

support

universidade de aveiro



theoria poesis praxis

research

H2020 fundamentals in 20' (or so...)

Research Support Office

Vice-Rectorate for Research and Doctoral School

University of Aveiro

September 2017

1



I want ...

- money to develop my research team
- money to sustain my existing team
- to be a partner on a European research project
- To lead a European consortium
- To build my European research network
- To start linking with industrial partners
- To develop a technology or develop a product
- To second my staff to industry and vice-versa
- to be internationally recognised for my research
- Etc...



Horizon 2020 Structure

Excellent Science

European Research Council (ERC)

Future Emerging Technologies (FET)

Marie Skłodowska Curie Actions (MSCA)

European Research Infrastructures

Researchers driven:

Excellent science is the foundation of tomorrow's technologies, jobs and wellbeing

Industrial Leadership

Enabling and Industrial Technologies

Access to Risk Finance

Innovation in SMEs

Industry driven:

Strategic investments in key technologies
Support to innovative companies

Societal Challenges

Health, Demographic Change and Wellbeing

Food Security, Sustainable Agriculture, etc.

Secure, Clean and Efficient Energy

Smart, Green and Integrated Transport

Climate Action, Resource Efficiency and Raw Materials

Inclusive, Innovative and Reflective Societies

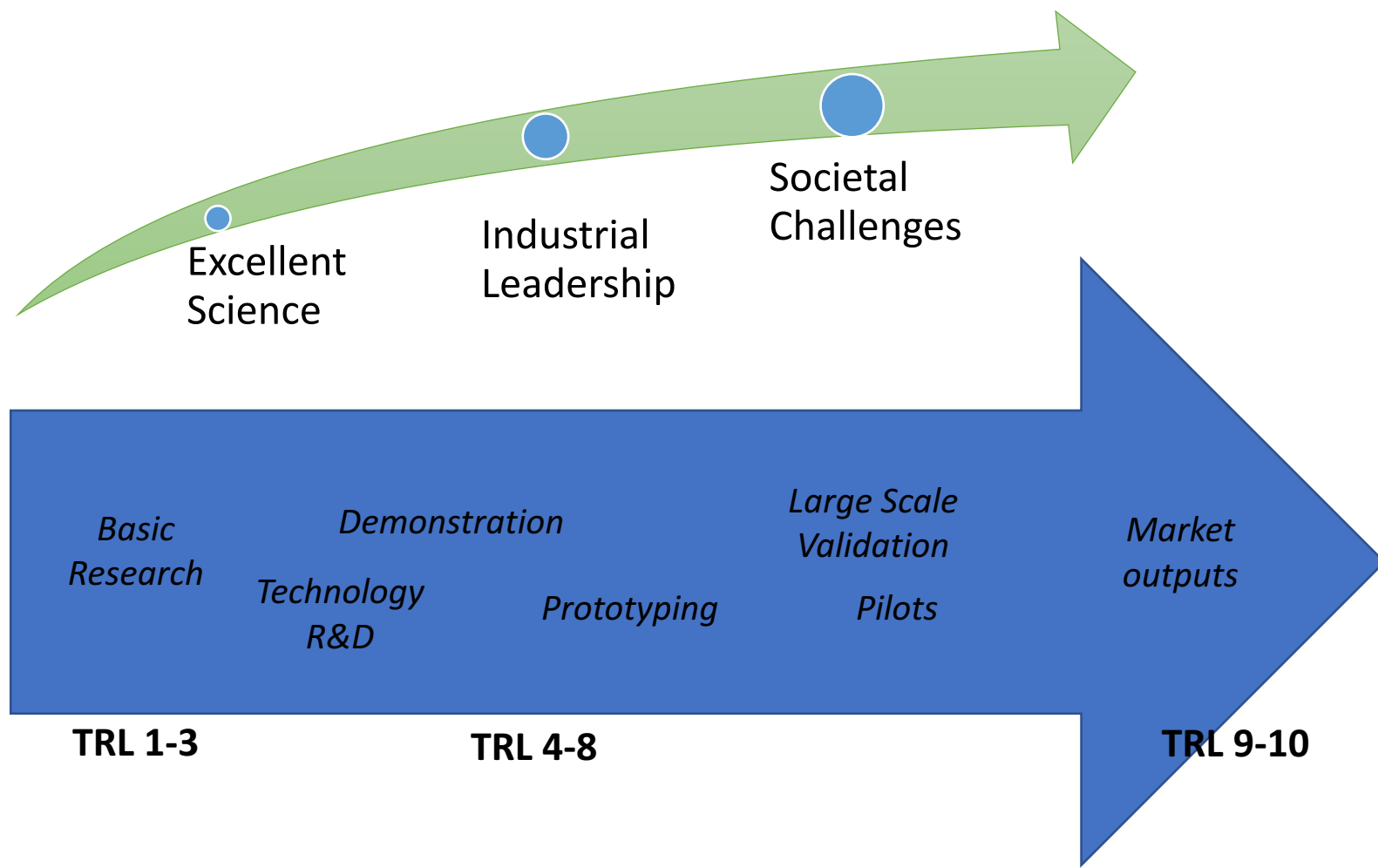
Secure Societies

Society driven:

Address concerns of citizens and society/EU policy objectives
Multidisciplinary collaborations

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

Coverage of the full innovation chain





Pilar 1 - ERC

Starting Grants

are designed to support excellent Principal Investigators at the early stage at which they are beginning their own independent research team or programme.

(2-4 years after PhD)

Cut-off dates:

PhD awarded from 1 January 2011

to

31 December 2015 (inclusive))

OPEN - deadline 17/10/2017

Consolidator Grants

(7-12 years after PhD)

Expected - 24/10/2017 to 15/02/2017

December 2010 (inclusive))

Advanced Grants

designed to support excellent Principal Investigators at the late career stage at which they have already established an independent research team

leadership and a significant record of research achievements in the last 10 years

closed

Synergy Grants— enable 2-4 Principal Investigators with complementary track records as appropriate to their career stage) and their teams to develop and address ambitious research problems.

OPEN deadline 14/11/2017

complementary skills, knowledge, and resources

OPEN 6/09/2017 to 16/01 | 18/04 | 11/09 2018

Proof-of-Concept bridging innovation up to €150,000

— earliest stage of marketable

Pilar 1 - FET

Future and emerging technologies shall support collaborative research in order to extend Europe's capacity for **advanced and paradigm-changing innovation**. It shall foster scientific **collaboration across disciplines** on **radically new, high-risk ideas** and accelerate development of the most promising emerging areas of science and technology as well as the Union wide structuring of the corresponding scientific communities."

FET Open

- Exploring novel ideas
- Individual research
- Early ideas
- Coordination and support action

FET Proactive

- Developing topics and communities – cluster of research projects
- Global System Sciences
- Knowing, doing being-cognition beyond problem solving
- Quantum simulation
- Towards exascale high performance computing

FET Flagship

- Tackling grand interdisciplinary science and technology challenges
- Graphene
- Human Brain (HBP)
- *Support for Flagships*

Open, light and agile

Roadmap based research



Pilar 1 - MSCA

ITN - Innovative Training Networks	<p>Support for doctoral and early-stage training European Training Networks (ETN), European Industrial Doctorates (EID), European Joint Doctorates (EJD)</p> <p><i>Indicative dates 12 Oct 2017 – 17 jan 2018</i></p>
IF- Individual Fellowships	<p>Support for experienced researchers undertaking international and inter-sector mobility: European Fellowships and Global Fellowships Dedicated support for career restart and reintegration</p> <p><i>Indicative dates 12 Apr 2018 – 12 set 2018</i></p>
RISE - Research and Innovation Staff Exchange	<p>International and inter-sector cooperation through the exchange of staff</p> <p><i>Indicative dates 22 nov 2017 – 21 mar 2018</i></p>
COFUND - Co-funding of regional, national and international programmes	<ul style="list-style-type: none"> - Doctoral programmes - Fellowship programmes <p><i>Indicative dates 12 apr 2017 – 27 sept 2018</i></p>

Host-driven!

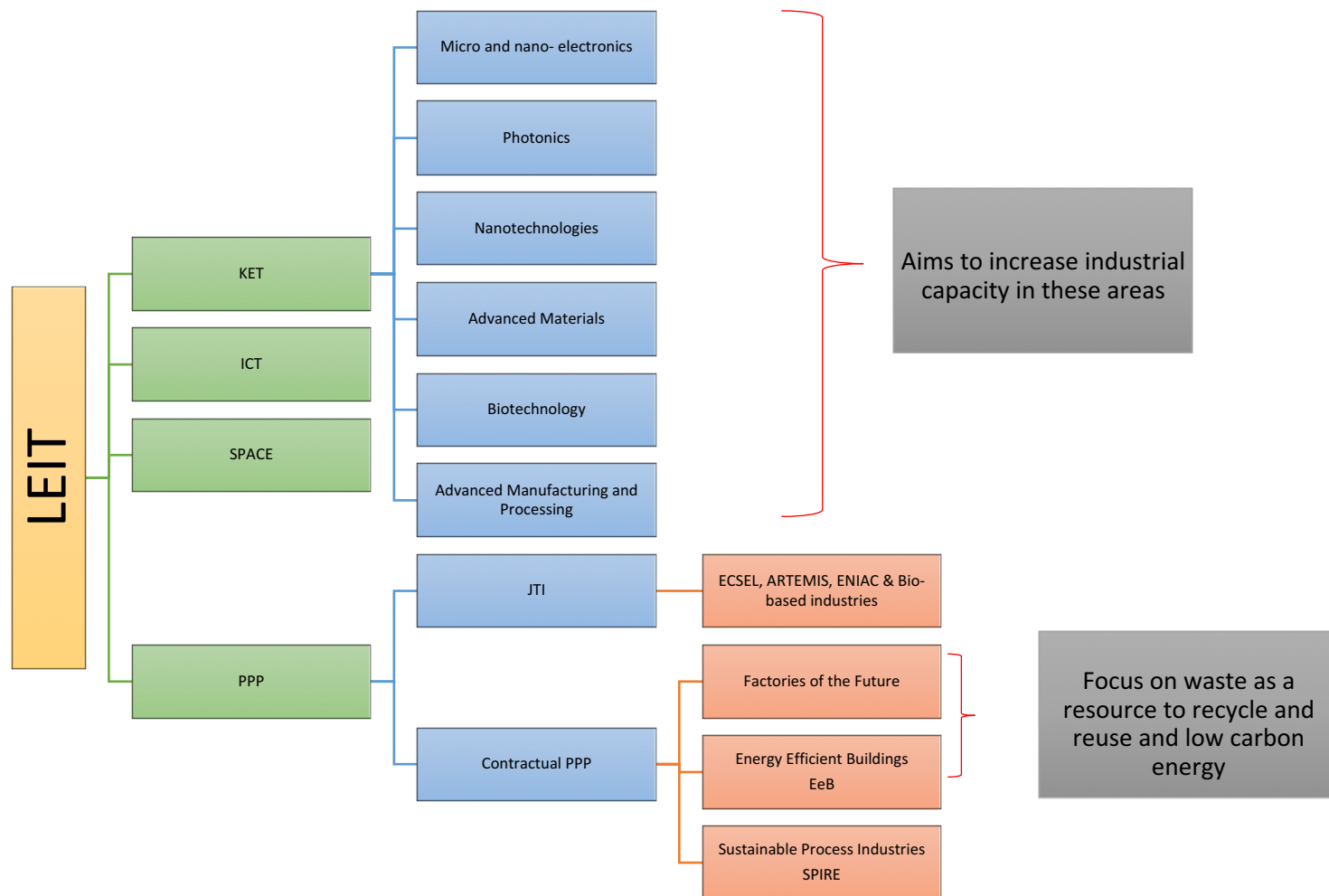
Individual-driven!

Host-driven!

Institutional
(strategic, only
50% funding)



Pillar 2 – LEIT- Leadership in Enabling and Industrial Technologies

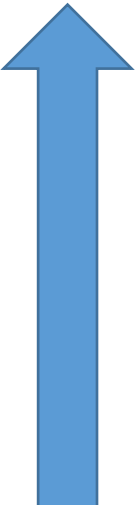


Pillar 3

- ✓ **SC 1- Health, demographic change and wellbeing**
helping EU citizens to lead longer and healthier lives
- ✓ **SC 2 - European Bioeconomy Challenges**
investment for a safe, secure food supply, sustainable agriculture and forestry, marine and maritime and inland waterway research
- ✓ **SC 3- Secure, clean and efficient energy**
e.g., efficient use of resources to create affordable green electricity
- ✓ **SC 4- Smart, green and integrated transport**
development of more intelligent and safer transport systems
- ✓ **SC 5- Climate action, resource efficiency and raw materials**
efficient use of resources for protection of our planet
- ✓ **SC 6- Europe in a changing world**
inclusive, innovative and reflective societies
- ✓ **SC 8- Secure societies**
protecting freedom and security of Europe and its citizens

Two approaches to funding

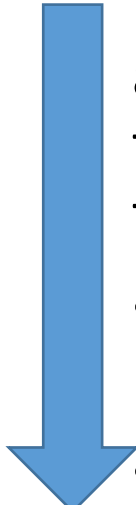
Bottom - UP



You come up with a research idea and apply for funding through the Excellent Science schemes; e.g.

- European Research Council (ERC)
- Marie Skłodowska-Curie Schemes (MSCA)
- Future and Emerging Technologies (FET)

Top - DOWN



The EU define specific topics and your idea has to fit within their remit in order to be able to apply.

- Industrial Technologies (e.g. ICT, Biotech)
- Societal Challenges (e.g. Health, Secure Societies, Europe in a Changing World, Food-Agri-Marine)

Common Feature : You need partners!

- Most EU funding (except ERC) requires a consortium of European partners.
- The size of the consortium varies depending on the type of action funding the project, and the scope of the call, e.g. for standard research projects, a minimum of three legal entities from different member states or associated countries
- Often require partners with particular competences, facilities or experience
- Cross-sectoral collaboration is particularly encouraged

Where to start?

Horizon 2020 is divided into 3 pillars within each pillar there are various themes for each theme there is a Work Program in each Work Program there are several calls and topics within each topic there are several actions

From the WP to the proposal

Work Programme

Topics

- Challenge
- Focus
- Impact

Actions

- Research & Innovation
- Innovation
- Coordination and Support



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RESEARCH & INNOVATION

Participant Portal

European Commission > Research & Innovation > Participant Portal > Calls

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 Internal Security Fund - Police
 Justice Programme
 Pilot Projects & Preparatory Actions
 Promotion of Agricultural Products
 Research Fund for Coal & Steel
 Rights, Equality and Citizenship Programme
 Union Civil Protection Mechanism

Participant Portal Grant Management Services may experience issues with Legal Entity and Bank Account validations on Monday, 25.09.2017, from 20:00 until 21:30 (CET). We apologise for any inconvenience this may cause.

Calls for Proposals

Horizon 2020
 Advanced search for topics
 Calls for tenders on TED

☐ Excellent Science
☐ European Research Council (ERC)
☐ Future and Emerging Technologies (FET)
☐ Marie-Sklodowska-Curie Actions
☐ Research Infrastructures
☐ Industrial Leadership
☐ Leadership in enabling and industrial technologies (LEIT)
☐ Information and Communication Technologies

Status ☒ Calls with forthcoming topics ☒ Calls with open topics ☐ Calls with only closed topics

Sort by ☐ Call title ☐ Call identifier ☒ Publication date

Filter a call [FILTER](#)

Excellent Science Call for proposals for ERC Proof of Concept Grant ERC-2018-PoC Publication date: 06 September 2017	Science with and for Society EU Prize for Women Innovators 2018 H2020-SWFS-Prize-2017-35 Publication date: 05 September 2017	Excellent Science Call for proposals for ERC Synergy Grant ERC-2018-SyG Publication date: 24 July 2017
Excellent Science Call for proposals for ERC Starting Grant ERC-2018-STG Publication date: 24 July 2017	Societal Challenges H2020-JTI-IMI2-2017-12-two-stage H2020-JTI-IMI2-2017-12-two-stage Publication date: 19 July 2017	Societal Challenges H2020-JTI-IMI2-2017-11-single-stage H2020-JTI-IMI2-2017-11-single-stage Publication date: 19 July 2017

FP7 & CIP Programmes

The topic Structure

Call identifier & Title

It establishes the context, the problems to be solved, the need for intervention

Further explores the problem, specifies the focus and boundaries of the action, but without detailing on possible approaches

LC-SFS-03-2018: Microbiome applications for sustainable food systems

Specific Challenge: The EU food system is an important part of the economy and society in Europe. Given the current context of societal, environmental and economic changes, there is need for constant improvement in terms of productivity, quality, safety, market orientation, adaptability, and international competitiveness. Knowledge of the potential of microbial systems, or microbiomes, throughout the food chains, is a promising means to this end. Microbiomes are known to regulate the productivity and health of major food sources such as plants and animals of both terrestrial and aquatic origin, therefore playing a major role in food and nutrition security. They also play a major role in food and feed processing and metabolism in different organisms throughout the evolutionary scale, ultimately influencing human health. A better understanding of the microbiomes associated with the food system¹⁵ would help address a number of key societal challenges including food and nutrition security, health and wellbeing, food waste management, climate change adaptation and mitigation.

Scope: Proposals¹⁶ shall focus on concrete microbiome applications which are of benefit to the food system. Building on knowledge already accrued from the isolation and characterization of microbiota associated to food production systems (plants, soils, animals, marine), proposals should look into ways to improve the quantity, quality and safety of the food we produce and consume in Europe. Microbiome applications in the treatment of food waste and alternative uses which promote sustainability and circularity are also included in the scope. Proposals are expected to develop holistic approaches across all stages of the food system from fork to farm including aquatic (marine and fresh water) resources. Activities shall also aim at increasing knowledge and applications derived from the marine microbiome for the development of new products, services or processes for food and health, while contributing to climate change mitigation. The inter-relations among microbiomes from different components across food chains - from soil to plants, animals, the marine and the human gut - and their impact on food and nutrition security and health shall also be considered. International co-operation, transdisciplinary research, and integration of SSH and RRI aspects to ensure long-lasting implementation of the results are encouraged. Activities shall build on existing data and knowledge on the microbiomes associated to food production



The topic Structure

Description of the key elements to be achieved in the challenge in question

bioeconomy

and processing systems, including results of EU funded projects in FP7 and Horizon 2020. Activities shall optimise the use of pre-existing databases and research infrastructures (including the distributed and virtual ones) and the opportunities granted by big data management tools, thus ensuring interoperability, standard methods and enhanced networking. The interdisciplinary and cross-sectorial nature of the project should also apply to training activities improving the professional skills and competencies and supporting the creation of new jobs in the food sector and the bioeconomy.

The Commission considers that proposals requesting a contribution from the EU of the order of EUR 10 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: In the framework of SDG goals no 2, 3, 9, 12 and 15, the EU's Bioeconomy Strategy 2012, and the FOOD 2030 SWD¹⁷, and the Blue Economy communication¹⁸, proposals should explain how activities included are expected to:

- Use microbiomes to strengthen and future-proof our food system. Raise awareness of the potential behind Microbiomes from terrestrial and aquatic environments in transforming the food system;
- Bring to market new and cost-effective commercial applications to assist different stages and processes throughout the food chains, by 2025;
- Improve overall knowledge of microbiomes from land and seas towards the market needs in areas where applicability and readiness is not visible;
- Improve overall sustainability, including climate change mitigation, and innovation capacity of the food system through the use of microbiome applications and knowledge;
- Move available solutions from TRL 5/6 to TRL 7.

Type of Action: Innovation action

The conditions related to this topic are provided at the end of this call and in the General Annexes.



Types of Action, Funding Rates and so on...

Action Type	Applicants	Activities funded	Eligibility	Funding	overheads
Research and Innovation Actions – RIA (collaborative projects)	Research Institutes, Higher Educations Institutions, Companies	R&D; Innovation; Management; Others (training, dissemination & exploitation)	3 legal entities established in Member States or Associated Countries that are different and independent of each other	100%	25% (over direct costs, excluding subcontracting)
Innovation Actions – IA (collaborative projects)	Institutos de Investigação, Instituições de Ensino, Empresas	R&D; Innovation; Management; Others (training, dissemination & exploitation)	3 legal entities established in Member States or Associated Countries that are different and independent of each other	70% (100% for non profit entities)	25% (over direct costs, excluding subcontracting)
Coorsination and Support Actions – CSA	Research Institutes, Higher Educations Institutions, Companies	Management; Networking; Others (training, dissemination & exploitation)	1 legal entity established in Member States or Associated Countries	100%	25% (over direct costs, excluding subcontracting)
SME instrument	SME (subcontracts as a possibility)	Innovation; Management; Others (training, dissemination & exploitation)	1 SME established in Member States or Associated Countries	70%	25% (over direct costs, excluding subcontracting)



Countries

Eligible: Member States or Associated Countries, developing countries, international entities with European interest

Non- eligible – BRICS, Japan, USA, Canada, Australia (can participate but without funding)

Funding may be provided if the participation is essential or if there is a bilateral agreement between EC and the country/institution

Eligible Costs

Eligible :

- ✓ HR
- ✓ Equipment, other services and goods acquisition
- ✓ Subcontracting
- ✓ Overheads (25%)

The form

Part A: administrative data , (online)

- ✓ General information
- ✓ Administrative data
- ✓ Budget
- ✓ Ethical Issues Table



Proposal Submission Forms
Directorate-General for Research and Innovation

Topic: _____ Type of action: _____
Call identifier: _____ Acronym: _____

Proposal title: _____
(For 200 characters (with spaces). Must be understandable for non-specialists in your field.)

Duration in months: _____
Estimated duration of the project in full months.

First keyword 1: _____
Free keywords: Enter any words you think give extra detail of the scope of your proposal (max 200 characters with spaces).

Free keywords: _____
Enter any words you think give extra detail of the scope of your proposal (max 200 characters with spaces).

Abstract
At summary (max 2,000 characters, with spaces) to clearly explain the objectives of the proposal how they will be achieved their relevance to the work programme. I be used as the short description of the proposal in the proposal process and in communications with the programme management committees and other interested parties. Do not include any confidential information. Use plain language, avoiding formulae and other special characters. The proposal is written in a language other than English please include an English version of this abstract in the Technical Annex.

Abstract: _____

Is this proposal (or a very similar one) been submitted in the past 2 years in response to a call for projects under the 7th Framework Programme, Horizon 2020 or any other EU programme(s)?

Please give the proposal reference or contract number: _____



The form

Part B: Technical Description (word template available @ participants portal; upload pdf)

Excellence

- 1.1 Objectives
- 1.2 Relation to the work programme
- 1.3 Concept and approach
- 1.4 Ambition

2. Impact

- 2.1 Expected impacts
- 2.2 Measures to maximise impact
 - a) Dissemination and exploitation of results
 - b) Communication activities

3. Implementation

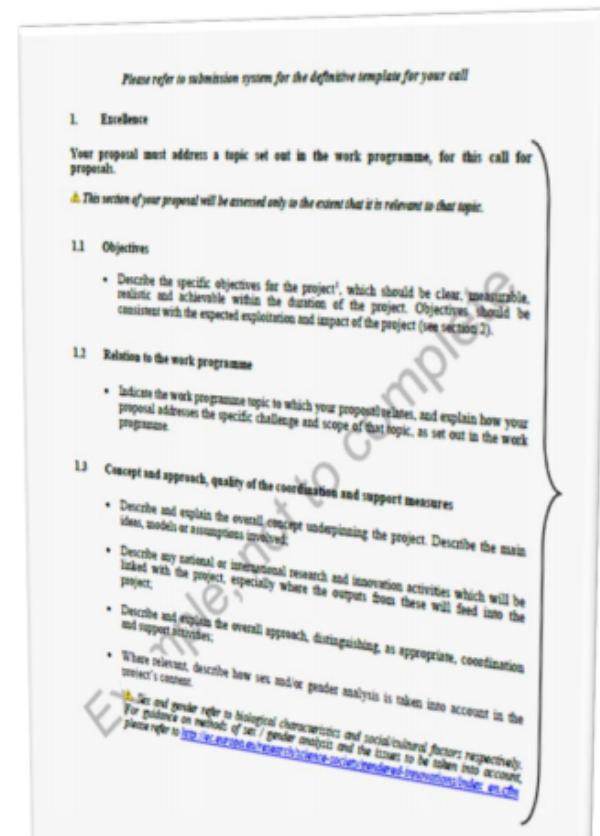
- 3.1 Work plan —Work packages, deliverables and milestones
- 3.2 Management structure and procedures
- 3.3 Consortium as a whole
- 3.4 Resources to be committed

4. Members of the consortium

- 4.1 Participants (applicants)
- 4.2 Third parties involved in the project (including use of third party resources)

5. Ethics and Security

- 5.1 Ethics
- 5.2 Security



Evaluation Criteria

STANDARD CRITERIA

EXCELLENCE

IMPACT

**QUALITY &
EFFICIENCY
OF THE ACTION**

ERC frontier Research actions → only "EXCELLENCE"

Innovation actions → higher weighting for "IMPACT"



Summary...

1

Find a relevant
call (annual
work
programme)

= find the challenge!

Tip: follow the WP
carefully = 50% chance
of beating the other
proposals

The screenshot displays the 'RESEARCH & INNOVATION Participant Portal' of the European Commission. The top navigation bar includes links for 'HOME', 'FUNDING OPPORTUNITIES', 'HOW TO PARTICIPATE', 'EXPERTS', and 'SUPPORT'. A search bar is located on the right. Below the navigation bar, there is a sidebar on the left titled 'EU Programmes 2014-2020' with a list of topics including H2020, 3rd Health Programme, Asylum, Migration and Integration Fund, Consumer Programme, COSME, European Statistics, Hercule III Programme, Internal Security Fund - Borders, Internal Security Fund - Police, Justice Programme, Pilot Projects & Preparatory Actions, Promotion of Agricultural Products, Research Fund for Coal & Steel, Rights, Equality and Citizenship Programme, and Union Civil Protection Mechanism.

The main content area is titled 'Calls for Proposals' and features a 'Horizon 2020' section. It includes a list of topics such as 'Excellent Science', 'European Research Council (ERC)', 'Future and Emerging Technologies (FET)', 'Marie-Sklodowska-Curie Actions', 'Research Infrastructures', 'Industrial Leadership', 'Leadership in enabling and industrial technologies (LEIT)', and 'Information and Communication Technologies'. Below this, there are filters for 'Status' (Calls with forthcoming topics, Calls with open topics, Calls with only closed topics) and 'Sort by' (Call title, Call identifier, Publication date). A 'Filter a call' button is also present.

At the bottom, there are several call cards for specific funding opportunities, including 'Excellent Science' (ERC Proof of Concept Grant), 'Science with and for Society' (EU Prize for Women Innovators 2018), 'Excellent Science' (ERC Synergy Grant), 'Excellent Science' (ERC Starting Grant), 'Societal Challenges' (H2020-JTI-IMI2-2017-12-two-stage), and 'Societal Challenges' (H2020-JTI-IMI2-2017-11-single-stage).

Summary...

2

Find partners

- Networking is fundamental to getting involved in EU funding
- There are many different ways to get started:
 - Find out who could be your potential partners
 - Contact your colleagues@ conferences
 - Get to know the relevant National Contact Points
 - Attend brokerage meetings in PT, Brussels
 - Participate in COST Actions
 - Contact GAI/RSO

(parenthesis...): Think about your role!



- ✓ Experience in participation H2020
- ✓ Responsibility and availability - being a coordinator is very demanding.
- ✓ Operational capacity - that is, conditions to implement the project and manage the financing
- ✓ Key competencies vs. the scope described in the topic



Summary...

3

Write &
Submit a
proposal

RESEARCH & INNOVATION
Participant Portal

European Commission > Research & Innovation > Participant Portal > Home

HOME FUNDING OPPORTUNITIES HOW TO PARTICIPATE EXPERTS SUPPORT Search PP LOGIN REGISTER

Horizon 2020 Funding

Starting from 1/1/2014

On this site you can find and secure **funding** for projects under the following EU programmes:

- **2014-2020** Horizon 2020 - research and innovation framework programme
- **2007-2013** 7th research framework programme (FP7) and Competitiveness & Innovation Programme (CIP)
- Research Fund for Coal & Steel, COSME, 3rd Health Programme, Consumer Programme, Justice Programme

Non-registered users	Registered users
<ul style="list-style-type: none">• search for funding• read the H2020 Online Manual & download the legal documents• check if an organisation is already registered• contact our support services or check our FAQs	<ul style="list-style-type: none">• submit your proposal• sign the grant• manage your project throughout its lifecycle• register as expert advising the Commission



Contact us!



Useful Links & more information

- **Horizon 2020 website**

<http://ec.europa.eu/programmes/horizon2020/en>

- **Participant Portal**

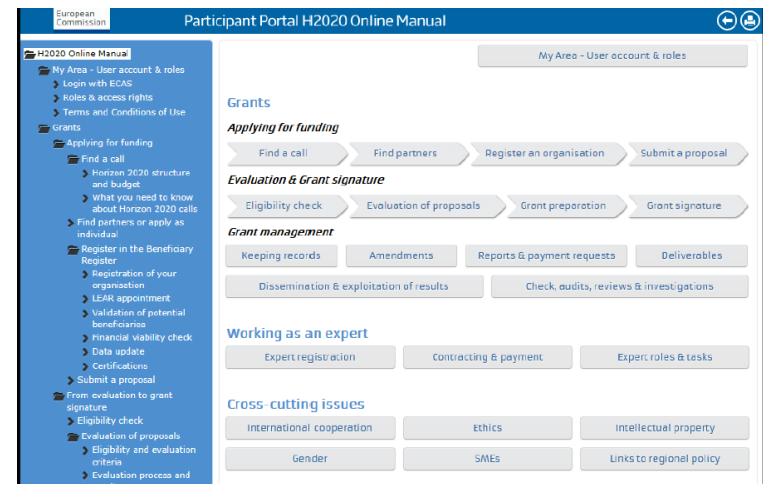
<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

- **Funded Projects database**

(http://cordis.europa.eu/projects/home_en.html)

- **Partners**

<https://cordis.europa.eu/partners/web/guest/home>





Thank You!

Vice-Rector for Research and Doctoral School

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