

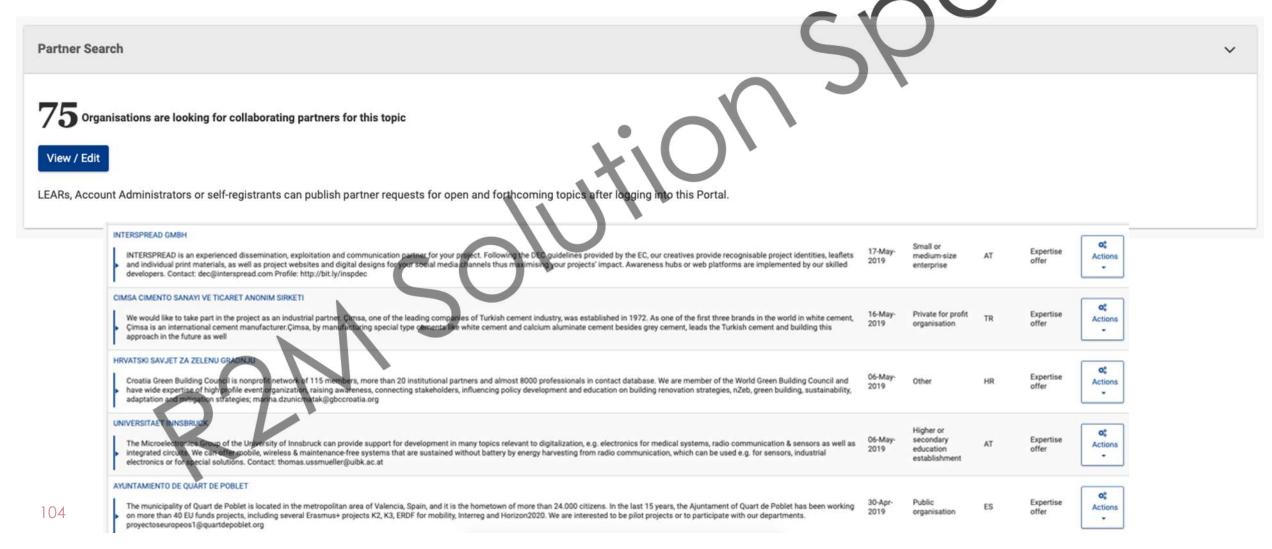
- 1. Create a document (**Concept note**) to capture the key actors on the value chain of your concept
- 2. Develop a structured set of questions to **gather the key information** on what they are doing or how they are feeling, what they may be concerned about and what their expectations are.
- 3. Analyse the information gained against what you want levels of engagement you require and what you want them to be doing in your proposal. Be as specific as possible.
- 4. Develop a persuasive **stakeholder engagement strategy** that uses visual tools and story-telling capability to involve, interest, motivate, inspire and retain them.

How to engage with key actors: Concept note

| n. | Consortium | Potential partner (examples) |
|----|--------------------------------|------------------------------|
| 1 | ICT developer | CEA/Fraunhofer/CNR |
| 2 | Aggregator | kiwipower/energy pool |
| 3 | Forecasting tool | Cardiff Uni/IREC |
| 4 | Utility | A2A/Iberdrola |
| 5 | DSO | ENEL/ENDESA/EDF |
| 6 | BRP | SCHOLT |
| 7 | ESCOs | R2M Energy |
| 8 | Consumer engagement | Alborg Uni/CSCP |
| 9 | Demos | City of xx/microgrid |
| 10 | Exploitation and dissemination | R2M Solution |

I want to promote my skills and be a partner of a proposal

1. Use the partner search in call topic



I want to promote my skills and be a partner of a proposal

2. Attend to the H2020 EU Energy Info days - Use it for networking



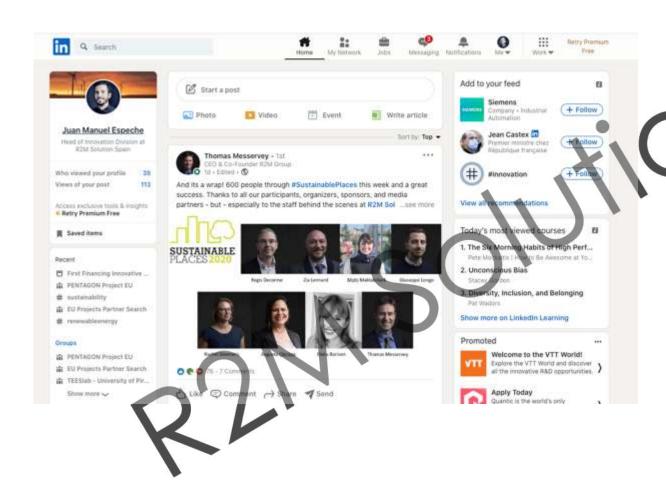
I want to promote my skills and be a partner of a proposal

2. Attend to relevant events like the European utility week, now called Enlit which will be in Milan 30 November 2021



I want to promote my skills and be a partner of a proposal

3. From the previous list of top participants - contact them through email/linkedIn



Personalize the message Standard messages = SPAM



How to write part per part the EXCELLENCE section in an H2020 Energy and Transport grant application with emphasis on examples from winning projects

50 Min. + 13:40 - 10MIN. QA 14:40

Proposal Basics - Part B

| 01 | Excellence | Objectives Relation to the WP Concept and Methodology Ambition |
|----|---------------------------|---|
| 02 | Impact | Expected Impacts Measures to Maximise Impacts Dissemination & Exploitation of results Communication |
| 03 | Implementation | Work-plan - work packages and deliverables Management, milestones and procedures Consortium as a whole Resources to be committed |
| 04 | Members of the Consortium | Member of the Consortium Participants Linked Third Parties |
| 05 | Ethics | EthicsSecurity |

70 Pages (RIA & IA) 50 Pages (CSA)

Part B Section Goals



What are the drivers?

What is your motivation?

What is your vision?

What are your objectives?

What are the basis?

01 02

Implementation

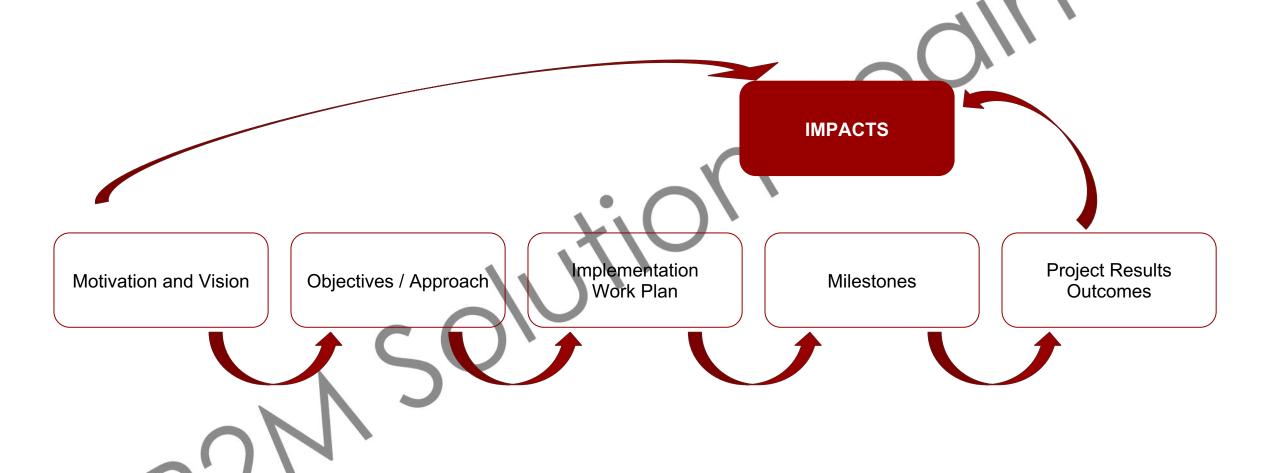
How will the project be executed?

Impact

What will be the benefits of during the projects and beyond?

How will the project ensure these results improve society?

Coherence of the entire proposal



Selecting a project title and acronym

Project Title: One-sentence describing the project. Normally easy to produce once the concept is clear

Project acronym: often using an acronym generator and choosing a word. Else anything memorable related to the concept

Proposal Full Title: Built to Specifications - Tools for the 21st Century Construction Site

Proposal Acronym: Built2Spec

Title of Proposal: Advanced materials solutions for next generation high efficiency concentrated solar power (CSP) tower systems

Acronym: NEXTOWER

Biorefinery combining HTL and FT to convert wet and solid organic, industrial wastes into 2nd generation biofuels with highest efficiency

HEAT-TO-FUEL

New generation of Intelligent & Efficient District Cooling systems

INDIGO 696098

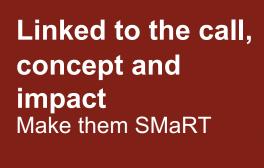
Excellence - The First Page

- Put yourself on the shoes of the evaluator
- Evaluators may have broad expertise but not specific
- Evaluators are human beings
 - They may be reviewing your proposal at 5pm on a Friday,
 - o They might be tired,
 - They might have only 10 min left to assess your proposal.
 - Do not annoy them further in a situation like this by poor formatting, typos or not following the requested template.
 - Make it easy for them to find the key points!!!!

So in the first page do answer

- What problem the project solves? Why is of EU relevance?
- What is the competition, how does the project assess against it?
- o What is the impact?
- Why is the consortium the best?
- Present the concept with an image

Excellence - Objectives



Specific

Meeting the identified needs in the motivation

Measurable

Measured by specific attainable indicators



Relevant

Adequate to the project goals and socio-cultural environment

Timely

Achieved during the project and reaching the market when needed

Excellence - Objectives

Objectives \(\neq \activities! \)

• The right question: – What do I plan to achieve?

 The wrong question: – What am I going to do?

Excellence - Relation to the Work Programme

Indicate the work program topic to which your proposal relates, and explain how your proposal addresses the specific challenge and scope of that topic, as set out in the work programme.

- Describe and explain the overall concept underpinning the project. Describe the main ideas, models or assumptions involved. Identify any inter-disciplinary considerations; where relevant, use of stakeholder knowledge
- Describe the positioning of the project e.g. where it is situated in the spectrum from 'idea to application', or from 'lab to market'. Refer to Technology Readiness Levels where relevant.

- The right question:
- -How am I going to reach my goals?
- The wrong question:
- -What exactly am I going to do when?

- •the concept should be based on a certain model/ hypothesis/ assumption that should be clearly stated and elaborated....(best if the hypothesis is based on findings of consortium members!)
- ...some facts/figures/numbers to the current situation
- this section is still quite general, not too much methodological detail with regards to the how"

show that you build on existing knowledge

- •Simply show the evaluators how your project connects to the rest of the world, and that you are aware of ongoing projects in the same field
- Don't overdo it, don't write 7-10 pages full of references or links

- Describe the concept
- Describe the assumptions and ideas
- Identify interdisciplinarity considerations
- Use stakeholder knowledge

Excellence - Linked Projects

Describe any national or international research and innovation activities which will be linked with the project, especially where the outputs from these will feed into the project;

- Are there synergies or complementarities?
- How do you ensure an exchange with these
- projects/results?
- What is the state-of-the-art? Are there previous results you build on (e.g. publications, patents, previous EU project)?

Excellence - Methodology

Explain the overall methodology

- Methodology is not Work Plan (many proposals use a PERT, is OK)
- Include demonstration strategy

Describe if the project considers genders issues **during** the research (here is not if the consortium in gender balanced)

Excellence - Validation and Demo sites

- Be credible! Show the evaluator how you will demonstrate your solution
- Be elegant in presenting it
- Comply with the call topic requests
- If you have real demo sites MAKE IT COUNT!

Excellence - Validation and Demo sites

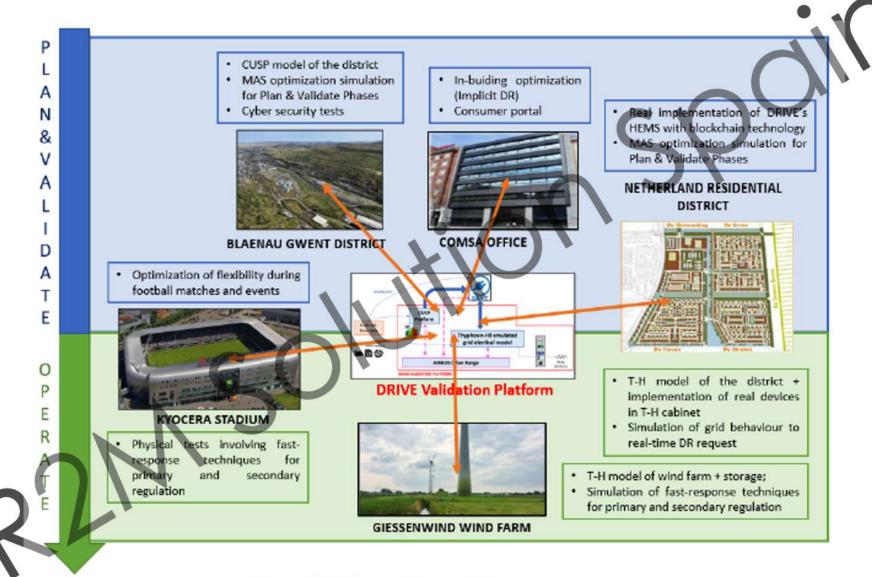


Figure 26: Map of the validation activities

Excellence - Methodology - TIPS

This is the chance to demonstrate the
 excellence of the consortium...list all excellent/
 ground breaking technologies you will be
 applying ...and why you have composed it this
 way

Excellence - Methodology - TIPS

- Where relevant, describe how sex and/or gender <u>analysis</u> is taken into account in the project's content.
- NOT: how many women and men work in your project
- BUT: Differences in your research area between female and males, and how do you address these differences in your project

Excellence - Ambition

Describe the innovation potential (e.g. ground-breaking objectives, novel concepts & approaches, new products, services or business and organizational models) which the proposal represents.

Where relevant, refer to products and services already available on the market. Please refer to the results of any patent search carried out.

Excellence - Ambition - TIPS

- Possible to break down into several subareas:
 What is the state of the art in this field?
- How does your project go beyond this state of the art?
- Don't write endless pages on the state of the art stay reader friendly! Focus on YOUR project

Stress the AMBITION of the project!

But: don't be overambitious and unrealistic!

Excellence - Ambition - TIPS

- Where/What is your innovation? (sometimes difficultoverlaps with ambition in previous subchapter...)
- Prove your "freedom to operate" and that you know the market
- Are there existing similar patents in this field?
- Would this hinder your project freedom?
- Or do you own the patents yourself?



How to write part per part the IMPACT section in an H2020 Energy and Transport grant application with emphasis on examples from winning projects

50 Min. + 14:40 - 10MIN. QA 15:40

key strategies for making your impact competitive

- Ensure the project will meet each of the "expected impacts" outlined in the call text (how to do this is
 explained in the next section)
- Identify further impacts not outlined within the call, which complement or extend the expected impacts and can easily be achieved within budget (e.g. that would enhance innovation capacity, create new market opportunities, strengthen competitiveness and growth of companies, or address environmental or social issues linked to your research). Consider also identifying intermediate impacts that will arise during your pathway to impact e.g. conceptual, attitudinal, cultural or capacity building impacts, upon which you would build more instrumental expected impacts
- Make sure your proposal is challenge-led and links to the expected impacts for your call throughout the
 proposal, not just in the sections dedicated to impact. Make sure that each of the impacts is linked to
 research in your work programme
- Make your impact goals specific and measurable by identifying indicators that will demonstrate progress towards and/or achievement of each impact goal. It is common for researchers to identify indicators of progress towards impact that reflect the success of activities designed to generate impact, but that do not actually say anything about whether or not the expected impact has been achieved. Make sure you have the means of measuring each indicator, including time, expertise and resources, and budget accordingly. Make sure indicators are robust and reliable, and will convincingly demonstrate causality, showing conclusively that your research contributed to the impacts observed. Consider identifying baselines and milestones. Link indicators to goals in a table.

Guidelines

Only
information
that applies
to the
proposal and
its objectives

Strengthening the competitiveness and growth of companies by developing innovations meeting the needs of European and global markets

Any other environmental and socially important impacts

The expected impacts set out in the work programme, under the relevant topic

Describe how your project will contribute to: Describe any barriers/obsta cles, and any framework conditions

Improving innovation capacity and the integration of new knowledge

Determine
whether and
to what
extent the
expected
impacts will
be achieved

Use quantified indicators and targets.

Impact- Methodology

Our approach to the impact is based upon:

- Creating a coherent "red thread" between the scientific and technical objectives (Excellence), the expected impacts (Impact) and work program tasks and WPs (Implementation).
- Having worked examples, tables with data and KPIs that are clear, specific, measurable and verifiable
- Developing initial individual and joint exploitation plans coupled to exploitation channels and levers to multiply impact
- Generating strong communication and dissemination plans that leverage consortium, EU and external resources



Impact - Expected Impacts

- Being as specific as possible
- Relation to the impact from the call
- Include substantial impacts not from the call

SUMMARY OF CALL EXPECTED IMPACTS AND RELATED PROJECT ACTIONS

| Call expected impacts | How the proposal addresses the impact | Corresponding deliverable and Work Package | Partner(s) that will benefit | Concrete ways in which the benefit will materialise |
|--|---------------------------------------|--|------------------------------------|---|
| The supported projects are expected to reduce costs and improve performance of renewable fuels for aviation and shipping regarding the efficiency, the environment and society | | | | |
| The proposed solution is expected to contribute to achieving European leadership in this area. | | | | |

Impacts not in the call

Main **QUANTIFIABLE** proposal impacts, highly related to the KPI defined in the dedicated task

KEY EXPECTED IMPACT 1

Description, references to proposal STOs and Tasks, graphs

KEY EXPECTED IMPACT 2

Description, references to proposal STOs and Tasks, graphs

KEY EXPECTED IMPACT 3

Description, references to proposal STOs and Tasks, graphs

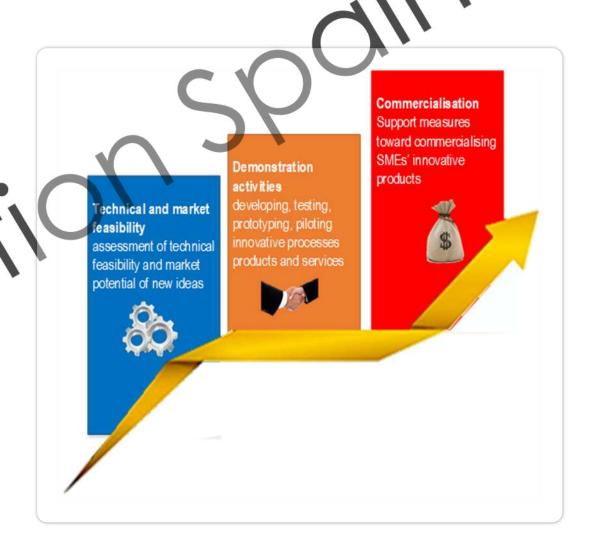
Improving innovation capacity and the integration of new knowledge Strengthening the competitiveness and growth of companies

Impact - Barriers to achieve impacts

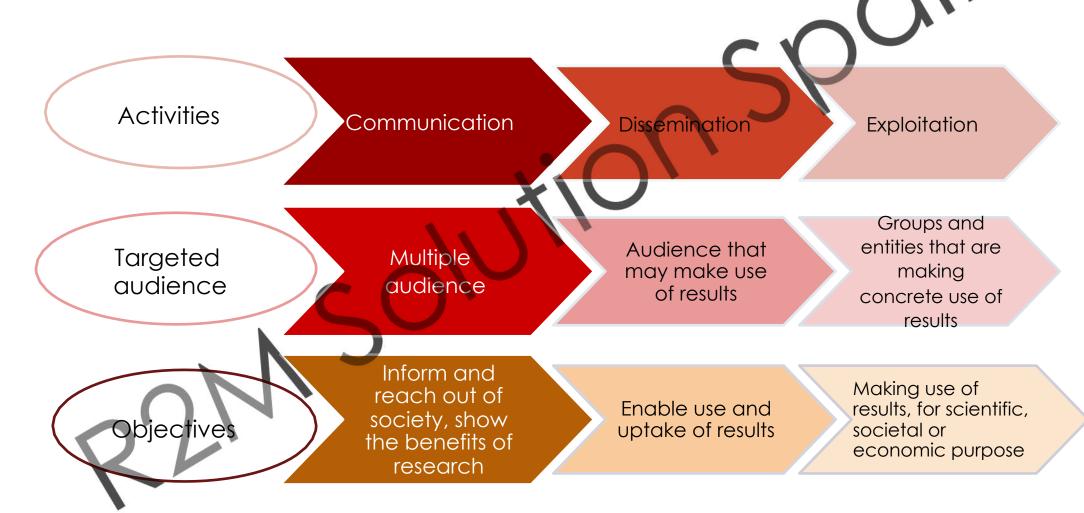


PATH TO MARKET





Communication and Dissemination Planning



Description of the preliminary exploitation vision of each partner

UNIVERSITIES

(knowledge, education, training and academic dissemination)

RESEARCH TECHNICAL ORGANISATIONS

(close to market solutions development, technology transfer and consulting support focus)

TECHNOLOGY PROVIDERS

(ICT, smart devices, blockchain, app developers)

END USERS

(ESCOs, ENgineering Companies, etc.



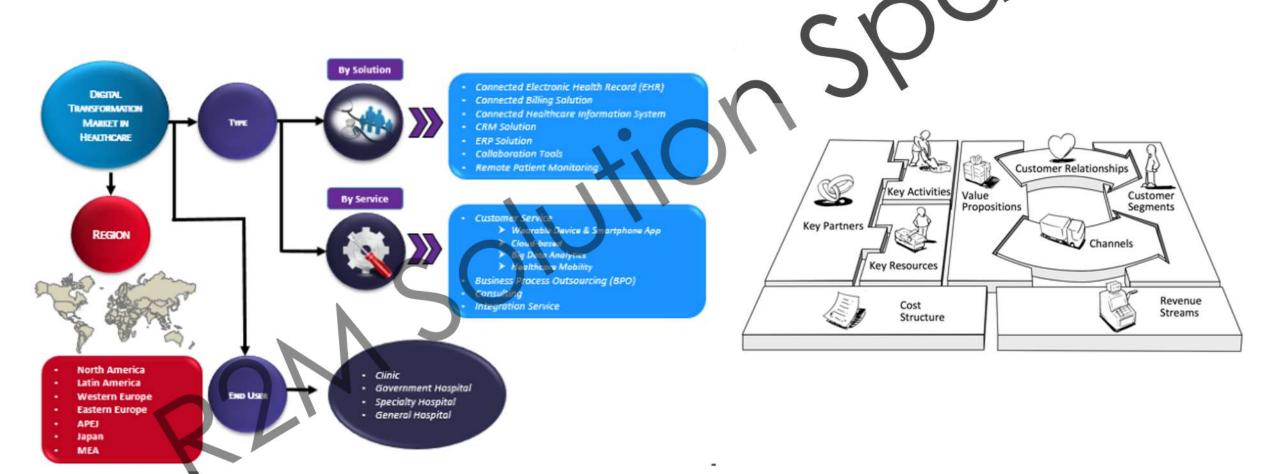


Why is it innovative?

Exploitation vision



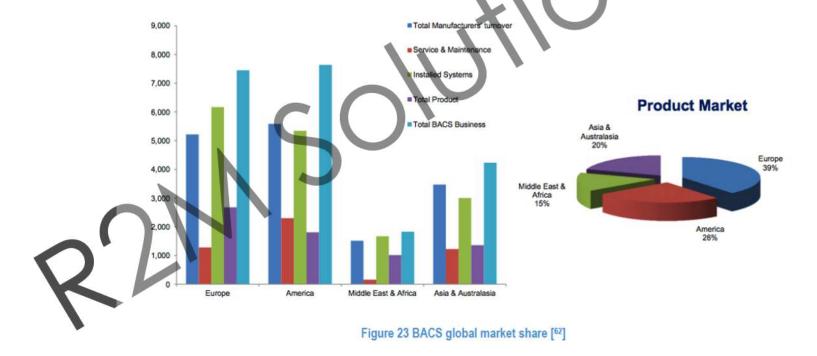
Market Analysis and Business Modelling



Market Analysis and Business Modelling

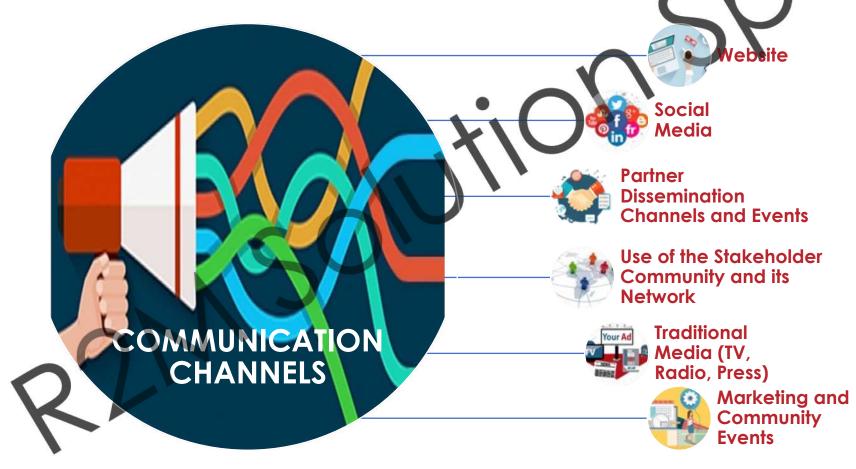
TABEDE pre-market analysis

TABEDE solution market is known as the Building Automation and Control System (BACS) Market. According to the new market research report on BACS, the building automation and control system global market is expected to reach EUR 100.60 billion by 2022, at a CAGR of 10.6% between 2016 and 2022⁶¹. The ability of the building automation system to increase the energy efficiency and enhance the security and safety in buildings is one of the major driving factors for the market. Moreover, the advancements in the wireless communication technologies and convergence of IoT and building automation further drive the growth of the building automation system market. Within this market, Europe has the highest market share with 39% of the BACS product market, as shown in Figure 23.



Communication and dissemination activities

 Description of the main channels and strategies for a highly impact communication and dissemination activities



Impact - Measures to Maximise Impact

Communication and dissemination activities

 Description of the main channels and strategies for a highly impact communication and dissemination activities



Take home messages

For 2.1:

- What is the benefit of your project? (the benefit for SMEs becomes more and more important!)
- Think about the expected impact in the topic text / work programme
- Who are the users of your results?
- How will your project/results strengthen the competitiveness?
- What is the social / societal benefit?
- How will the project support EU-policies?

Take home messages

For 2.2:

- Adapt your dissemination strategy to the different needs of your target groups (be creative!)
- For exploitation planning: include your business partners
 / dissemination experts
- Don't forget about IP-protection and datamanagement
- Think about an appropriate communication concept!

Tips for your proposal

1. Be Relevant

Read the call text carefully and deliver what they are asking for. This cannot be stressed enough (it is already mentioned in some of our other blog posts!). This is not just in terms of science or methodology but also when writing the impact section of the proposal. Use the words from the text to show that you have read and understood what challenges you should be tackling. "Community building", "stakeholder engagement" and "Open Source" are not just buzzwords you should include in your proposal text, but have meaning behind them. This can be different for different projects; a healthcare project may want to form patient focus groups and a Big Data project may make provide training to end-users of the data to be able to use it. These are both forms of stakeholder engagement (with some community building and Open Source relevant here too!).

2. The "Just-Right" Rule

Even though you may desire to demonstrate your stupefying and inordinate penchant for superfluous vocabulary to assert your mastery of the principal impact challenges specified by the H2020 call transcription, this would ultimately impair the statement that you are endeavouring to make.

The opposite is true too.

The two juxtaposed examples above are the "don'ts" in writing the impact section. Language too complicated or sentences too simple will not convey your message in the way that will result in a successful project. A happy medium is what is called for: language that is simple yet conveys impact and excellence of your project.

Tips for your proposal

3. Convince your evaluator

Be assertive. Your impact will "make a difference in (insert relevant field here)". Your methods of achieving impact are "beyond state-of- the-art". Back these assertive statements up with proof and you have now confidently presented your work. This assurance in the quality of your impact conveyed in the proposal will show the evaluator that you (and your consortium) really believe in your project.

4. Don't Exaggerate

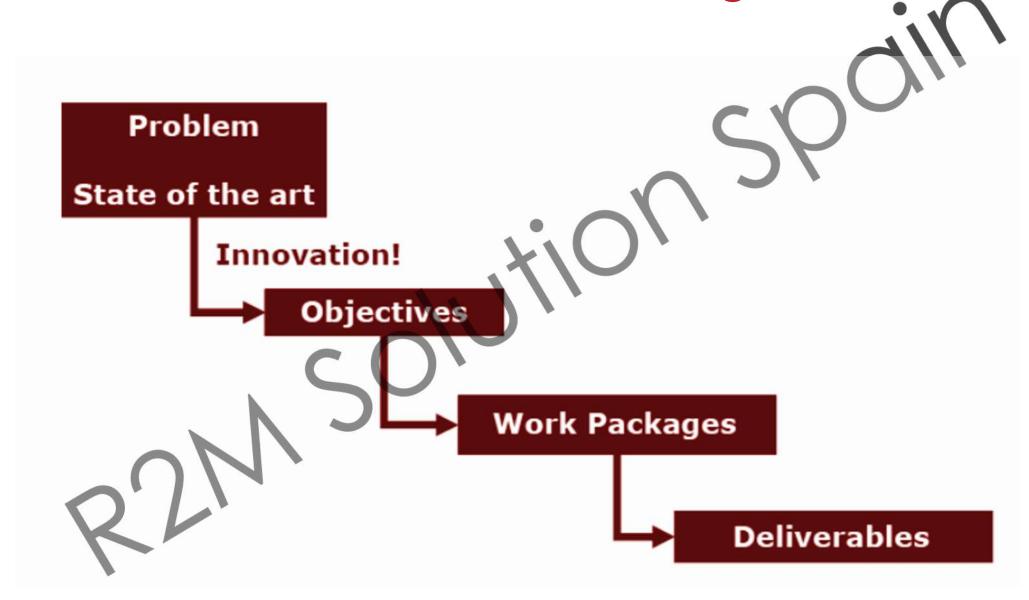
This is a caveat to the point above. No your project won't make everyone understand how to code by 2020. It probably won't get every single person to believe in climate change at the end of the project either. There is no point in exaggerating or inflating the claims that you are making for your project or impact. The evaluator is an expert in the scientific or societal field²: they know exactly what impact can and cannot be achieved in the timeframe and the methodology you are using.



How to write part per part the IMPLEMENTATION section in an H2020 Energy and Transport grant application with emphasis on examples from winning projects

50 Min. + 16:00 - 10 MIN. QA 17:00

Line of reasoning



Expectations of the EC

- Brief presentation of the overall structure of the work plan
 Timing of the different work packages and their components
 (Gantt Chart)
- Detailed work description
 - A description of each work package (table 3.1a)
 - A list of work packages (table 3.1b)
 - A list of major deliverables (table 3.1c)
- Graphical presentation of the components showing how they inter-relate (Pert Chart)

Table 3.1a: Work package description (For each work package):

| Work package number | Start Date or Starting Event |
|--|---|
| Work package title | |
| Participant number | |
| Short name of participant | |
| Person/months per participant: | Objectives • clear and comprehensible |
| Objectives | realistic and feasible (personnel, technical equipment, financially, in time) (SMART) Sub-objectives of main objective (project) |
| | Tasks |
| Description of work (where ann op participants | Detailed description of what you want to do to achieve the projects objectives: Result: Deliverables |
| | Deliverables |
| Deliverables (brief description and room | Results of WP |
| | Coherent labelling: e.g. D 4.2 |
| | |

It is widely recognised that increasing flexibility is key for the reliable operation of future power systems with very high penetration levels of Variable Renewable Energy Sources (VRES).1 Flexibility is the ability of a power system to maintain continuous service in the face of rapid and large swings in supply or demand. This WP will develop activities in order to.....

WP4 focuses on the design and implementation of an ICT platform for demand response at district level. This general objective translates into the following sub-objectives:

- . To design the multi-agent district management platform for demand response, considering the outcomes of WP2
- . To implement implicit DR protocols for community energy management
- . To implement explicit DR protocols to provide different ancillary services (frequency, voltage, reactive power, energy balance) to the DSO

Implementation - WPs and Deliverables

WPs and Tasks:

- Break down project into smaller components
- Can be divided by activity of s a project management approach (e.g. Plan - Do - Check - Act)
- Do not include concept items in tasks.
- Avoid lengthy tasks
- Include partners roles in the task (short sentence)

Deliverables:

- Consistent with the work performed
- Timely scheduled. Avoid high peaks of deliverables (e.g. all in M18)
- Provide short description

- Definition: **Deliverable**
- Distinct output / concrete result of the project
- Necessary to complete a task / WP
- meaningful in terms of the project's overall objectives
- constituted by a report, a document, a technical diagram, software etc
- Every deliverable has to be delivered

List of deliverables

| Deliverable Number ¹⁴ | Deliverable Title | Lead beneficiary | Type ¹⁵ | Dissemination level ¹⁶ | Due Date (in months) ¹⁷ |
|-------------------------------------|--------------------------------|------------------|--------------------|--|--|
| D8.1 | DRIvE Stakeholder Community | 8 - R2M | Report | Confidential, only for members of the consortium (including the Commission Services) | 10 |

Description of deliverables

D8.1 : DRIvE Stakeholder Community [10]

Database of project stakeholders to view, map and manage communication and exploitation channels in a strategic way. An update will be included within each periodic report. (T8.1)

Expectations of the EC

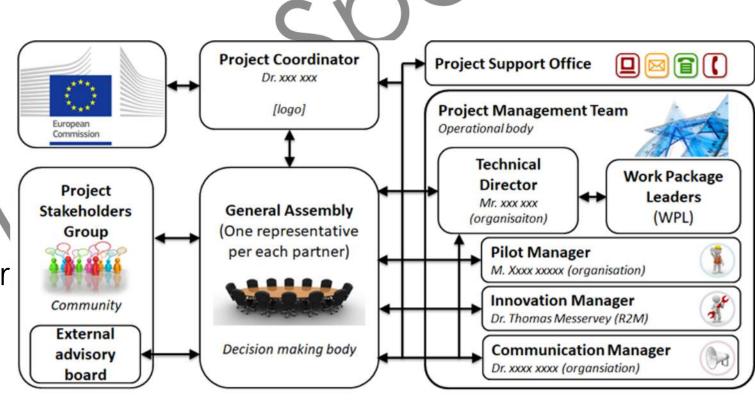
Describe any organizational structure and the decision-making (including a list of milestones)

- 3.2 Management structure and procedures
 - Clearly define: Who is responsible for what?
 - Who will decide what, how and when?
- How effective will the innovation management be addressed in the
- management structure and work plan?
- What will happen in case of conflict?
- What will happen, if there won't be any agreement on something?
- Who will decide then? Veto right?

Implementation - Management structure

Description on how the project will be managed, experience of the leaders

Decision making structure
Internal Communication
Quality control measures
Conflict resolution measures
Reporting
Planning and project monitor



Implementation - Milestones and Risks

Milestones

- Control points where go/no-go decisions are made
- Measurable and quantifiable
- Adequate in number to the project. Never too many

| one Odds Severity | | | WP | Means of Verification |
|-------------------|--|--|----|-----------------------|
|-------------------|--|--|----|-----------------------|

| MS4 | DRIvE stakeholder community reaches 100 relevant members across Europe | WP8 | 8 - R2M | 13 | List of DRIvE stakeholders made available to consortium (M12 GA) |
|-----|---|-----|---------|----|--|
| | | | | | |

Implementation - Milestones and Risks

Risks

- Issues that may harm project implementation.
- Risk reduction measures need to be planned
- Typical risks categories:
 - Management
 - Technical
 - Visibility and Communication/Dissemination
 - Business

1.3.5. WT5 Critical Implementation risks and mitigation actions

| Risk number | Description of risk | WP Number | Proposed risk-mitigation measures |
|----------------|--|---|---|
| 1 | Delay in achieving milestones / Need for assignment of unanticipated tasks. | WP1 | Flexible planning of interim milestones and constant review of progress based on internal draft deliverables release. |
| 2 | Communication problems among partners. Disagreement among consortium partners | WP1 | Reporting on communication healthiness as part of task/WP/Project monitoring. |
| 3 | Losing critical staff or partners at crucial point of the Project. | WP1, WP2, WP3, WP4, WP5, WP6, WP7, WP8 | Consortium has been built in order to ensure some level of overlapping in competencies. Most critical skills (e.g. grid simulation) are available in at least two partners. |
| | | | Control State of the Control of the |

Implementation - Consortium as a whole

- Demonstrate all necessary skills are present
- Demonstrate all impacts can be reach given partners expertises
- Show what every single partner has to contribute to the project
- Demonstrate the right balance between RTOs, Academia, Industry, SMEs, and public organisation according to project goals

Implementation - Resources to be Committed

- Demonstrate how the resources are used in terms of
 - Effort
 - Money
- If any partner has 'Other Direct Costs' higher than 15% of the Personnel Costs, a table detailing these 'OTH' needs to be introduced

| 14/R2M | Cost (€) | Justification |
|--------------------------|----------|--|
| Travel | 9 100 | 8 consortium meeting travels (€700 per travel) + 3 workshop trips (€700 per trip) + 2 dissemination events |
| Equipment | | |
| Other goods and services | 8 000 | Dissemination material, consumables |
| Total | 17 100 | |

4.1 Participants

4.2 Third parties involved in the project (including use of third party resources)

4.1 Participants

Expectations of the Commission

- a description of the legal entity and its main tasks, with an explanation of how its
 profile matches the tasks in the proposal (include partner number)
- a curriculum vitae or description of the profile of the people, including their gender, who will be primarily responsible for carrying out the proposed research and/or innovation activities;
- a list of up to 5 relevant publications, and/or products, services (including widely-used datasets or software), or other achievements relevant to the call content;
- a list of up to 5 relevant previous projects or activities, connected to the subject of this proposal;
- a description of any significant infrastructure and/or any major items of technical equipment, relevant to the proposed work;

4. Members of the consortium

4.2 Third parties

Beneficiaries: appropriate resources to implement the action

Third Parties – legal entity not signing the grant agreement

- Making available resources by means of contributions in kind
- By carrying out part of the work itself (should not be core tasks of research)

4. Members of the consortium

4.2 Third parties

- Contracts to purchase goods, works and services (Art. 10)
- Use of in-kind contributions provided by third parties against payment (Art. 11)
- Use of in-kind contributions provided by third parties free of charge (Art. 12)
- Subcontracting (Art. 13)
- Linked third parties (Art.14)







/r2m-solution



@R2MSolution



Turkey in Horizon 2020 Phase II Focused Group Training on: H2020 Green Deal Call Energy and transport topics (2,3,4,5)



Juan manuel espeche



Juan. Espeche@r2msolution.com



03-04/11/2020

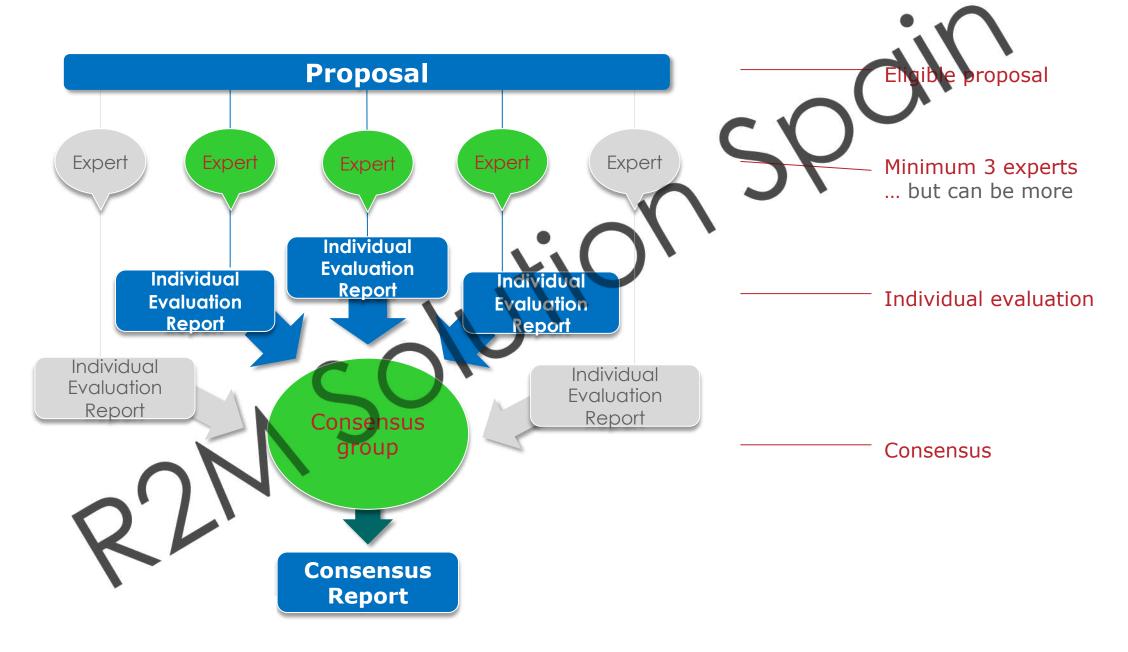




Familiarization with Evaluation Process and what makes a winning proposal based on examples from ESRs (tips and tricks based on evaluators comments, common mistakes)

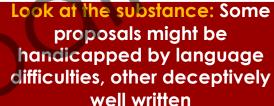
50 Min. + 12:00 - 10 MIN. QA 13:00

Evaluation Process



Individual evaluation

- You read the proposal and evaluate it against the evaluation criteria
 - Without discussing it with anybody else
 - As submitted not on its potential if certain changes were to be made



- Do not penalise applicants that did not provide detailed breakdown costs they are not required
- You disregard excess pages marked with a watermark
- You check to what degree the proposal is relevant to the call or topic
- You complete an Individual Evaluation Report (IER)
 - Give your view on operational capacity
 - Give comments and scores for all evaluation criteria (scores must match comments) 🧠



- Do not recommend substantial modifications
- You then submit the form and sign in the electronic system





Elements to be reflected in the evaluation

If a proposal

- Is only marginally relevant in terms of its scientific, technological or innovation content relating to the call or topic addressed, you must reflect this in a lower score for the "Excellence" criterion
 - No matter how excellent the objectives, approach,!
- Does not significantly contribute to the expected impacts as specified in the WP for that call or topic, you must reflect this in a lower score for the "Impact" criterion
- Would require substantial modifications in terms of implementation (i.e. change of partners, additional work packages, significant budget or resources cut...), you must reflect this in a lower score for the "Quality and efficiency of the implementation" criterion

Consensus group

- It usually involves a discussion on the basis of the individual evaluations
 - It is not just a simple averaging exercise
- The aim is to find agreement on comments and scores
 - Agree comments before scores!
 - If an applicant lacks basic operational capacity, you make comments and score the proposal without taking into account this applicant and its associated activity(ies)
- "Outlying" opinions need to be explored
 - They might be as valid as others be open-minded
 - It is normal for individual views to change
- Moderated by Commission/Agency staff (or an expert in some cases)
 - Manages the evaluation, protects confidentiality and ensures fairness
 - Ensures objectivity and accuracy, all voices heard and points discussed
 - Helps the group keep to time and reach consensus

Consensus report

- The rapporteur is responsible for drafting the consensus report (CR)
 - Including consensus comments and scores
 - In some cases, the rapporteur does not take part in the discussion
- The quality of the CR is paramount
 - It often remains unchanged at the panel stage
- The aim of the CR is to give:
 - A clear assessment of the proposal based on its merit, with justification
 - Clear feedback on the proposal's weaknesses and strengths

Avoid:

- Comments not related to the criterion in question
- Comments that are too short or too long or use inappropriate language you should explain what you mean in an adequate length and clear manner
- Categorical statements that have not been properly verified e.g. "The proposal doesn't mention user requirements" when there is a short reference...
- Scores that don't match the comments
- Marking down a proposal for the same critical aspect under two different criteria

The panel review

- Consists of experts from the consensus groups and/or new experts
- Ensures the consistency of comments and scores given at the consensus stage
- Resolves any cases where a minority view is recorded in the CR
- Endorses the final scores and comments for each proposal
 - Any new comments and scores (if necessary) should be carefully justified
- Prioritises proposals with identical total scores, after any adjustments for consistency
- Recommends a list of proposals in priority order

Proposals with identical total scores

- For each group of proposals with identical total scores, the panel considers first proposals that address topics that are not already covered by more highly-ranked proposals
- The panel then orders them according to:
 - First, their score for Excellence, and second, their score for Impact
 - Except for Innovation action, first their score for Impact and second their score for Excellence
- If there are ties, the panel takes into account the following factors:
 - First, the size of the budget allocated to SMEs
 - Second, the gender balance of personnel carrying out the research and/or innovation activities
- If there are still ties, the panel agrees further factors to consider:
 - e.g. synergies between projects or contribution to the objectives of the call or of Horizon 2020
- The same method is then applied to proposals that address topics that are already covered by more highly-ranked proposals

Key points about the review process

- 1. The reviewers are not direct extensions of the EC and its point of view. Because of this, reviewers do not directly reflect the mindset of the funding authorities, as many believe. While instructions for evaluation exist, we know from experience that there is an undocumented policy whereas reviewers can evaluate based on their interpretation of the call and requirements. As well, we've also heard of some reviewers who did not receive briefing for evaluation. Our experience enables us to know how to attend to such gaps and potential discrepancies in the review process.
- 2. The reviewers are limited in time when reviewing your application. It is reasonable to assume that they have more than one proposal to evaluate on the same day (it may even be 2-6 proposals per day). Generally their motivation is to complete their proposal review tasks as soon as possible.
- 3. Reviewers may experience an "emotional feedback" when reviewing your grant proposal. It is important to remember reviewers are only human. They approach a grant review process with a personal track record, unique experience and past in the field they are required to review. Whether consciously or subconsciously, this can lead them to feel positive or negative emotions towards the applications they are reviewing. Once there, positive emotions can lead them to look for and highlight positive aspects to support an overall positive decision. In contrast, negative emotions will do the opposite, resulting with a negative overall review. It is our experience that generally a reviewer's starting point is always positive when reviewing new applications. Therefore, our motivation is to keep this "emotional feedback" positive, rather than turn it into a negative one. A sharp, crisp concise and well written application can tremendously help!

Key points about the review process

- 4. The reviewers may not actually read your entire proposal text. Given the time constraints, reviewers typically do not read everything. They read what they have to in order to complete their evaluation task and look for answers in specific places in the proposal (which means knowing where to provide information is crucial). This brings us to the final point...
- 5. During the review process, the reviewers receive a list of pre-defined questions to answer in an electronic form. They are required to provide a mark per question and a short feedback text. This means they may be satisfied by looking for specific answers to the specific questions in specific places in your application.

Self-Evaluation Forms

- This form is made available to applicants who may themselves wish to arrange an **evaluation of their proposal** (e.g. by an impartial colleague) prior to final editing, submission and deadline.
- The aim is to help applicants identify ways to improve their proposals.
 The forms used by the experts for their evaluation reports will be broadly similar, although the detail and layout may differ.
- These forms are based on the standard criteria, scores and thresholds. Check whether special schemes apply to the topics of interest to you. The definitive evaluation schemes are given in the work programme.
- A self-evaluation, if carried out, is not to be submitted to the Commission, and has no bearing whatsoever on the conduct of the evaluation.

Self-Evaluation Forms

1. Excellence

Note: The following aspects will be taken into account, to the extent that the proposed work corresponds to the topic description in the work programme:

- · Clarity and pertinence of the objectives
- · Soundness of the concept, and credibility of the proposed methodology
- Quality of the proposed coordination and/or support measures

Comments:

Score 1: Threshold 3/5

2. Impact

Note: The following aspects will be taken into account:

- The extent to which the outputs of the project would contribute to each of the expected impacts mentioned in the work programme under the relevant topic
- · Quality of the propsed measures to:
 - exploit and disseminate the project results (including management of IPR), and to manage research data where relevant
 - communicate the project activities to different target audiences

Comments:

Score 2: Threshold 3/5

3. Quality and efficiency of the implementation*

Note: The following aspects will be taken into account:

- Quality and effectiveness of the work plan, including extent to which the resources assigned to work packages are in line with their objectives and deliverables
- Appropriateness of the management structures and procedures, including risk and innovation management
- Complementarity of the participants and extent to which the consortium as whole brings together the necessary expertise
- Appropriateness of the allocation of tasks, ensuring that all participants have a valid role
 and adequate resources in the project to fulfil that role.

Comments:

Score 3: Threshold 3/5

Total score (1+2+3) Threshold 10/15



Proposal Evaluation: Common Mistakes - Excellence

Score: 1.50 (Threshold: 3/5.00, Weight: -)

The following aspects will be taken into account, to the extent that the proposed work corresponds to the topic description in the work programme:

Clarity and pertinence of the objectives

The objectives of the proposal are clear.

The pertinence of the objectives to the topic is good. The proposal focuses on cost efficiency of the whole capture process. However, a significant proportion of the objectives focus on the development of renewable heat rather than on the core capture technology. This is a shortcoming.

It focuses more on developing a technology which was not the main topic of the call Soundness of the concept, and credibility of the proposed methodology

The concept is not sound because the development gap is too large between the two technologies, which is not convincing. This is a significant weakness.

The credibility of the methodology is poor, because the CSP part of the proposed system is emulated in the pilot capture system, rather than demonstrated. This is serious inherent weakness.

In trying to mix technologies, the risk is that the end result will not be credible

> If it's an IA asking for real demonstrators don't try replace for simulation or emulation. you can complement them.i.e Digital twins

Proposal Evaluation: Common Mistakes - Excellence

Extent that proposed work is beyond the state of the art, and demonstrates innovation potential (e.g. ground-breaking objectives, novel concepts and approaches, new products, services or business and organisational models)

The progress is not significant, as calcium looping is a well established technology and its advancement is minimal. The CSP component, which is a core technology in the concept, will be validated only at the lab scale and corresponds to TRL 4, which is not in line with the call text. This is a significant weakness.

FOLLOW the call topic requests regarding TRL level!!!

- The proposal provides a limited description of the state of the art.
 Furthermore, the progress beyond the state of the art is not sufficiently
- Scientific references are not sufficiently included with regard to the core technological components of the project.
- The S/T methodology as presented is generic and lacks sufficient detail.

It is also not adequately demonstrated that households would be prepared to accept remote intervention in the management of their household appliances or whether they are willing to make the initial investment in a "smart home" to potentially reduce their annual consumption of electrical energy.

CONSUMER ENGAGEMENT BECAME CRUCIAL IN SC3 CALLS!!

Proposal Evaluation: Common Mistakes - Impact

- 1. It is not well demonstrated how the targets would be reached
- 2. The proposal gives an **insufficient outline of the barriers** that could limit the impact
- 3. Impacts are not **convincingly substantiated** by relevant standards, indicators and metrics.
- 4. Failing to meet the target.
- 5. Outlook on market penetration is not very realistic.
- 6. Missing clear exploitation plan (individual and Joint)
- 7. Communication and Dissemination is not addressing all stakeholders
- 8. Not considering scalability and replicability plan
- 9. No business model supporting the solution
- **10.Unique selling points** with respect to the competition are not justified by sufficient technical data

Proposal Evaluation: Common Mistakes - Implementation

- 1. Task description lack details, the allocation of resources among participants is inadequately elaborated in work packages and the involvement of partners in the different activities is not sufficiently clear, justified nor balanced.
- 2. In several work packages, all partners have resources, but their role is not evident
- 3. Timing of several tasks is inconsistent
- 4. Important **risks** related to the difficulties on ensuring the case studies demonstration are not sufficiently considered
- 5. Deliverables lack specific performance goals and therefore are not developed to form a measurable outcome of a successful execution
- 6. The milestones and deliverables do not match.
- 7. Not clear how the existing expertise and infrastructure will be used for delivering the innovation to the market
- 8. The **risks** in relation to the technical performance of the product are not sufficiently addressed.
- 9. Engagement of subcontractors in the tasks and their selection procedure are not explained
- 10. Other direct cost are not justified

Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources

Complementarity of the participants within the consortium (when relevant)

Appropriateness of the management structures and procedures, including risk and innovation management



 There are only weak links between the objectives and the workplan. In some cases it does not become clear how the objectives will be addressed in each of the work packages.

• WPs are structured more as a single partners effort rather than a consortium effort.

• The **budget is disproportionately distributed** among partners.

Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources

Complementarity of the participants within the consortium (when relevant)

Appropriateness of the management structures and procedures, including risk and innovation management

Reviewer's comments

The roles of partners 6 and 8 appear overlapping

• More representatives from industry, regulatory authorities and patent groups would be desirable

• There is **no partner with strong competence** in XXX

 The coordinator seems to play a predominant role and the scientific integration of other partners in the proposal is not sufficiently demonstrated

Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources

Complementarity of the participants within the consortium (when relevant)

Appropriateness of the management structures and procedures, including risk and innovation management



Reviewer's comments

 Aspects of decision-making processes and conflict resolution mechanisms are not clear

 The structure would be strengthened by an external independent input (external advisory board) for the decisions

 A risk management section has been included into the proposal; however, it appears to have limited detail to address the potential problems that could occur.

ESR of successful proposals - Excellence

- 1. The concept is particularly adapted for large-scale deployment
- 2. The project will credibly contribute to the development of the solution
- 3. Complementary tools are convincingly addressed in the proposal
- 4. Regulatory, legal, data security and socio-economic aspects have dedicated tasks
- 5. Includes an Environmental impact assessments
- 6. Credibility is excellent because it follows R&D + Integration + Validation in REAL demo sites
- 7. Ad-hoc indicators are convincingly introduced into the project and will credibly allow the monitoring of progress towards objectives.
- 8. It is **convincing** that the system and all core components of the project are developed from **TRL5 to TRL6/7 or from TRL6/7 to TRL8**, which is fully in line with the call.
- 9. The consideration of **interdisciplinary approaches** is excellent because it combines engineering, business, law and data science and social sciences in an interactive manner from the outset.
- 10. The use of **stakeholder knowledge** is excellent because use of relevant stakeholder knowledge (e.g., utilities, energy consumers) is integrated into the project concept.
- 11. The **gender dimension** in the research and innovation content is explicitly and convincingly addressed.

ESR of successful proposals - Impact

- 1. The proposal present **quantifiable KPI** to assess the impact requested in the call topic
- 2. The proposal convincingly justifies how the results will be achieved
- 3. The **replicability** to other similar demo sites is highly convincing (3 demos + 5 followers)
- 4. The proposal includes a **convincing business case and strategy for the consortium to exploit** the project outputs, highlighting key exploitable results and individual exploitation strategies for each type of partner organisation
- 5. The **management of IPR** is well addressed, comprehensive and convincing, covering all necessary issues
- 6. The dissemination plan is effective, concise and stakeholder-oriented and includes an ambitious plan for workshops, conferences and extensive networking.
- 7. The proposal **identifies relevant target audiences** such as citizens, media consumers, prosumers, and various media channels including a website, social networks, media and press releases.
- 8. The **proposal present related impacts**, social, environmental, economic, political, etc

ESR of successful proposals - Implementation

- Task content is comprehensive and convincing, as it relates credibly to the objectives
- 2. Deliverables are well formulated and totally appropriate in number and content.
- The distribution of resources in terms of personmonths (PM) and budget is fully in line with their objectives.
- **4. Roles and responsibilities are comprehensively defined** and allocated, including an external advisory board with named members.
- **5. Procedures are defined** including all relevant aspects (decision making, monitoring, reporting, conflict resolution).
- **6. Risk management** is adequately addressed, covering technical, operational and management risks, including suitable mitigation measures.
- 7. The **complementarity of the participants is excellent**, because the consortium is composed of relevant complementary partners from different relevant sectors, such as local authorities, utilities, technology providers. There is no unnecessary duplication of competences.
- 8. The appropriateness of the **allocation of tasks and resources is excellent**. The resources have been convincingly explained and justified. All the participants have a valid role and adequate resource to fulfil their tasks.
- 9. The proposal includes sufficient budget (4% of the total) envisaged for the research and coordination effort associated with obstacles for innovation. This is excellent. A specific task (8.4) in the work plan will establish synergies with the "Clean Energy for EU islands" initiative.

- The proposal describes a management structure that itself is complex and not that easy to follow.
- The staff allocation versus justification of costs needs clarification.
- It was also pointed out by the reviewers that IPR management could have been described in more detail.
- The panel noted that **not all the partners are represented in the steering committee**. An appropriate representation of all the partners in a decision making body should be sought.
- The **gender aspect should have been better addressed**, and should be considered in the negotiation phase.

- However the management structure is somewhat too briefly mentioned in the proposal and a standard graphical representation and definitions of decisive positions including concrete names would have been useful.
- The plan for managing Intellectual Property and innovation-related activities arising from the project is fairly addressed. Whilst an IP manager has been appointed, new IP will be submitted to the General Assembly, where **only industrial partners have voting rights**.
- There is a significant weakness regarding the co-ordinating partner track record (recently founded) and as to whether they have the experience, capacity, capability and the necessary expertise to carry out their tasks and to act as project leader.
- The experience of the coordinator to lead international projects could have been better documented.

- The industrial participant plays a specific technical role, but should also be encouraged to play a stronger role in the strategic planning of the project.
- The **sub-contracting costs appear high** as they represent 20% of the project costs and should be better justified.
- The panel expressed some concern whether sufficient funds were allocated to the management of IP strategy.
- The resources for XXX are high in relation to the other partners and the rationale for this was lacking
- The time estimated for the computational part output seems significantly underestimated.

- According to the panel opinion, the conflict resolution scheme was not sufficiently addressed.
- The consortium as a whole is composed of a wide set of suitable partners. However, some topic **related expertise** as an example science of physical activity **is not fully evident from the proposal**.
- The budget allocation appears unbalanced.
- Milestones and deliverables in some cases overlap.
- A very complex management structure has been proposed and described with abundance of details. However, the concern is that the related complexity will have a negative impact on the timely flow of the project.
- The SMEs focus on very specific tasks with little relation to the other work packages.

Take home messages

- Remember to write the proposal for the reviewers convince them!
- Take the reader by the hand and guide him / her
- Create a logical link between objectives,
 workpackages and deliverables very important!
- •Do not work to fill the 70 pages! Work to get your ideas across!
- •Use the Self-evaluation form for RIA / IA

