Horizon 2020

Scrivere una proposta di successo – guida al template

Università degli Studi di Foggia
28 Ottobre 2019

Le due parti di una proposta

PART A ***ADMINISTRATIVE INFORMATION***

- Informazioni generali (coordinatore)
- Informazioni sui partecipanti (1 per ogni partner)
- Budget (completato dal coordinatore)
- Ethics (questionario da approfondire nella parte B)

PART B ***TECHNICAL INFORMATION***

- 3 sezioni che seguono i criteri di valutazione

Part A

Online forms

Part B

Standard: RIA/IA	70 pages
Standard: CSA	50 pages
ERC	25 pages
FET OPEN	16 pages
FET PROACTIVE	30 pages
MSCA (ITN/RISE)	30 pages
MSCA (Individual Fellowships)	10 pages
SME Phase I	10 pages
SME Phase II	30 pages
Fast Track to Innovation	30 pages

Part B

Additional Information

PART A – Administrative information

A1: General Information

- Project Title
- Acronym
- Duration in months
- Keywords
- Abstract
- Declarations

A2: Administrative data of all participating institutions

- All beneficiaries need to have a valid PIC number
- Contact persons from each institution should be added

A3: Budget

A4: Ethics issues table

PART B – Technical information

Page Limits
Single stage

1. Excellence
2. Impact

Page Limits
1° stage della 2-Stage proposal (fino a 2.1)

3. Implementation
4. Members of the Consortium
5. Ethics and Security

Scrivere la parte B

Le sezioni della Parte B

1: Excellence

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

2. Impact

- 2.1 Expected impacts
- 2.2 Misure to maximase impact
  - Dissemination and exploitation of results
  - Communication activities

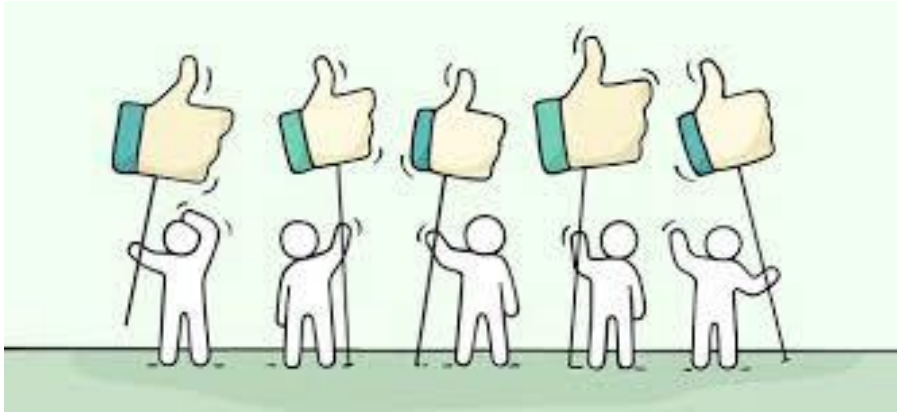
3. Implementation

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

4-5

- 4 Members of the consortium
- 4.1 Participants
- 4.2 Third parties
- 5 Ethics and Security
- 5.1 Ethics
- 5.2 Security

1. Excellence



1.1 Objectives
1.2 Relation to the Work Programme
1.3 Concept and methodology
1.4 Ambition

Valutazione dei sub-criteri

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** • **Extent that the 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)** • **Appropriate consideration of interdisciplinary approaches and, where relevant, use of stakeholder knowledge and gender dimension in research and innovation content** Comments:	**Score 1:** *Threshold 3/5*

Self Evaluation form: http://ec.europa.eu/research/participants/data/ref/h2020/call_ptef/ef/2018-2020/h2020-call-ef-ria-ia-csa-2018-20_en.pdf

1.1 Objectives

Describe the specific objectives for the project, 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).*

Le domande per identificare gli obiettivi

- What is the challenge / **what are the problems in the specific field** (indication etc.)?
- **What shall be reached; which problem shall be adressed and solved**?
- What is the consortiums‘ vision ?
- **What needs to be delivered in order to reach the expected impact**?
- Ask questions to cross-check the "central theme of the proposal“:
  - **Are the objectives of the project useful to reach the expected impact ?**
  - **Which approach have they chosen? What is their underlying concept (hypothesis, main assumptions) (needs to be adressed and cross-checked with 1.3)**

Gli obiettivi devono essere…

General Objectives

Long term: beyond the duration of the project

Improve, strenght, facilitate, realize …

Specific Objectives

To be realized during the project implementation

Testing, pilot plant, develop new knowledge, …

Suggerimenti

- There is usually **<u>one</u> main**, overarching goal ("*overall objective*“) and **several subordinate** , more specific goals ("*specific objectives*“). You should list both.
- To a certain extend, the **project objectives are usually already included in the topic text** (see: *specific challenge, scope, expected impact*.), sometimes explicitely listed, sometimes more implicit.
- The objectives are a result of the selected topic and the *concept and approach* the consortium has chosen for its project.

Suggerimenti – *La prima pagina*

- Imagine to be an evaluator…
  - → Start with a short description of the Idea of your project
  - → Create a picture in the evaluators‘ mind
  - → Identify the objectives of your project on the first page

Useful questions to bear in mind for the short presentation:

- What **problem** do you intend to solve?
- Why should it be solved at **European level**?
- Is the knowledge/solution **already available**?
- Why is now **the perfect time** to do it?
- Why **are you the best** person/consortium to do it?

The specific scientific and technical objectives and indicators of [redacted] are:

- **An inventory of novel fully characterized recombinant FAEs and GEs:**
  - ✓ 50 novel esterases from fungi
  - ✓ 500 novel esterases from bacteria
  - ✓ 25 rationally designed mutants
  - ✓ 20 best directed evolved mutants

- **Optimized biocatalysts based on FAEs and GEs** for production of the aforementioned biologically active compounds in the rigors of the industrial environment, exhibiting:
  - ✓ higher operational stability: **recyclability for at least ten fold cycles**
  - ✓ higher thermo-resistance and resistance to solvents: **at least 3-fold increased half-life at 50°C** and **at least 3-fold increased half-life in the detergentless microemulsion solvents** (hexane, n- and t-butanol).
  - ✓ higher yield: **up to the theoretical yield of 100%** for phenolic fatty esters **and 80%** for phenolic sugar esters
  - ✓ higher productivity: **up to 1 g/l/h** productivity for the synthesis of alkyl hydroxycinnamates **and 0.5 g/l/h** for the synthesis of sugar hydroxycinnamates.

- **The six main targeted biological active compounds -**prenyl ferulate, prenyl caffeate, 5-O-(trans-feruloyl)-arabinofuranose, glyceryl ferulate, benzyl D-glucuronate and prenyl-D-glucuronate**- fully characterized for their antioxidant activity and exhibiting an increase of 1.5-2 fold of the antioxidant activity and an improvement of hydrophilicity/hydrophobicity:** As calculated by applying the conductor-like screening with segment activity coefficient (COSMO-SAC) model to predict octanol–water partition coefficients (Redmill, 2012), it is expected that -O-(trans-feruloyl)-arabinofuranose is 55-fold more hydrophilic than ferulic acid, prenyl D glucuronate 63-fold more hydrophilic than prenyl alcohol, benzyl D-glucuronate 65-fold more hydrophilic than benzyl alcohol, prenyl ferulate 123-fold more hydrophobic than ferulic acid, 1-glyceryl ferulate 21 fold more hydrophilic than ferulic acid, prenyl caffeate 123-fold more hydrophobic than caffeic acid.

- **A library of 60 novel compounds belonging to the classes of phenolic fatty esters and phenolic sugar esters fully characterized for their antioxidant activity**

- **Schemes of reactions for biotechnological production of these compounds based on FAEs and GEs, characterized by**
  - ✓ lower temperature (50-60°C) than that of the chemical process (160 °C)
  - ✓ fewer steps (one step) than the chemical process

Example

The project [redacted] will pursue two main goals:

A. **New renewable energy technology:** develop a new renewable energy technology from the current TRL 3 ("experimental proof of concept") to TRL 6 ("technology demonstrated in relevant environment") [1] on a small-scale (50kW rated power), achieving the breakthrough result of 6 months of fully autonomous and continuous system operation. The technology involves an innovative drone, tethered to a ground station, to convert wind energy into electricity, see Section 1.3 for details. This new concept arises from the cross-fertilisation of airborne wind energy[2,3] with drone technologies[4], particularly multi-copters UAVs.

B. **New knowledge:** exploit the developed knowledge and collected data to validate experimentally for the first time the fundamentals of airborne wind energy, and to develop a roadmap to scale-up and commercialize the technology (single units of about 1MW rated power, arranged in farms for utility-scale generation). The roadmap will cover technical development goals, grid integration aspects, regulatory and certification aspects, safety aspects, social and environmental impact assessment, and policy recommendations.

These two goals are interconnected, since the second one features the first one as prerequisite. In turn, objectives A. and B. entail the following clear, measurable goals:

Objective A.:

A.1. **Develop and build a hybrid multi-copter/fixed-wing tethered drone** with the following features:

- aerodynamic efficiency (lift coefficient over drag coefficient) greater than 15 (untethered) and lift coefficient greater than 1 at the nominal angle of attack;
- wing loading (total mass over effective area, including all on-board components like batteries, propellers etc.) no greater than 8 kg/m^2;
- maximum continuous load (total force acting on the aircraft) greater than 6000 N;
- effective area (useful area for the generation of aerodynamic lift) of 2.5 m^2;
- on-board energy storage to carry out at least 2 complete take-off and landing cycles;
- tether attach/detach mechanism rated for tether loads greater than 8000 N;

A.2. **Develop and build a ground station** with the following features:

- winch system (drum, tether spooling system, damping elements) hosting 300 m of 3-mm-diameter tether made of UHMWPE[5], and mechanics (frame, winch, gearing, pulleys) capable to withstand at least 15000 N of tether load and to operate with tether azimuth spanning 360 deg and tether elevation from 0 deg to 90 deg;
- electric machine (motor/generator) able to reel-in/out the tether at speed greater than 600 rad/s with torque greater than 80 Nm (machine side);
- electrical backend (power electronics, protection devices, energy storage, grid connection) with possibility of both grid connection of the system, and stand-alone operation on batteries.

Example

Example

The [redacted] project is a research and an demonstrative initiative which **has the aim to develop a cost-efficient solution that uses biowaste as a feedstock for the production of 2nd generation biofuels, using macroalgae as a catalyser, while minimising the environmental impact of biofuel production. Main** and **Specific objectives** of the project are pointed out as follows:

a) The use of macroalgae as interface between biowaste and energy production allow a direct utilisation of biowaste obtaining, at the same time, the following positive externalities or specific objectives:

a1) Treatment of high nitrogen and phosphate content biowaste (control index 21 kg N/day, control index 3 kg P/day)

a2) Creation of a CO2 sink for the carbon credit market (control index 190 kg/h insufflated)

a3) Production of biomass pellets and fertilizer from organic residues of the biodigestor (control index 300 kg/day)

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a1) ***Treatment of high nitrogen and phosphate content biowaste***
Macroalgae need nitrogen and phosphate to grow: an adequate choice of biowaste rich on this chemical elements (e.g. poultry manure) can provide the right amount of nitrogen requested for algae growth and, at the same time, transform the negative eutrophication potential of such biowaste into a positive input. The idea is to take advantage of the eutrophication problem and CO_2 emissions that are negative externalities of human activities using them as feeding for macroalgae cultivation with the aim to optimize the life-cycle analysis (LCA) of the overall process from wheel to wheel. Considering the above reasons macroalgae could resolve the problems related to the excessive amount of nitrogen in wastewater treatment plants.

a2) ***Creation of a CO2 sink for the carbon credit market***
The amount of CO_2 requested for algae growth will be supplied through a piping system from a boiler (about 150m3/h) to open ponds. This means a reduction of CO_2 and NOx emissions in the air from the boiler;

a3) ***Production of biomass pellets and fertilizer from organic residues of the biodigestor.*** The use of a two phase anaerobic digestion allows to produce residues that could be dried out and pelletized or used as organic amending with 7-9% nitrogen content to slower its release.

b) Macroalgae can be directly used in biodigestors to produce energy without the need of mixing with other cereal crops

Macroalgae allow to avoid the use of food crops for energy production making

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Agenzia per la Promozione della Ricerca Europea

1.1.6 Scientific and Technological Objectives

The objectives of [redacted] are:

1. To develop and establish the conceptual framework of the research, defining terms, setting up networks and developing new understandings of CH-related copyright and IPR in the digital age (WP2);
2. To investigate the context of change, to study the forces that apply to CH in this context, to design the scenarios in which CH is preserved, made and performed and to foresee the methods of digital transmission of CH across audiences and generations (WP3);
3. To identify the directions to be taken to maximize the impact of CH on social and community development within the identified context of changes (WP4);
4. To devise instruments and to elaborate methodologies for knowledge transfer, developing innovative skills, creating new jobs and exploiting the potential of CH through digital technologies in order to foster the economic growth of Europe (WP5);
5. To tell stories related to Mediated and Unmediated CH, in which the results of the research are given practical application, illustrated and validated with end-users, through concrete case studies (WP6);
6. To produce evidence-based policy recommendations, foresight studies, toolkits for building awareness platforms, best practice guidelines for establishing cooperation initiatives (WP7).

The research objectives are complemented by **management** objectives which will guarantee the production of high quality and timely results (WP1) as well as **dissemination and communication** objectives which will achieve the widest and most effective propagation of the project results (WP8).

The table below summarizes how the project's objectives relate to the topics of the call. The Milestones indicated in section 1.3 will be used to measure and verify the achievements of the stated objectives.

Objectives of the call as listed in the Work Programme under the topic SSH.2013.5.2-2. Transmitting and benefiting from CH in Europe	**S&T Objectives of the [redacted] proposal**
Context of the research indicated in the EC Work Programme:	The research proposed by [redacted] is based on two major assumptions: 1. digital change strongly influences the whole value chain of CH, from curation and preservation, to access and participation, to cultural events and transmission to next generations. The research will

Example

1.1.3 Correspondence with the objectives addressed by the call

The following table summarizes the comparison between the call objectives and the project's ones.

Objectives addressed by the call	Project objectives

[A] Demonstrating increased reliability and achieving manufacturing economies of scale are main barriers for concentration-based photovoltaic (CPV) systems.	• New high efficiency spectrum tuned III-V quantum well solar cells
	• New highly reliable PV receiver with advanced thermal management system made of cost effective materials
	• New advanced high acceptance free form optical system
	  ○ New low cost free form plastic primary mirror with advanced high reflectivity coating
	  ○ New low cost free form quartz SOE with anti-reflective coating
	  ○ Front glass with cost-effective highly reliable anti-reflective multifunctional coating
	• New module architecture
	  ○ Simple and reliable sealing method
	  ○ Effective low cost humidity management system
	• New highly reliable tracking system
	  ○ Simplified structure concepts for easy manufacturing and assembly and installation
	  ○ Highly reliable moving parts and driving methods based on brushless motors
	• New module's inverter to improve system's performance stability over time and increase system's energy yield

[B] In order to enable large-volume production of the CPV systems and reduce their costs, it is necessary to improve the level of integration of the manufacturing of different system components.	• Design and development of all the system's components and development and demonstration of an integrated manufacturing line.
	• New high throughput PV receiver assembly line

Example

1.2 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.

Suggerimenti – *Come presentare la sezione 1.2*

- Many proposals just **make a table, list all relevant elements of the topic text and then show how they plan to deal with them in the project.** Often this section is about 1/3 to ½ page

- **Note**: the right question is: **How does the proposal address the issues raised?** And not: how exactly is the approach?

1.2 *Relation to the work programme*

[redacted] fully addresses the **topic: BB-05-2017 - Bio-based products: Mobilisation and mutual learning action plan**.

Challenges and goals of the call	How it is addressed by the project
Ensuring that research and innovation in bio-based products and processes is not only excellent, but also relevant and responsive to the needs of all actors is important, not least in ensuring the uptake of results. Surveys show that consumers and citizens in general have little awareness and knowledge of bio-based products (BBP).	[redacted] will increase the quality, the relevance, the social acceptability and the sustainability of research and innovation outcomes in various domains supporting proactive discussion and co-creation among relevant stakeholders (WP4 and WP5), and promoting the direct engagement of citizens and society at large in a co-creation research and innovation process (WP5) and consumer oriented communication activities (WP4 and WP6) to raise awareness and knowledge about BBP.
To improve market uptake of bio-based products, shape future research in BBP science, technology and innovation and meet the views and expectations of society, there is a need for a broad, inclusive assessment of the challenges and opportunities at hand.	WP5 will improve framework conditions for new bio-based market opportunities including action plans and processes, by involving in co-creation events, the stakeholders within the bio-based value chain.
Multi-actor approaches are needed to identify and address both the risks and different stakeholders' interests and aspirations, in order to maximise the benefits of new bio-based business models within society. Mobilisation of all actors along the value chain is crucial to mitigate the probability of "technology mismatches" (i.e. development of technologies without a corresponding reliable and cost-efficient feedstock supply, or which face insufficient market demand).	The [redacted] MML platform will involve representatives of all the stakeholders identified by the quadruple helix model (policy makers, researchers, the business community and the civil society). Through thematic workshops at European, National and Local/Regional levels (WP5), as well as online "labs" (WP4), involving stakeholder representatives and engaging them in different co-creation activities, the project will ensure that the different perspectives, knowledge and experiences, will be integrated in the BBP's design process minimizing technology .
The Mobilisation and Mutual	The partners have been selected as integrating experts in multi-

Example

1.2. Relation to the work programme

The proposal directly addresses the requirements of the work programme "Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy", call "Bio-based innovation for sustainable goods and services - supporting the development of a European bioeconomy" and topic [redacted]: Strategies for improving the bioeconomy knowledge of the general public". More specifically [redacted] masters:

Call Text - Objectives	Solutions in [redacted]
"The main tasks of this project are therefore to better understand existing barriers, raise awareness by informing citizens and establish an interactive, two way dialogue between local research centres, the European Commission and European citizens."	**Revealing the potential and end-users' perception of the bioeconomy in the targeted countries** **Organisation of events** Organisation of the Roadshows Organisation of national Unconferences Implementation of the Everyday life exhibitions Organisation of the Quadruple Helix dialogue events **Social media animation** Promotion of the Serious/Social game Implementation of the dedicated social media awareness campaign on BBPs
"Proposals under this action should bring bioeconomy research and innovation closer to the EU citizens to show the potential economic, environmental and social impact of the bioeconomy." *"A series of communication activities around Europe at local level (for example in the form of bioeconomy roadshows and online campaigns) would contribute to address this challenge."* *"Showcasing examples of bioeconomy products, demonstrating the relevance and possibilities of bioeconomy in everyday life*	**Organisation of events** Organisation of the Roadshows Organisation of national Unconferences Implementation of the Everyday life exhibitions Organisation of the Quadruple Helix dialogue events Organisation of the final conference and award ceremony **Social media animation** Promotion of the Serious/Social game Implementation of the dedicated social media awareness campaign on BBPs **Implementation of Contests** Running of the "60 seconds of BIOScience" contest Running of the "my BIOLife" contest

Example

1.2 Relation to the work programme

ResponsiveNano foresees the implementation of a set of activities, which will contribute to addressing the specific challenges and scope set out in the work programme of the NMPB 34 topic on *Governing innovation of nanotechnology through enhanced societal engagement* of the H2020-NMBP-2016-2017 Call, as summarised below:

NMPB 34 Specific Challenge:

In order to foster responsible research and innovation (RRI) in nanotechnologies, innovative processes are needed to improve the responsiveness of research & innovation processes to public values and concerns, and to ensure that research & innovation truly respond to societal challenges and take into account the social and environmental consequences from the outset.

ResponsiveNano´s approach:

The project will conceive and demonstrate a novel approach, the Co-innovation Lab package, that will contribute to improving the responsiveness of nanotech R&I processes to public values and concerns, responding to societal challenges and take into account the social and environmental consequences from the outset. This will be achieved through various steps: (1) selection of pilot organisations; 2) kick-off training and engagement activities; 3) characterization of CIL contexts; 4) elaboration of MSE methodologies and training of science centres for implementing MSE; 5) elaboration on the results of CIL processes and support to pilot organisations to build societal views into their nanotechnology innovation activities (further details are included in Section 3.1.3).

A set of approaches will aim to sow the seeds of RRI and to strengthen existing RRI practices within the pilot institutions, contributing to the fostering of an innovative mindset which is open towards societal values and needs. We believe this is a pre-condition to responsiveness and, therefore, dedicated actions will be implemented to this end. These actions comprise:

- Awareness raising (collaborative training event) will help turn pilot organisation representatives more familiar with RRI. They will also show how RRI and stakeholder engagement are beneficial for R&I institutions. Positive RRI experience, views and inspiring practices will be collected from nanotechnology stakeholders in WP4 (mainly from nanotech R&I community members) in the form of short videos, testimonies and other materials that will also be used in this event.

Example

1.3 Concept and methodology – *Parte (a)*

(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;*
- *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;*

Suggerimenti – *Concept*

- The concept of the project should be **based on a certain model/hypothesis/assumption** that should be clearly stated and elaborated
- The reader is expecting **facts, figures, numbers**, e.g.:
  - incidence rates of the conditions to be treated, severeness with regards to overall mortality, life expectancy, quality of life, etc.
  - Current (insufficient) treatment options and their drawbacks
  - Groundbreaking findings that have lead to the hypothesis that an alternative way might be suitable – best if partners of the applying consortium have contributed to these findings, (incl. references, preliminary results etc.)
- The concept is still **quite general and does not go too much into scientific detail** with regards to the "how“

Suggerimenti – *Descrizione dell' "Overall concept"*

- Context - EU policy and initiatives
- EU market – statistical information
- Stakeholders and actors, main beneficiaries, etc.
- Main ideas – graphics and schemes

ECOCHAMPS project
http://www.ecochamps.eu/project/approach/

Flex5Gware project
http://www.flex5gware.eu/overview

Example

Interdisciplinary or transdisciplinary approaches

- ***Interdisciplinary*** projects involve closer and more frequent collaborative exchanges among researchers drawn from different fields

- ***Transdisciplinary*** projects are those in which researchers from different fields not only work closely together on a common problem over an extended period but also create a shared conceptual model of the problem that integrates and transcends each of their separate disciplinary perspectives

Multi-actor approach

FOOD

The **multi-actor approach** aims at more demand-driven innovation through the genuine and sufficient involvement of various actors (end-users such as farmers/farmers' groups, fishers/fisher's groups, advisors, enterprises, etc.) **all along the project.**

- knowledge exchange activities and a clear role for the different actors in the work

- cross-fertilisation of ideas between actors, co-creation and generation of co-ownership for eventual results

Multi-Actor Approach

Multi-actor approach (MAA)= demand driven innovation

- **Clear list of requirements, forming fully part of the topic requirements** labelled by "*Proposals should fall under the concept of the 'multi-actor approach'* in the topic + footnote.
- **Requirements** for the 'multi-actor approach' are on **page 11-13** of the introduction of the Work Programme and are generic/similar for all MAA projects (footnote)
- **Systemic approach:** MAA is not a "cross-cutting issue" (as RRI, SSH, gender), it is not equal to multi/pluri-disciplinarity, nor to a strong dissemination requirement nor to a broad stakeholders' board.
- **Demonstrate selection criterion Excellence=>** Clarity and pertinence of the objectives & soundness of the concept: Clear requirements for MAA (6 bullets)

  a) How the **project proposal's objectives and planning are targeting needs/problems and opportunities of end-users** (=demand-driven)

b) **The composition of the consortium and the description of the project must reflect a balanced choice of key actors with complementary types of knowledge: building blocks for innovation are expected to come from science as well as from practice** and intermediaries

- "**all along the project**": **a clear role for the different actors in the work plan, from the participation in the planning** of work and experiments, their execution up until the dissemination of results and the possible demonstration phase.

- **End-users (OF THE PROJECT RESULTS) and practitioners are to be involved,** not as a study-object, but in view of **using their entrepreneurial skills and tacit knowledge** for developing solutions and creating **"co-ownership"** of results,

- This **speeds up the acceptance and dissemination of new ideas/solutions** thanks to cross-fertilisation of ideas and views and to including also **multipliers, facilitators and EIP Operational Groups** from countries and regions working on similar topics.

- Webpage including the **list of 600 OG projects** (Excel file with data from a Feb 2018 study): **https://ec.europa.eu/eip/agriculture/en/publications/eip-agri-operational-groups-assessment-2018**

- Meanwhile there are more than 1000 OGs: connect directly with the National Rural Networks or national EIP networks who know the OGs in their region/country: the contacts of the NRNs you can find here: **https://enrd.ec.europa.eu/networking/nrn-profiles_en**

c) **Project proposals should illustrate sufficient quantity and quality of knowledge exchange activities**

=>**'Actor'**: a partner taking part **in project activities**, contributing to project outcomes (co-decision, co-ownership)

=>**'Stakeholder'**: person expressing a **view/stake** at a certain moment(s) during the project: stakeholders' board, regional or national meetings

d) **Project's added value: demonstrate complementarity with existing research and best practice**

e) The project should result in **practical knowledge,** made easily understandable and accessible, which **must feed into the existing dissemination channels most consulted by end-users in countries**

f) **For EU wide communication, this practical knowledge should also be assembled into a substantial number of 'practice abstracts' in the common EIP format** to share within the EIP network

https://ec.europa.eu/eip/agriculture/en/news/brochure-%E2%80%9Cmulti-actor-approach%E2%80%9D

Responsible Research and Innovation - RRI

RRI has 6 dimensions

RRI Tools: project that developed useful tools (available in EU28 languages) for implementing RRI activities - https://www.rri-tools.eu/it

Posizionamento del progetto rispetto al TRL

Where your project idea is (before and after the work) according to the TRL

You can make a table of key elements of the project and the TRLs before and after the work:

Element	Before	After
Handheld Ultrasound technology	TRL3	TRL8
Hyperspectral Imaging	TRL3	TRL5
Acoustic Imaging	TRL2	TRL5

TRL – *Technology Readiness Level*

1. Basic principle observed
2. Technology concept formulated
3. Experimental proof of concept
4. Technology validated in lab
5. Technology validated in relevant environment
6. Technology demonstrated in relevant environment
7. System prototype demonstration in operational env
8. System complete and qualified
9. Actual system proven in operational environment

RIA

IA

SME instrument

(70%)

HORIZON 2020

- Excellent science
- Societal challenges
- Industrial leadership

della Ricerca Europea

enterprise europe network

Research and innovation activities linked with the project

- Show to the evaluators **how your project connects to the rest of the world**
- EC and evaluators want to make sure that with the public funding money, **you are not going to reinvent the wheel**, **but that you cross-fertilize with recent an ongoing projects in the field**
- Best, if **partners in the consortium have already close links to these other projects**, e.g., because they participate there as well, and that exchange of know-how will be realized
- If not, **create a plan how this could be done** (e.g. take other projects in your advisory group etc.).

Research and innovation activities linked with the project

Project	How outcomes fit [redacted] Objectives
GAP2 - aims to demonstrate the role and value of stakeholder driven science within the context of fisheries' governance. It builds on the relationships, processes and plans arising from GAP1 by enabling Mobilisation and Mutual Learning (MML) actions that promote stakeholder participation in the debate on and development of research knowledge and structures relevant to emerging policy on fisheries and the marine environment.	Use GAP2 reports to support the [redacted] KSP on the taxonomy of RRI projects. Use GAP2 good practices and toolbox for scientists and stakeholders knowledge co-production. Use GAP2 13 case studies in 11 EU states to reach to the scientists and stakeholders who could constitute a relevant group within the RRI Federation in relation to fisheries management. Use the GAP2 established dialogue with policy makers to engage policy makers into an RRI framework. Use the GAP2 network for dissemination of the Marina results.
EmsoDEV aim to catalyse the full operations of the EMSO distributed Research Infrastructure, through the development and deployment of the EMSO Generic Instrument Module (EGIM).	Use the EGIM that provides long-term measurements of ocean parameters to provide recommendations and policy options for RRI relating to ocean monitoring and observation. Use the EMSODEV established dialogue with scientists and stakeholders to be engaged to the RRI Federation in relation to ocean monitoring and observation.
JERICO-NEXT proposes a Pan European approach for a European coastal marine observatory network, integrating infrastructure and technologies such as moorings, drifters, ferrybox and gliders.	Use the JERICO-NEXT best practices for design, implementation, maintenance and distribution of data of coastal observing systems that could be used for RRI assessment and the good practice guidelines and the established dialogue with scientists and stakeholders to facilitate the RRI Federation towards permanent ocean observatories.
MarineTTaimed to unlock marine research knowledge using innovative approaches to identify and collect knowledge outputs from European Union (EU)-funded research and subsequently carry out an analysis for	Use the inventory of European funded Marine Science and Technology Projects (the Marine Knowledge Gate) to be used for the M[redacted]A KSP taxonomy of RRI and marine related projects.

Example

Research and innovation activities linked with the project

Project	How outcomes fit [redacted] Objectives	
BioCannDo	BIOCANNDO – A Bioeconomy discourse project, which is developing multi-stakeholder key messages for communicating functionality and sustainability aspects of bio-based products with the broader public. Many of the IBIOK consortium are already engaged with this project through the BIOWAYS project and BBI JU.	The communication strategy developed in BioCannDo may represent a starting point for defining mobilisation and mutual learning strategies improving the societal confidence related to bio-based products. The bioeconomy resources developed for citizen awareness could be used in the bio-based communities for knowledge sharing and citizen awareness.
bioenergy PROM	BIO-PROM - Promoting sustainable production and use of bioenergy in the Russian Federation and Ukraine	The analysis of Russia/Ukraine bioenergy projects along with the criteria for assessing them defined in BIO-PROM could be used to support the identification and categorization of past and ongoing BBP related projects and initiatives.
BIOWAYS	BIOWAYS- http://www.bioways.eu/ - The project mission is to promote the huge potential of bio-based research results and products to the public at large, through communication campaigns, public engagement activities, and educational tools and materials.	The analysis on bio-based products applications provided in BIOWAYS may be used as input for defining recommendations and policy options for bio-based products. BIOWAYS will provide an analysis of the market maturity and potential at European and national level that may represent a starting point for defining new bio-based market opportunities.
BIOSTEP	BioSTEP- BioSTEP (www.bio-step.eu) will apply a three-tier approach which aims at reaching all relevant actors in the bioeconomy domain, particularly policy makers, various stakeholder groups, and citizens. Tailored communication tools, including workshops, conferences and exhibitions, will be developed for each target group.	The BioSTEP project delivered a database with information on existing bioeconomy products and processes. This database can represent an important input for increasing the societal confidence related to bio-based products and industries within the BIOVoices project. The guidelines and the analysis of the social, economic and environmental impacts of the bioeconomy can provide input for creating a sustainable multi-actor bio-community.
Bio Base Europe	Open innovation and education center for the biobased economy. This joint initiative of the Flanders region and The Netherlands consists of a flexible and multipurpose pilot plant for biobased products and processes and a Training Center, network and exhibition center promoting a sustainable biobased economy.	The BioBaseEurope network consists of key worldwide players in the biobased economy that could be engaged within the multi-actor Bio-community.
BIOSURF	The BIOSURF consortium consists of 11 partners from 7 countries and strives to increase the production and use of biomethane, for grid injection and as transport fuel. ISABEL partner FNR is part of the consortium. (www.biosurf.eu)	The inventory and the analysis of biomethane related EU and national political acts, regulations and support schemes provided by the BIOSURF project could be used as input for providing recommendations and policy options for bio-based issues at EU, national and sub-national levels within the [redacted] project.
European Biofuels Technology Platform	ETIP Bioenergy-SABS - European Technology and Innovation Platform – Support of Advanced Bioenergy Stakeholders 2016-17	The standardisation activities performed by the ETIP Bioenergy project could represent a starting point for defining the framework conditions for new bio-based market opportunities levels within the [redacted] project.
greenGain.eu	greenGain - Supporting Sustainable Energy Production from Biomass from Landscape Conservation and Maintenance Work	The greenGain project provided an analysis of the most evident frameworks of legal, policy and financial regulations and lists a series of good practices of the involvement of the civil society and the participation of public administration in the aspect of good

Example

Concept and methodology – *Parte (b)*

(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 **sex and/or gender analysis** is taken into account in the project's content.*

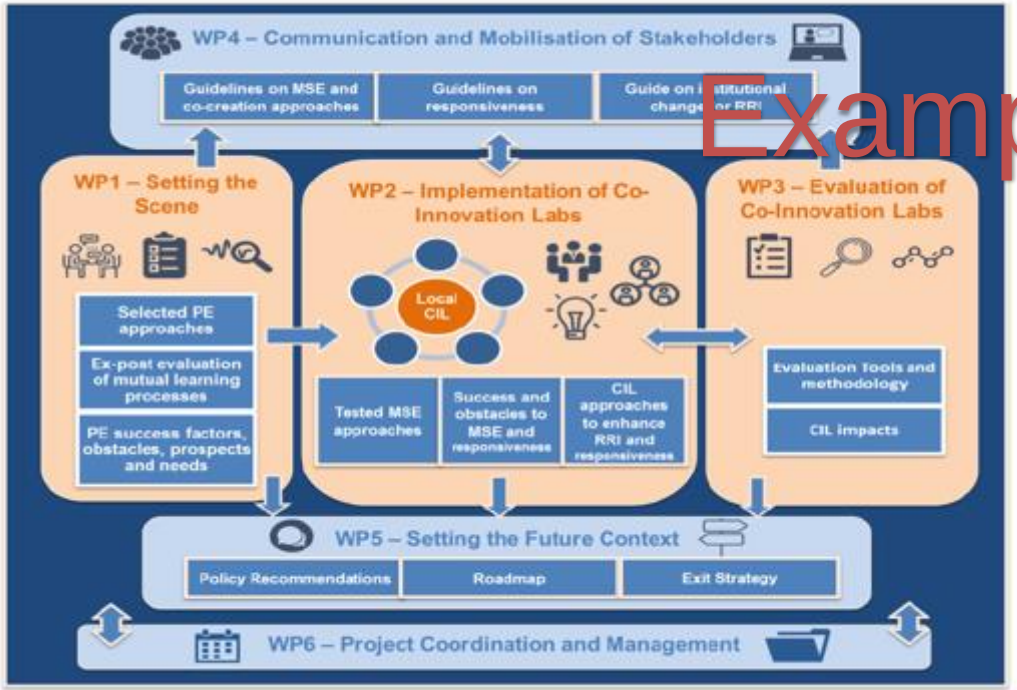
Suggerimenti – *Descrizione dell'overal methodology*

- How will be solved the problems and needs described
- Detailed but concise description of the solution
- Rational why the project is composed this way, in the differente stages identified (research, demonstration, etc.)
- Flow chart visualizing the phases of the project and their interconnections
- Verify coherence among objectives, activities, results

1.3.3 Overall project methodology

The core of [redacted] will be the implementation of MSE activities in the early stages of nanotechnology product development. Such actions will be demonstrated within the framework of the Co-Innovation Labs (WP2), located in 5 different countries, envisaging the operationalisation of adapted state of the art public engagement tools that stimulate a co-creation process with incorporated RRI principles.

The CIL package, in order to achieve long-term impacts in terms of uptake of RRI concepts, societal and stakeholder engagement, responsiveness to societal and environmental considerations, will also include a set of approaches in addition to MSE (collaborative training, artistic and journalistic residencies) enhancing awareness of RRI and reflection amongst the actors of the pilot organisations. A personalised mentorship carried out during the follow-up of the MSE activities will allow increasing the responsiveness of R&I processes to societal challenges, public values, needs and



Example

Figure 2. Overall project methodology

Gender dimension

- it is NOT about gender balance in the consortium, but about SCIENCE
- Are there scientific reasons for having a closer look at gender?
- How are you going to address this in your approach and methodology?

For guidance on methods of sex/gender analysis and the issues to be taken into account, please refer to:
http://ec.europa.eu/research/science-society/gendered-innovations/index_en.cfm

For other tools and best practices see also:
GenPORT: https://www.genderportal.eu/
Gendered Innovations: https://genderedinnovations.stanford.edu/

Why Gendered Innovations?

Doing research wrong costs lives and money. For example, between 1997 and 2000, 10 drugs were withdrawn from the U.S. market because of life-threatening health effects. Eight of these posed "greater health risks for women than for men" (U.S. GAO, 2001). Not only does developing a drug in the current market cost billions—but when drugs failed, they caused human suffering and death.

Gender bias also leads to missed market opportunities. In engineering, for example, considering short people (many women, but also many men) "out-of-position" drivers leads to greater injury in automobile accidents (see Pregnant Crash Test Dummies). In basic research, failing to use appropriate samples of male and female cells, tissues, and animals yields faulty results (see Stem Cells). In medicine, not recognizing osteoporosis as a male disease delays diagnosis and treatment in men (see Osteoporosis Research in Men). In city planning, not collecting data on caregiving work leads to inefficient transportation systems (see Housing and Neighborhood Design).

We can't afford to get the research wrong.

1.4 Ambition

- *Describe the **advance** your proposal would provide **beyond the state-of-the-art**, and the extent the proposed work is ambitious. Your answer could refer to the ground-breaking nature of the objectives, concepts involved, issues and problems to be addressed, and approaches and methods to be used.*
- ***Describe the innovation potentia**l 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.*

Suggerimenti – *Come impostare la sezione 1.4*

- **Do not write a scientific paper for a high-ranked peer reviewed journal** (but list them as references, if you have).
- Remember for whom you're writing – with very broad topics, the evaluation panel will be mixed with **different experts that may not know the particular condition**, treatment or technology in detail.
- Take the readers by the hand and **guide them through the proposal.**
- Help evaluators go through your proposal quickly; **follow the template and adress all points** at the place they are expected to be.
- Create a logical **link between objectives, workpackages and deliverables.**
- **Do not work to fill the 70 pages!** Work to get your ideas across!

Suggerimenti – *Beyond the state-of-the-art*

- Present situation vs future situation
- Innovation potential of the project results
- Comparative tables
- Abbreviations

1.2.2. Progress beyond the state of the art

[redacted] will break through the barriers of the low production levels and not industrial targeted properties of FAEs and GEs by performing a systematic study on the variety of FAEs and GEs from fungi and bacteria in which genome mining, heterologous expression and enzyme characterization are combined with site-direct mutagenesis and evolutionary mutagenesis. The application of feruloyl esterases and particularly glucuronoyl esterases has so far been hampered by relatively low production levels of these enzymes and in the case of GE also limited information about their biochemical properties. The biocatalysts obtained from [redacted] will be produced at high levels using improved fermentations to supply sufficient enzyme quantities to perform conversion tests. [redacted] will allow reaching a biocatalytic production of antioxidants for cosmetic and health care industries more sustainable than the chemical route. The advancements beyond the state of the art achieved with [redacted] biocatalysts, bioconversions, products and the overall biocatalytic process are summarized in the following table.

Present situation	[redacted] progress
	[redacted] BIOCATALYSTS
Around 50 feruloyl esterases (FAEs) have been purified and characterized from fungi and bacteria. Only few glucuronoyl esterases (GEs) have been so far characterized	Through exploration of bacterial and fungal genomes sequences, the repertoire of available DNA sequences for FAEs and GEs will be hugely expanded.
Several methods of classification of FAEs have been proposed and developed but the lack of information on them does not allow a univocal classification.	Bioinformatic and phylogenetic analysis on known and novel FAEs will allow a more univocal classification and also the biochemical characterization of the most promising recombinant enzymes will provide a large source of information. The project will provide a biochemically supported systematic analysis of FAEs unlike any performed before.
GEs are identified as a family (CE15) in the CAZy system with several subgroups but only characterization of a few members.	The combination of bioinformatics and biochemical characterization will result in detailed insight in the different properties of the subclasses of the GEs enzyme family and their potential for applications.
Production levels of FAE and GE genes are far from the industrial target and the knowledge about the expression is still limited.	An industrial viable production platform for FAEs and GEs will be developed testing fungal and yeast based expression systems, which are commonly used in industry.
The biochemical and the synthetic properties of FAEs and GEs are far from industrial target.	The properties and synthetic capabilities of FAEs and GEs according to the industrial target will be achieved through site-directed mutagenesis,

Example

Tabella comparativa

1.2.2 Advance brought about by the project

[redacted] going to develop an evolution of the HCPV system which will both improve the system's performances (raise the efficiency, the output power and the reliability) and demonstrate the feasibility of high efficiency low cost manufacturing of the system, thanks to the design and development of pilot equipments and toolings.

It has been established a team to collect all the best competences to improve the HCPV system and demonstrate the feasibility of the efficient manufacturing process.

In the following paragraphs is reported a detailed description of the project's progresses beyond the state of the art.

1.2.2.1 PV cell

The first part of the HCPV system is the PV cell. **The partner [redacted] will develop a new quantic effect III-V PV cell that will overtake the performance of the state of the art III-V PV cell, raising the conversion efficiency to more than 45%**

Two approaches to the cost effective manufacture exist for solar cell makers:

- Improve the efficiency of the existing solar cell through better design, material quality, manufacturing process design, new materials and so on;
- Radical change of the manufacturing process to economise on material usage; for example: larger area deposition, less material wastage, substrate re-use, raw materials recycling, etc.

The quantum-well approach to solar cell design gives the designer significant flexibility in the eventual design of the solar cell, eventually it is envisaged that up to three junctions can be independently tuned to give the best possible bandgap combination. The fabrication process remains compatible with the standard MOVPE production process chosen today for almost all III-V solar cells, which has the highest throughput of all thick-layer III-V deposition systems. Additionally, handling thin films is not needed initially, though to meet cost targets it may be necessary to incorporate some degree of wafer thinning or lift-off and

Example

Per tecnologia

Alcune domande da farsi prima di andare avanti

- Does chapter 1 create curiosity and stimulates to carry-on reading?
- Does the **layout** encourage reading (with pleasure)?
- Check **consistency** across chapter 1, and across entire proposal
- Are **abbreviations** explained (when first occuring)?
- Are **figures** self-explanatory (applicants tend to have too many figures in chapter 1, and also the wrong figures!)
- Take an Helicopter view on the proposed project: **do you get all required information? What is missing? What is overdone?**

2. Impact

2.1 Expected impacts

2.2 Measures to maximise impact

2.2.a Dissemination and communication of results

2.2b Communication activities

Valutazione dei sub-criteri

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;**
- 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
- Quality of the proposed 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

Self Evaluation form: http://ec.europa.eu/research/participants/data/ref/h2020/call_ptef/ef/2018-2020/h2020-call-ef-ria-ia-csa-2018-20_en.pdf

2.1 Expected impacts

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.)*

Expected impacts - *Come definirli*

- Think about the expected **impact in the topic text/work programme.**
- How will the project **support EU-policies?.** (in particular for research, innovation, health, biotech, environment, society, etc.):
  - *Did you consider those political aspects that are announced in the work programme?*
  - *How will the project help to contribute to the goals for the Europe 2020 strategy?*
  - *Why will Europe need the project? What is the added value?*
- Who are the **users of your results?**
- How will your **project/results strenghten the competitiveness?**
- What is the **social/societal benefit?**

Please consider enough time and discussion for all the different aspects around this task

Expected impact – *Citati nel topic*

- Key performance indicators / Quantified outcomes
- Contributions to technical standards
- Coherence between impact and activities/work plan (Comparative tables)

Example

2. Impact

2.1. Expected impacts

Expectd Impact: Citizens will become aware of the importance and possibilities/impact that research and innovation in the bioeconomy can offer for them			
Stakeholders	**Expected impact on stakeholders**	**Outcomes from**	**Measurement**
CIVIL SOCIETY • General public • School students • University students • Teachers and Educational institutions • Citizens associations • NGOs and CSOs active in the bioeconomy field	• Awareness of the economic, social, environmental benefits R&I in the bioeconomy may offer to them • Interest of the students is stimulated both in the environmental and the social/economic aspects of bioeconomy • Improved awareness on HOW information is communicated to students • Aware of their importance for bioeconomy development while acting as a bridge between R&I and civil society • More involved in the communication of scientific research work to the general public (proactively or as information repositories	- Citizens are aware of the benefits R&I in the bioeconomy can offer to them (economic, social, environmental benefits) - Citizens are aware of the multiple fields of application of BBPs and their diversification possibilities (e.g. through Exhibitions of bio-based products in everyday life) - More BBP-confident attitude as private and/or public end-users - More interested attitude towards Research/scientific careers - More environmentally responsible consumer's behaviours - Increase the awareness and interest of students of primary and secondary schools through a non-scientific approach showing "hands-on" the multiple fields of applications of bioeconomy - When dealing with the bioeconomy, in primary and secondary schools a non-scientific approach is adopted to make the pupils understand the multiple fields of applications and aftermath of the bioeconomy - NGOs and CSOs and Science Parks/museums actively contribute in project activities - NGOs and CSOs and Science Parks/museums active in the bioeconomy field actively contribute in disseminating bioeconomy-related research work results (participatory approach)	- Cross-cutting measurements aimed at measuring progress in stakeholders engagement and awareness of bioeconomy and BBPs - Number/% of invited NGOs/CSOs, Science Parks/museums actively contributing in project activities - Number/% of invited NGOs/CSOs actively contribute in disseminating bioeconomy related scientific research work - Interviews to participants to the events - Letters of Intent

Cross-cutting outcome	**Measurement**
- Definition of the methodology for future national case studies on national bioeconomy maturity - Definition of social, economic and political frameworks fostering the bioeconomy in target countries - Increase the dialogue and participation of the civil society in the design of policies and products in bioeconomy	- Guidelines for future replication of national "Bio-readiness" report (D2.2) - "Bio-readiness" report (D2.1)

Example

Objectives	Expected Impacts to be addressed i follows	Deliverables	Key Performance Indicators and innovation capacity
Expected Impact 1 (EI-1): *Expand the range of business models available to entrepreneurs and local authorities by developing circular and sustainable business models with large potential for replication in areas with unexploited resources, at a relatively low cost, risk and with low levels of technical complexity.*			
[1]	***The range of business models available to entrepreneurs and local authorities will be expanded*** via fallow land replacement by n that will provide renewable feedstocks for sustainable production of bio-based products for ***1) industrial applications with wide market segments*** and ***2) sustainable recirculation in agricultural and farming activities***. pproach does not jeopardise food security and in the same time provide clear opportunities for increasing farmers' income through the production of renewable industrial feedstocks and creating business development options to entrepreneurs and local authorities, especially in areas with unexploited resources (e.g. marginal and abandoned lands).	D4.1 – D4.7	• ***Increase farmers' income via fallow land replacement by camelina cultivation***: at least €500/ha with a target of more than €1000/ha, which is feasible given tha cultivation costs are in the range of €250 - 300/ha and that the farmer is not currently counting on perceiving any income from the fallow land period (*see example* and Table 2.1.1*). • ***Improving yield per ha thanks to nutrient recycling an cultivar selection:*** at least 10-15% • ***Evaluate business model development*** at m a market producing 4 Mt oil, 6 Mt meal and 20 Mt straw

Example*: The marginal land in EU MED countries is 8.5 million ha and the summer cover cropping in France (after winter barley) is 1.4 million ha. The yield per hectare of ds depending on soil fertility is 0.5 – 2.5 t/ha corresponding to camelina seed production range of 5 – 24.7 million t. Considering that the oil and meal content in ds is on average 40% and 60%, respectively, and the seed straw ratio is 1:2, Table 2.1.1 presents the additional farmer's income without ntribution.

Table 2.1.1. Added-value created via fallow land replacement b EU MED countries and France

Feedstock	Capacity range (Mt)	Matur arket (Mt)	Farmer's income	Farmer's income range per ha
a oil	2 – 9.9	4 Mt	700 €/t (€2.8 billion)	350 – 1750 €/ha
meal	3 – 14.85	6 Mt	250 €/t (€1.5 billion)	125 – 625 €/ha
straw	10 – 49.5	20 Mt	60 €/t (€1.2 billion)	30 – 150 €/ha
Current income without considering the added-value of contribution			1010 €/t (€5.5 billion)	505 – 2525 €/ha

Example

Expected Impact	Objectives	[redacted] Approach	Outcomes	Deliverables	Performance indicators
To create networks of specific target groups in order to raise citizens' awareness and understanding of bio-based products	**OBJ2**: Design and promote a MML (Mobilisation and Mutual Learning) platform, engaging different stakeholders at European, National and Local level, including a plurality of perspectives, experiences interests, aspirations and knowledge. **OBJ4**: Through the [redacted] multi-stakeholders platform, design and implement an action plan fostering the awareness of the large public about benefits and potential social, economic and environmental impact of Bioeconomy and widening the diffusion of BBP (Bio-based products)	T3.1 and T3.2 will create a Database of stakeholders (quadruple helix model) to be leveraged depending on the project's activities. T3.3 will initiate the [redacted] Community and will create the [redacted] methodological approach for MML to foster bio-based value chains. The activities in WP5 will create multi stakeholders networks at European, National and Local/Regional toward the creation of the [redacted] Action Plan (Task 5.4) to raise citizen's awareness/understanding and foster collaboration among stakeholders.	- Stakeholders identification and clustering to target them with specific actions - Innovative Methodology to foster dialogue and co-creation among [redacted] - [redacted] Action Pl[redacted]itizen's awareness/understanding - Strategies for large public engagement/awareness creation (live and online co-creation events, social media strategy, [redacted]ces app) at European, National and Local/Regional level	D3.1 Stakeholders´ classification (M3) D3.2 Stakeholders´ database (M36) D3.4 [redacted]ces methodological approach for Mobilisation and Mutual Learning (M14) D4.1 [redacted] multi-stakeholder on line social platform (M6, M33) D4.2 Population of the BIOVoices multi-stakeholder on line platform with contents Report (M11, M36) D4.3 Animation of the multi-stakeholders Platform Report (M24, M36) D5.2 Final report on European, National and Regional MML events (M36) D5.3 [redacted]ction Plan and stakeholde[redacted]icy briefs (M35) D4.4 The [redacted] (M18) D4.5 Social Media innovative engagement and animation Report (M24, M36) D6.1 Impact, Communication and Dissemination Plan (M4) D6.4 Report on the dissemination and exploitation activities and results (M12, M24, M36) D6.2 [redacted]ebsite (M3) D6.3 Promotional Kit (M2, M36)	Number of Stakeholder (T3.2) Number of live Events and co-creation workshops organized in WP3 and Wp5 and participants at European, National and Local/Regional. Total of at least 3000 stakeholders. Number of online events and participants Number of citizens reached by the social media activities and [redacted]pp in WP4 Number of citizens involved in communication activities in WP6

Expected impacts – Ulteriori

Consider:

- Economic Impact
- Social Impact
- Environmental Impact
- Scientific Impact
- Education Impact
- Geographical Impact

Less important of the impacts related to the topic

Suggerimenti – *Economic Impact*

- What would be the changes brought by introducing your innovation on the market?
- What is the expected growth potential of your solution in terms of turnover, employment, market size, IP management, sales, return on investment and profit, etc.?
- What are the estimated funding requirements to reach the market?

Suggerimenti – *Environmental Impact*

Climate action includes:

- mitigating climate change (helping to cut greenhouse gas emissions)
- adapting to the impact of climate change by building resilience to phenomena such as flooding, droughts and other extreme weather events
- contributing to understanding the causes of climate change.

Sustainable Development:

- development that meets the needs of the present without compromising the ability of future generations to meet their own needs within the planet's physical boundaries.
  Sustainable development has economic, social and environmental dimensions.

3. Impact

3.1 Expected impacts listed in the work program

POLITICAL IMPACT

[redacted] will contribute to the objectives of industrial and innovation policy as following described.

[redacted] will develop **Key Enabling Technologies** (KET) in the field of industrial biotechnology, namely reactions catalyzed by novel biocatalysts based on feruloyl esterases (FAEs) and glucuronoyl esterases (GEs) and processes for their production, which are energy efficient and eco-friendly. The [redacted] KETs will contribute to improve the EU industrial capacities and enhancing the competitiveness and sustainability of the EU's economy. The European **bioeconomy** will thus be advanced in agreement with the EC COM(2012) 60 ("Innovating for Sustainable Growth: A Bioeconomy for Europe").

Development of the [redacted] industrial biocatalysts, contributing to boost innovation and sustainability and to increase the international competitiveness of the European enterprises overseas in the biotechnological, chemical, and cosmetic sectors, will be in accord with "Horizon 2015: Perspectives for the European Chemical Industry", a CEFIC conclusion and will support the Lead Market Initiative on Bio-based products.

[redacted] **will create a network of specialists** trained to develop green solutions. It is expected that an integrated approach involving scientists with different specialization, who will define and perform jointly an integrated research plan, with shared aims, will contribute to explore and assess innovative strategies for healthcare industry. The project is expected to stimulate a better integration of research and development activities with the European industrial field.

[redacted] **will translate knowledge into goods**. The close collaboration between research and industrial partners will allow bridging the 'Valley of Death', i.e. the gap between basic knowledge generation and its subsequent commercialization into goods and services.

The Collaboration between industry and academia is very strong in [redacted] The major benefits of the collaboration **to Industrial partners** are:

- **Increased in-house knowledge and innovation:** Industry partners will benefit from EU funded research on topics that are very relevant in the respective applied fields, which will increase in-house knowledge, technology development and expertise.
- **Networking and innovation:** The opportunity for continuous networking with major European centers for enzyme technology research. This networking will lead to the generation of new ideas and methodologies

Example

TECHNICAL IMPACT

The results of [redacted] will contribute to enhance **the competitiveness, sustainability and potential innovation of European biotech and chemical-using industries (by exploiting industrial biotechnology for developing biocatalysts)** through:

- ***Developing novel sustainable biocatalysts.*** Novel FAE- and GE- biocatalysts will be developed by both rational mutagenesis and directed evolution, and mining for new genes from available genomes. This will include the recombinant expression and characterization of 50 novel esterases from fungi and 500 novel esterases from bacteria; the recombinant expression and characterization of around 20 site-directed mutated enzymes and 20 optimized and characterized directed evolved mutants.
- ***Expanding the number of chemical transformations carried out by enzymes substituting the chemical synthesis of the antioxidants (prenyl ferulate, prenyl caffeate, 5-O-(trans-feruloyl)-arabinofuranose, glyceryl ferulate, benzyl D-glucuronate and prenyl-D-glucuronate) with sustainable enzymatic biotransformations by FAE- and GE- biocatalysts.*** The developed biotransformations require only one step, lower use of toxic reactants and solvents and lower temperature (50-60°C) than chemical synthesis (employing strong acid, alkaline or metal-based chemical catalysts and temperatures above 160°C). The substrate specificity of adopted enzymes will avoid production of byproducts, which are commonly obtained during chemical synthesis, thus reducing downstream costs. The by-product and catalyst residues in a chemical esterification need extensive removal in order to produce clean and high quality substances with the potential use in the cosmetics or pharmaceutical industry. This is not required when using enzymatic synthesis.
- ***Optimizing of enzymatic performances for target reactions at industrial scale.*** Rational and random mutagenesis will allow developing enzymes with improved properties for industrial applications. Improvements of thermo-resistance –with at least 3-fold increased half-life at 50°C, and solvent resistance –with at least 3-fold increased half-life in the detergentless microemulsion solvents (hexane, n- and t-butanol), will increase the operational stability improving cost-efficiency of the biocatalysts. Biocatalysts with improved targeted substrate specificity will also be selected, thus increasing yield of the desired products and reducing downstream processing costs.
- ***Developing methods to improve biocatalyst production.*** Using rational and random molecular methods the production of biocatalysts will be improved. Biocatalyst production will be improved through optimizing production systems with respect to gene expression and secretion. In this project focus will be on those methods that result into a messenger RNA related production improvement. Such methods being successful may subsequently be used also in other projects.
- ***Optimizing reaction conditions of targeted biotransformations.*** Achievement of optimized reaction conditions with the developed biocatalysts will allow increasing the yield of the targeted biotransformations (up to the theoretical yield of 100% for phenolic fatty esters and 80% for phenolic

Example

della Ricerca Europea

Example

This project is targeted to the needs of small and medium sized enterprises regarding the development of technologies for biocatalyst production which is an area of great interest especially in Europe. This will be achieved through the development of **cost-effective processes for production, recovery of biocatalysts and for their application in the synthesis of antioxidants.** These achievements will enable industries to **deliver novel biocatalysts and products bridging the gap between laboratory and industrial scale and meeting the EU Strategy for KET and Lead Market Initiative on Bio-based products.**

Regarding the market sectors within the scope of this project – enzymes and antioxidants for cosmetic industry - this project will provide new products for a market in expansion with the advantages of positive environmental impact in relation to the currently existent products and lower cost.

- ***Industrial Enzymes.*** The global market for industrial enzymes is estimated at $3.3 billion in 2010. This market is expected to reach $4.4 billion by 2015, a compound annual growth rate (CAGR) of 6% over the 5-year forecast period. Europe represents the largest market for industrial enzymes, even if the developing Countries of Africa and Middle East regions are expected to be the most promising markets for industrial enzymes in the next few years. About 90% of the industrial enzymes in the world market are produced by European companies, with Novozymes, DSM and DuPont being the major players. The companies mainly compete on the basis of product quality, performance, use of intellectual property rights, and the ability to innovate (http://www.konceptanalytics.com/). There is a huge opportunity for enzyme producing SMEs like Dyadic and NZYT by entering in such rapidly growing market segments.

There is still not a well established FAEs and GEs global market, but as recently reviewed (Fazary and Ju, 2008), research on these enzymes is strongly rising, with a dramatic increase in publications concerning these catalysts, between 2001 (4 scientific manuscript) and 2012 (more than one hundred).

ENVIRONMENTAL IMPACT

- ***Reduction of the environmental impact of production processes by substituting the chemical processes with biotechnological ones.*** The biotechnological processes delivered by [redacted] for the production of FAEs and GEs and their use in bioconversions producing compounds with applications in the cosmetic field, will be developed focusing on product life cycles with neutral greenhouse gas emissions. The developed bioconversions are aimed to be carried out in predominantly aqueous media using enzymes, therefore being characterized by a limited use of toxic reagents or solvents and just requiring ambient temperature. [redacted] will therefore result in a reduction of the environmental impact of these production processes.

SOCIAL IMPACT

- ***Production of natural ingredients not requiring tests on animals.*** OPTIBIOCAT will adopt substrates of natural origin for production of antioxidants which will not need tests on animals not only in the developmental stage but also for their final application. This will support European Directive 2010/63/EU establishing the replacement and reduction of the use of animals for scientific purposes and the Protocol on the Protection and Welfare of Animals.
- ***Improvement of life quality of citizens.*** [redacted] ensures that the results achieved can be rapidly transformed into benefits for Europe citizens, developing technologies and knowledge while respecting fundamental human rights and stimulating the cooperation of providers and users.

The main contributions of [redacted] are its eco-friendly processes which will positively affect the life quality of the Europe citizens. The project will also particularly boost innovation of European health-related industries, with development and validation of new sustainable and efficient healthcare products.

- ***More jobs***. This project will contribute to increasing competitiveness and innovation, creating quality jobs and looking for new tools for social, economic, environmental and technological developments. Increased industrial competitiveness and high quality products would protect European jobs and therefore promote social and economic cohesion. A stronger research capacity can also result in the creation of more jobs in the regions. This would improve the conditions for conducting research and ultimately improve Europe's potential in creating jobs and improving social wealth.

Example

Barriers/obstacles and conditions affecting impacts

2.1.2 Barriers, obstacles and conditions affecting impacts

[redacted]SA and as such it is fully set on achieving measurable and immediate results within the duration of its implementation and considerable legacy to deepen its impact after the end of its operations.

Several studies have identified economic conditions, know-how, institutional capacity, public perceptions and supply chain coordination as the main non-technical barriers hindering the expansion of bioeconomy and the broader market uptake of bio-based products in the EU.

- **Economic conditions** (including the regulatory environment) refer to distorted competition in favour of 'traditional' products, due to historical contingencies and vested interests, which do not allow BBPs to gain competitive advantage.
- With regard to the lack of **know-how**, the production of BBPs differs both in terms of the raw material used as well as the processes followed and therefore a lack of understanding and or experience by relevant actors may present a significant barrier to successful market uptake.
- **Public perceptions** on the use of BBPs are often negative due to lack of understanding, association to unpleasant processes, or distorted impressions of what they entail. This causes low public acceptance and hinders demand and development.
- **Supply chain coordination** is crucial and it is vital that supply and demand availability, as well as the intermediary functions are in place and well-tuned in order for the supply chain to function reliably and for relevant stakeholders to make the necessary investments.

Example

2.2 Measures to maximise impact

a. Dissemination and exploitation 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 admissibility condition**, 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. […] **For IA** […] please describe a credible path to deliver these innovations to the market.*
- *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 […] 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').** Once the action has started (not at application stage) those beneficaries which do not opt-out, will need to create a more detailed Data Management Plan for making their data findable, accessible, interoperable and reusable (FAIR).*
- *Outline the strategy **for knowledge management and protection**. Include measures to provide **open access** (free on-line access, such as the 'green' or 'gold' model) to peerreviewed scientific publications which might result from the project*

Dissemination – Communication – Exploitation

Key points to keep in mind:

- Context
- Goals
- Target
- Strategy
- Channels

Activities	Targeted audience	Objectives
Communication	Multiple audience	Inform and reach out of society, show the benefits of research
Dissemination	Audience that may make use of results	Enable use and uptake of results
Exploitation	Groups and entities that are making concrete use of results	Making use of results, for scientific, societal or economic purpose

Definizione - *Dissemination*

Dissemination is linked only to the results of the project which are often disseminated within the action's own community (e.g. presentation at scientific conferences, a peer reviewed publication). Promoting the action and its results on the other hand goes beyond that, as it means taking strategic and targeted measures for communicating about (i) the action and (ii) its results to a multitude of audiences, including the media and the public and possibly engaging in a two-way exchange.

Examples of dissemination actions:

- Publication of an article in a peer reviewed journal;
- Papers presented at a scientific conference;
- Presentation of project results at standard committees;
- Publishing a summary report of your project findings on a public website.

Definizione - *Exploitation*

The **flow of knowledge and technology between the research and business** can be achieved through the exploitation of research results. So, the use of results in further research activities other than those covered by the action concerned, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardization activities…

This latter can among others:

- Generate additional revenues;
- Promote open innovation;
- Increase access to and sharing of research data and publications;
- Engender possibilities for collaboration in research and teaching;
- Raise the profile and get publicity;
- Broaden the job market for students.

Exploitations Channels

Commercialisation channels

- Assignment
- Licence
- Joint venture
- Spin-off
- Consultancy

Knowledge transfer channels

- Publishing
- Conferencing and networking
- Consortium agreements
- Personnel mobility
- Standards

How to exploit the project results

- Promote and further excellence in research
- Create spin-offs or start-ups (business plan)
- Develop products or processes, services
- Added value of the technology (business case)
- Contribute to standardisation activities, create networks

Strategy for Dissemination and exploitation of results

This strategy should give an orientation as to the organisation of the planned project activities and therefore should address as a minimum the following questions:

- What kind of **needs** does the project respond to?
- What kind of **problem** the proposed solution will solve and why this solution will be better than existing ones and in which areas?
- What new knowledge (results) the project will generate (assessment of the state of the art)?
- **Who** will use these results?
- **What benefits** will be delivered and how much benefit?
- **How** will end users be informed about the generated results?

Business cases and exploitation strategies for industrialisation (LEIT-NMBP)

Focus

The exploitation strategy should be realistic and identify obstacles, requirements and necessary actions involved in reaching higher TRLs, such as

1. Improved material/product robustness and reliability;
2. Matching European value chains;
3. Securing an industrial integrator to adapt the new technologies to industrial scale;
4. Availability of large-scale testing, pilot and manufacturing facilities;
5. Standardisation;
6. IPR and technology transfer;
7. Product approval by regulatory and/or relevant international bodies;
8. User acceptance and the needs of industrial users, including SMEs;
9. Sustainability of financing (after the EU funding).

Source: http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit_en.pdf

Suggerimenti – *Strutturare il Dissemination and Exploitation Plan*

- It is very important to show in your draft *PEDR* (*Plan for Exploitation and Dissemination of Results*) that you have thought about concrete measures to enhance the innovation capacity and integration of new knowledge and that in general your project has an innovation potential.
- Including a **business plan** as part of the project proposal in some projects allows participants to better outline increased economic impact of the project activities
- A draft **PEDR is a compulsory part** of the project proposal and its submission is considered part of the admissibility criteria, unless otherwise stated in the call for proposals.
- Keep the PEDR flexible enough and **in line with the objectives of the project** during its implementation.
- Define clear objectives and well-planned protection, exploitation and dissemination strategies
- Include sufficient quantitative and qualitative indicators as to the planned activities for protection, exploitation and dissemination of results.
- Show the link between the proposed dissemination and exploitation measures and the expected impact of the project.

Once started, dissemination planning will be a continuous process in the **XxXXxX** project. This approach will allow to tackle the dissemination challenges in an efficient way and with prior agreement on the key actions among the project beneficiaries. In particular, the key elements of our dissemination strategy will be:

Goals: to determine and document the goals of the dissemination effort for **XxXXxX** project.

Improve the knowledge and metrics of specific waste streams and waste management methods and technologies in Europe

Improve in the knowledge of costs and performances along value chains, informing a pricing policy for waste management in line with the waste hierarchy

Support the EU policies on the waste field.

Objectives: to associate each goal with one or more objectives that clarifies what we try to accomplish through the dissemination activities.

Users: to describe the scope and characteristics of the "potential users" that dissemination activities are designed to reach for each objectives;

Several target group: researchers, policy makings, students, industries, citizens

Content: to identify, at least, the basic elements of the projected content that will be disseminate to each of the potential user groups identified;

Every result provide by the XxXXxX project

Sources: to identify the primary source or sources that each potential user group is already tied into or most respects as an information source;

Channels: to describe the media through which the content of **XxXXxX** project message can best be best delivered to potential users and describe the capabilities and resources that will be required of potential users to access the content for each medium to be used.

Access: to describe how **XxXXxX** project will promote access to relevant information and how users will archive information that may be requested at a later date .

Barriers: to identify potential barriers that may interfere with the targeted users' access or utilization and develop actions to reduce these barriers.

Example

The success of the **XxXXxX** project dissemination efforts will be evaluated through an iterative process. It is necessary to consider the effect that the dissemination strategies have on getting our message to end users. Dissemination is not a one-time activity; rather, it is a long-term relationship with users that will provide ongoing feedback to help us to improve our message.

Dissemination actions	Main Target groups					
	CPV Stakeholder	Scientific Comm.	Policy Makers	Public Authorities	Media	Public at Large
Project website – a dedicated web site will be available for public access and therefore will be a major dissemination vehicle for project, technology and product announcements. It will contain information on the project partners, an outline of current research activities, a calendar of events, a forum/blog section and published newsletters as well	✓	✓	✓	✓	✓	✓
Project electronic newsletter – quarterly issues to subscribed users, issuing project progresses as well as useful news	✓	✓				
Project forum/blog – available through the project website, involving project partners	✓	✓				✓
Dissemination materials - flyers, posters, USB keys or DVDs	✓		✓	✓	✓	✓
Press releases and articles on sectorial magazines and newspapers – reporting project objectives and progresses/results and mentioning the EC support – particularly: Photon Internacional, Sun, Wind and Energy, Energética21, Solar News, Energías Renovables, Era Solar, Photon International, Compound Semiconductor, Electronics Weekly, PV-Technology, FV-Fotovoltaic	✓	✓	✓	✓	✓	✓
Media relation and press conferences – promoted particularly by the Coordinator, and UPM and SAV, which already has an extensive mass media coverage in Italy and Europe (El Pais, El Mundo, RAI, EURONEWS). Becar, as Beghelli group, will publish product specific information books, brochures and leaflets to distribute to its customers worldwide. Beghelli will also make advertisement campaigns on different medias, like Newspapaers, general magazines, radio broadcasting and television broadcasting			✓	✓	✓	✓
Scientific Peer Reviews – assured particularly by academic and research centres partners on different scientific journals and papers such as: Solar Energy Materials and Solar Cells, Progress in Photovoltaics, Optics Express, Journal of Applied Physics , Applied Physics Letters, Journal of Physical Chemistry	✓	✓				

Example

Data Management Plan

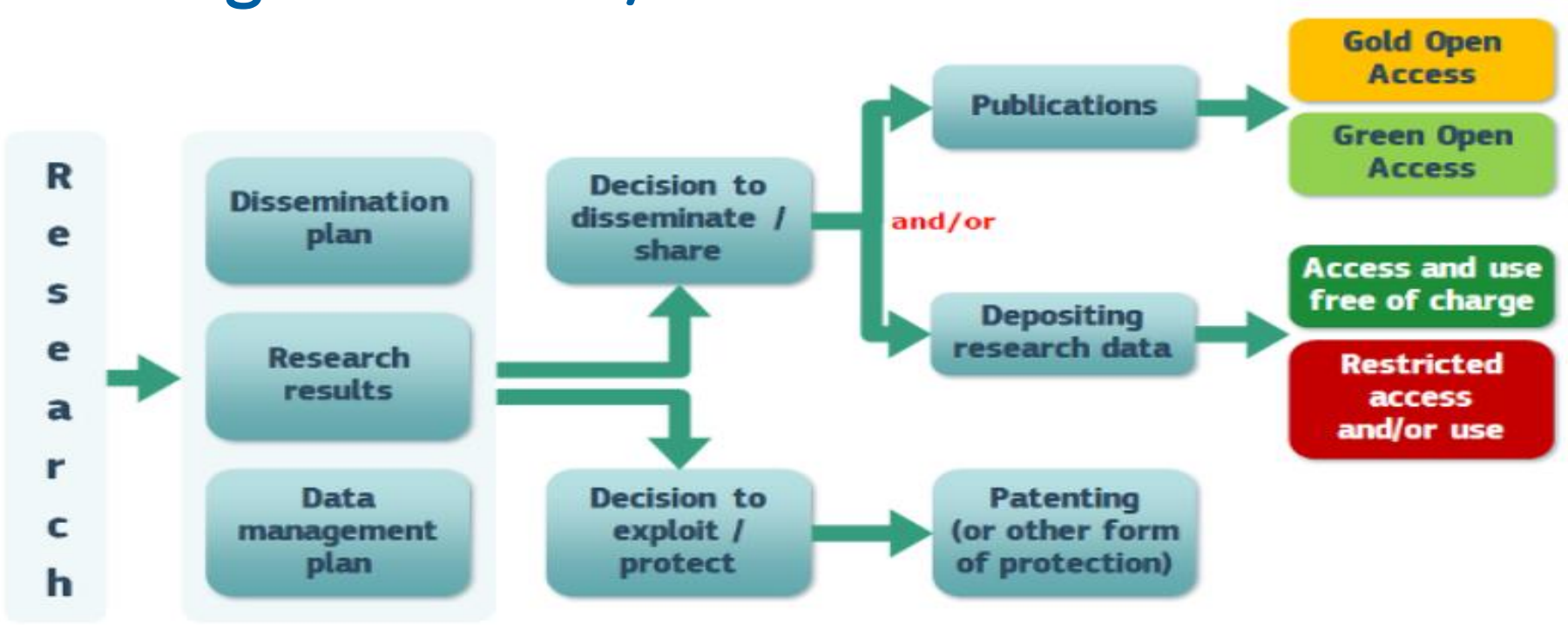
Data Management Plans (DMPs) **is mandatory (deliverable within the first six months**)

- What data will be collected / generated?
- What standards will be used / how will metadata be generated?
- What data will be exploited? What data will bes hared/made open?
- How will data be curated and preserved?

Please, note:

You will need an appropriate **consortium agreement to manage** (amongst other things) **the ownership and access to key knowledge** (IPR, data etc.). Where relevant, these will allow you, collectively and individually, to pursue market opportunities arising from the project's results. The appropriate structure of the consortium to support exploitation is addressed in section 3.3

Come gestire i dati/risultati



Open Access

- Open access publishing (also called 'gold' open access) means that an article is immediately provided in open access mode by the scientific publisher. The associated costs are usually shifted away from readers, and instead (for example) to the university or research institute to which the researcher is affiliated, or to the funding agency supporting the research.

- Self-archiving (also called 'green' open access) means that the published article or the final peer-reviewed manuscript is archived by the researcher - or a representative - in an online repository before, after or alongside its publication. Access to this article is often - but not necessarily - delayed (‘embargo period’), as some scientific publishers may wish to recoup their investment by selling subscriptions and charging pay-per-download/view fees during an exclusivity period.

Open Access (OA) – *Schema riassuntivo*

Green Open Access

- OA documents server (institutional or disciplinary)
- Publication up to 6 or 12 month later
- Consider copyrights

Gold Open Access

- First publication in OA-journal
- Publication fee (eligible in project budget)
- OA-journals: http://doaj.org

If you publish you have to use open access.

Check https://www.openaire.eu/

SHERPA/ROMEO

Publisher copyright policies & self-archiving
http://www.sherpa.ac.uk/romeo/journalbrowse.php

2.2 Measures to maximise impact

b. Communication activities

- *Describe the proposed **communication measures** for promoting the project and its findings during the period of the grant. Measures should be proportionate to the scale of the project, with clear objectives. They should be tailored to the needs of various audiences, including groups beyond the project's own community. Where relevant, include measures for public/societal engagement on issues related to the project.*

Attività di comunicazione - *Esempi*

- Any activity of "**public engagement**" that ensures that your research activities are made known to the society at large in such a way that they can be understood by non-specialists. This could be for example a press release for the general public at the start of the project, an interview in the local radio station after a major achievement of your project or an event in a shopping mall that shows how the outcomes of your project are relevant to our everyday lives.

- Local workshops about the project with a target audience(s) for whom your project is of interest. For example, if a project, which is engaged in research about the preservation of marine environment, organises workshops with coast-guards, fishers and recreational sailors in all Mediterranean countries and also ensures to invite the local press to the workshops.

- A toolkit/ brochure/ presentation to explain your project to students at schools and universities to show how interesting research can be and to promote your research field or assist teachers/ professors in preparing and delivering teaching materials.

Definizione – *Public Engagement*

Public engagement is about involving citizens in the decision-making process or in the research process itself. The public can be involved in Research and Innovation (R&I) in a number of different ways and with different objectives:

- to gather input in the form of opinions (e.g. public opinion surveys and focus groups)
- to gather judgments and decisions that could inform policies (e.g. consensus conferences and citizens' juries).

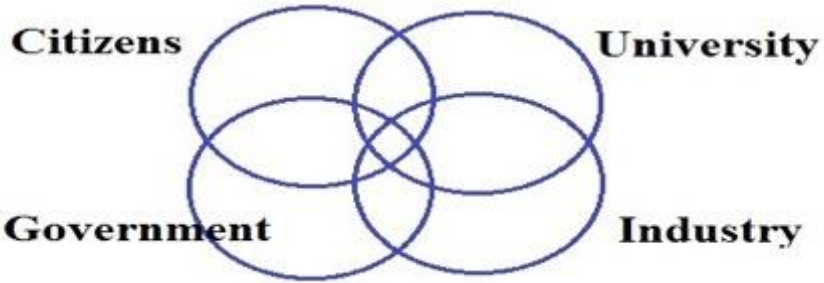
Definizione – *Public Engagement (2)*

Public engagement in Horizon2020 implies the establishment of participatory **multi-actor dialogues** and exchanges to deliberate on matters of science and technology among:

- Researchers,
- policy makers,
- industry
- NGO
- Citizens

Example

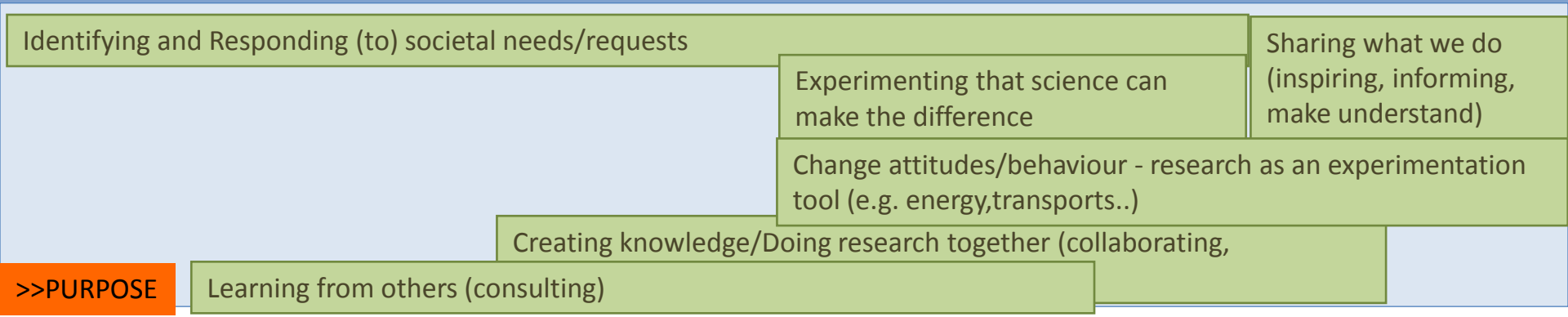
Quadruple Helix Model

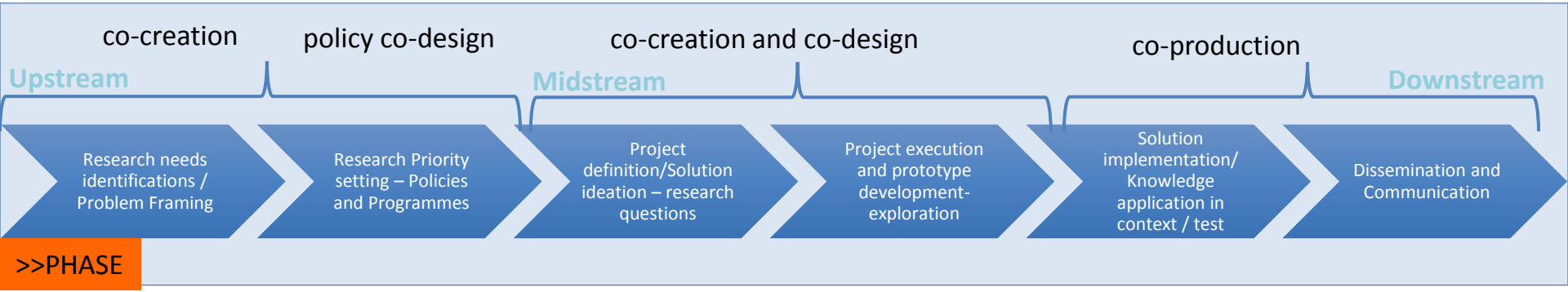


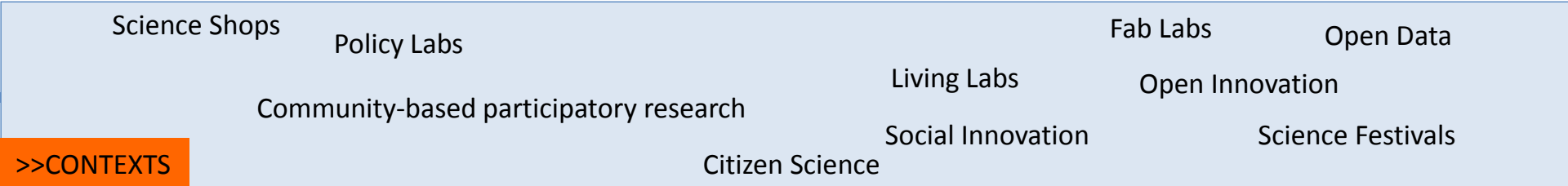
Come fare stakeholder engagement - 1

Due principali criteri da tenere in considerazione per interpretare lo stakeholder engagement:

- QUANDO: Scelta della fase di lavoro in cui ha senso coinvolgere (ideation, implementation…….)
- QUANTO: livello di intensità di co-creation (scala di Arnstein)


Identifying and Responding (to) societal needs/requests
Sharing what we do (inspiring, informing, make understand)
Experimenting that science can make the difference
Change attitudes/behaviour - research as an experimentation tool (e.g. energy,transports..)
Creating knowledge/Doing research together (collaborating,
>>PURPOSE
Learning from others (consulting)


co-creation
policy co-design
co-creation and co-design
co-production
Upstream
Midstream
Downstream
Research needs identifications / Problem Framing
Research Priority setting – Policies and Programmes
Project definition/Solution ideation – research questions
Project execution and prototype development- exploration
Solution implementation/ Knowledge application in context / test
Dissemination and Communication
>>PHASE


Science Shops
Policy Labs
Fab Labs
Open Data
Living Labs
Open Innovation
Community-based participatory research
Social Innovation
Science Festivals
>>CONTEXTS
Citizen Science

Example b) Communication activities

The communication activities will aim to improve the brand awareness, share the mission and highlight the European dimension of the **XxXXxX** project. All the communication activities will be regulated throught the Communication and Dissemination Plan developed at the beginning of the project (**task 6.1**). Furthermore, the dissemination and communication plan will manage the knowledge among the beneficiaries and guide the communication of the project activities to the external audience such as stakeholders, policy maker, researchers, industry and citizens interested to the waste challenge.

The Communication and Dissemination Plan will define the communication and business goals, the target audiences, the main messages to be conveyed and the strategy to be adopted to overcome the barriers that could negatively affect the communication of the **XxXXxX** project.

All communication activities will be developed in according of the communication and dissemination plan and with the active participation of all beneficiaries. Very importantly, constant update and feedbacks from the target groups and especially from all beneficiaries involved in the dissemination activities will be collected and taken into account for the further activities.

Promotional Kit (Task 6.2)

In order to raise awareness regarding the project […].

Web Platform (Task XX)

The "EU stakeholder platform" developed in the task XX will be […].

Web 2.0 (Task 6.4 and Task 6.5)

The communication activities of **XxXXxX** will be especially focused on Web 2.0. […].

Multi-stakeholder policy dialogue workshop (task 6.6)

A final event will be realized at the end of the project. This event […]

3. Implementation

3.1 Work plan

3.2 Management structure, milestones and procedures

3.3 Consortium as a whole

3.4 Resources to be committed

Valutazione dei sub-criteri

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	**Score 3:** *Threshold 3/5*
• 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:	

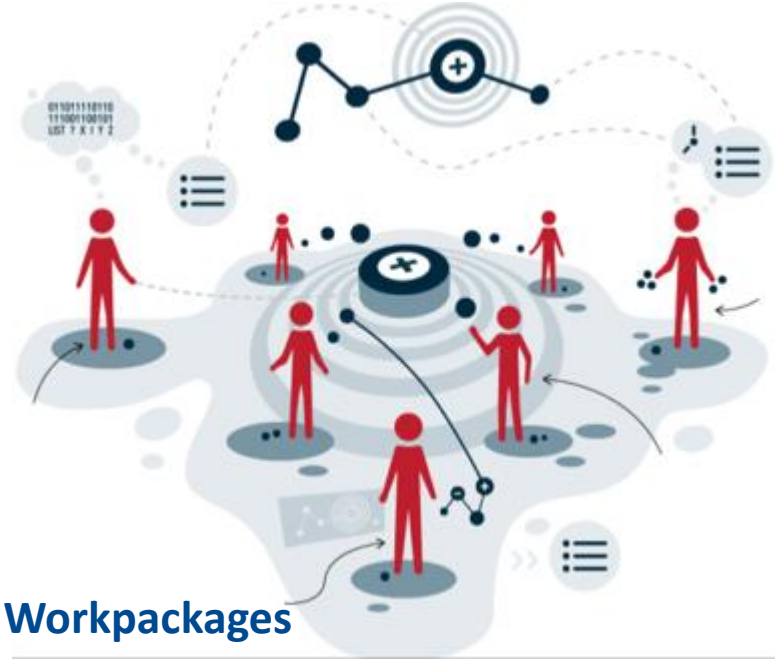
* Experts will also be asked to assess the operational capacity of applicants to carry out the proposed work.

3.1 Work plan – Work packages, deliverables and milestones

- *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.:*
  - *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 or similar).*

Work plan/work packages

➔ Establish plans / structures for the whole project



Lead questions:

- What do I want to do?
- What do I need for which task?
- What to do when?
- How much do I need of what?

Workplan and Workpackages

Partner responsibilities

Time planning

Resource planning

Suggerimento – *Inizia la sezione presentando brevemente la struttura del piano di lavoro*

Overall structure of the work plan

In order to ensure that project objectives are fulfilled, plans to adopt a methodology that organizes all participants with their respective tasks in a coherent manner. A clear project structure will lead participants along a logical line to reach the project objectives, and a continuous communication will guarantee the involvement of all project partners at any time of the project.
The activities of the project are organized in a set of work packages, with clear objectives and mutual links:

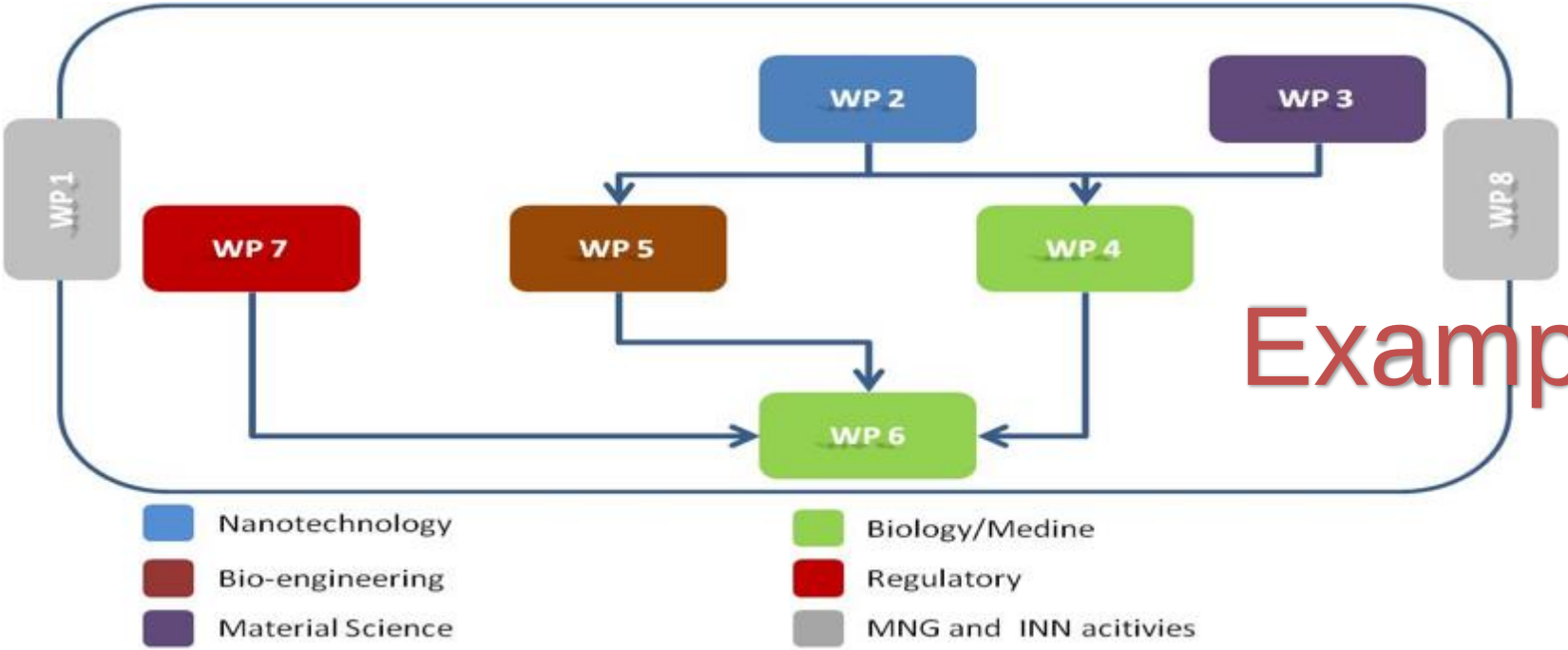
- WP1 – Coordination and Project management: this WP covers all aspects of project management, control and quality to ensure that the project successfully achieves its stated objectives on time and within the budget.
- WP2 – Creation of the Framework: this WP has in charge to review on barriers and opportunities for the development of bio-based value chains. Furthermore, WP2 identifies stakeholders (quadruple helix) and expected benefits from mutual learning and map bio-based products (applications) based on stakeholders' interests. The developed guidelines for the mobilisation and mutual learning approach will be the framework for the subsequent WPs, in particular WP3.
- WP3 – Bio-based Community building: this WP aims at engaging the plurality of voices through creation of the community and establish a mechanism for communication of their needs, interests, aspirations and risks through the methodological approach for Mobilisation and Mutual Learning (MML) workshops.
- WP4 – Creation of the on line social platform and on line mutual learning activities: starting from the outputs of WP2 and WP3, this WP will design the ICT infrastructure to support the community: the design and implementation of the platform; the population of the platforms with contents identified in WP2, enabling a personalized access based on the stakeholders type and interests; the animation of the platform, proposing innovative co-creation and MML events; design and organize the actions aiming at creating the social networks infrastructure to promote the project, attract the relevant stakeholders, raise awareness and create innovative communication activities, including a gamified app to inform the large public about BBP.
- WP5 – Mobilisation and Mutual Learning Events: the main goal of this WP is the promotion of the dialogue among policy makers, implementers and stakeholders in order to develop a common understanding of the different needs and possible solutions. This result will be achieved by using outputs of WP2 and WP3. Note that this common understanding will improve the common knowledge in the on line as all the deliverables will be included as part of knowledge (WP3).
- WP6 – Dissemination, Communication and Exploitation: the main goal of this WP is the dissemination and the communication of the aims, features and results of fostering the participation to the on line and raising awareness on bio-based products.

Example

APRE
Agenzia per la Promozione della Ricerca Europea

enterprise europe network

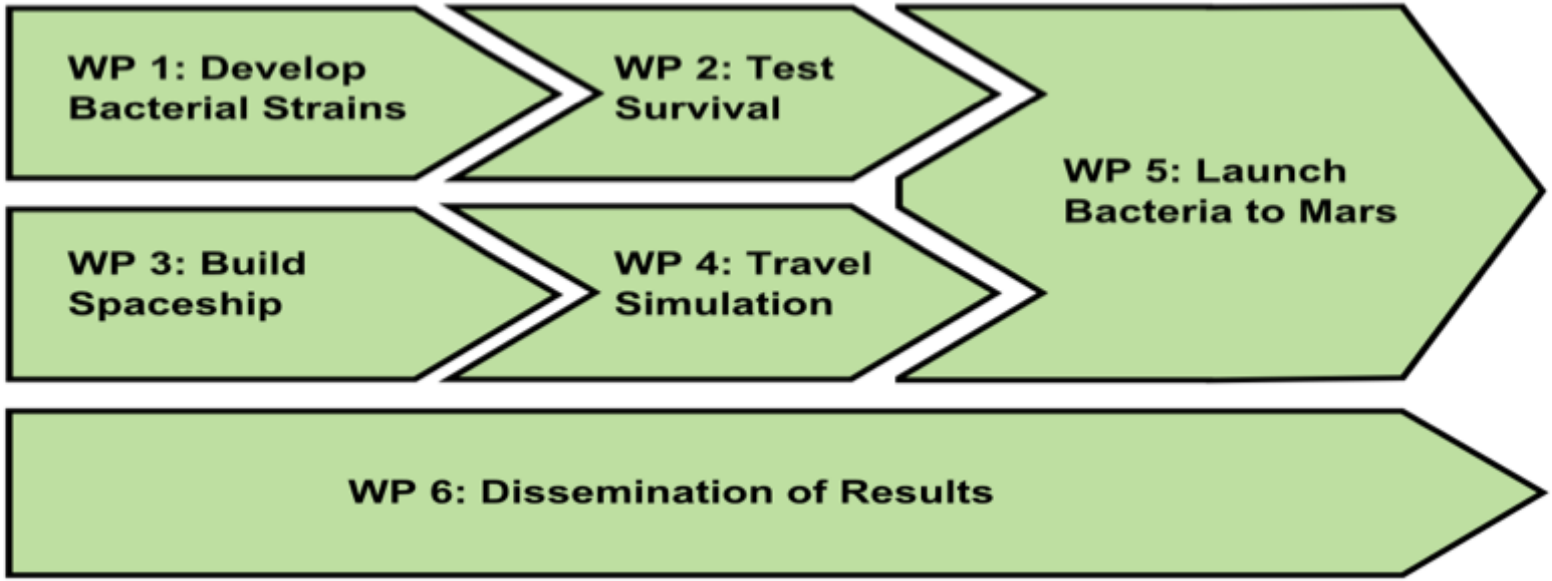
Mostra la struttura del Work Plan – *Il Pert Diagram*



Example

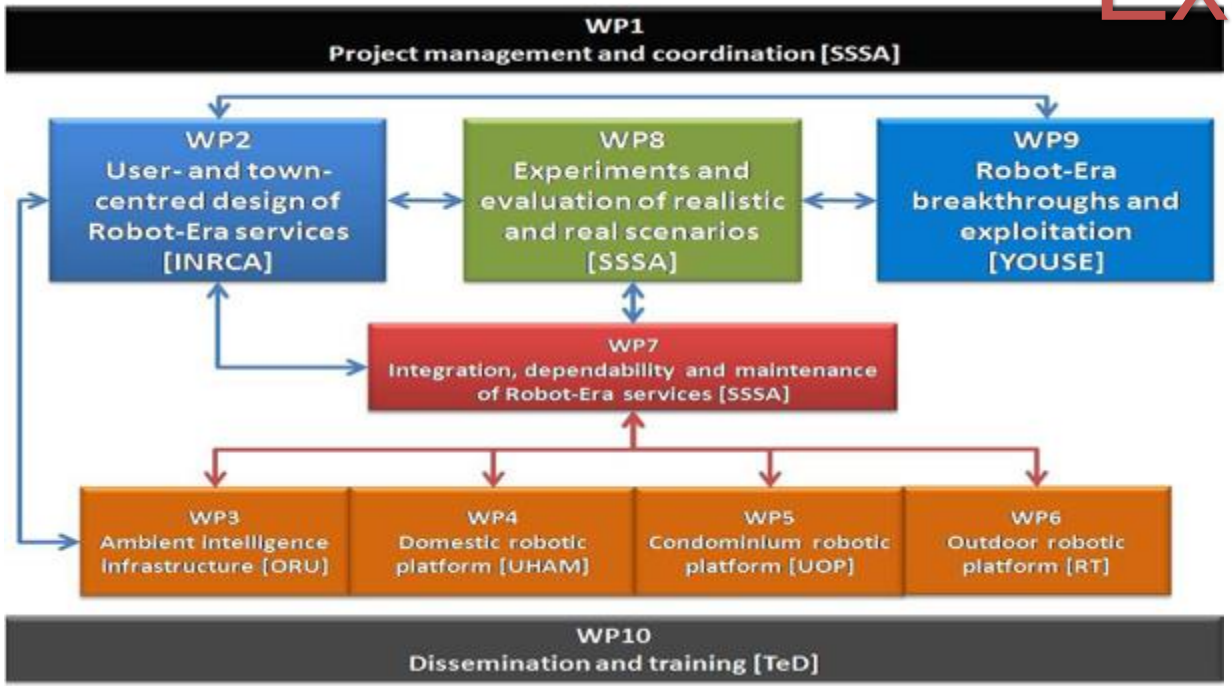
Pert Diagram

Example

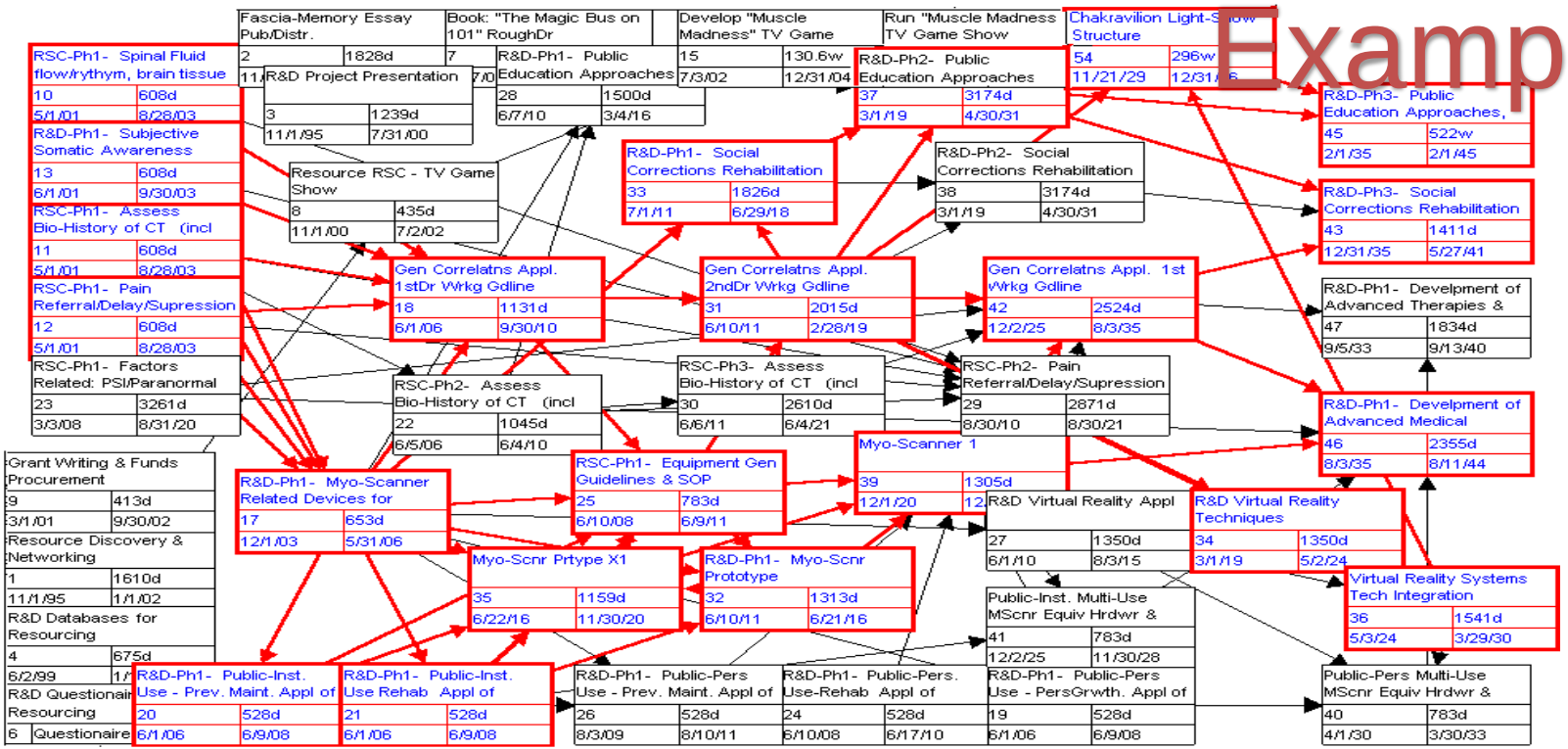


Pert Diagram

Example



Spaghetti PERT



Work Packages
Il template

Table 3.1a: Work package description

For each work package:

Work package number			**Lead beneficiary**				
Work package title							
Participant number							
Short name of participant							
Person months per participant:							
Start month				**End month**			

Objectives

Description of work (where appropriate, broken down into tasks), lead partner and role of participants

Deliverables (brief description and month of delivery)

Come scrivere un Work Package

Tipp: Maximum 3 pages per Workpackage!

Work package number		**Start Date or Starting Event**					
Work package title							
Participant number							
Short name of participant							
Person/months per participant:							

Objectives

SMART, short Bulletpoints, in line with objectives in Part 1!!!

Description of work (where appropriate, broken down into tasks), lead partner and role of participants

Detailed description of tasks (with Taskleader!) to achieve objectives

Deliverables (brief description and month of delivery)

Results of the tasks, optimal 1 Deliverable per Task

Suggerimenti – *Scrivere i Work Packages*

- Give full details. In particular, include details of the resources to be allocated to each work package (and justify them!)
- Base your account on the logical structure of the project
- The number of WPs should be proportionate to the scale and complexity of the project
- A distinct work package on ‘management’ (see section 3.2)
- Visibility in the work plan to ‘dissemination and exploitation’ and ‘communication activities’, either with distinct tasks or distinct work packages
- Include an updated (or confirmed) ‘plan for the dissemination and exploitation of results’ in both the periodic and final reports
- Include a 'data management plan' as a distinct deliverable within the first 6 months of the project.

Work package number	3	Start Date or Starting Event				1	
Work package title	Bio-based community building						
Participant number	1	2	3	4	5	6	7
Short name of participant							
Person/months per participant:	2	2	2	2	9	2	2
Participant number	8	9	10	11	12	13	
Short name of participant							
Person/months per participant:	6	2	2	2	6	6	

Objectives:

The aim of WP3 is to engage the plurality of voices through creation of the community and establish a mechanism for communication of their needs, interests, aspirations and risks through the methodological approach for Mobilisation and Mutual Learning (MML) workshops.

Description of work, lead partner and role of participants

Task 3.1 Classification of stakeholders' groups (Task Leader: [redacted] Participants: All partners, Months1-3)
[redacted] stakeholder community is built around the themes identified for mutual learning to foster bio-based value chains (WP2, Milestone1). This task will identify the thematic stakeholder groups relevant for mobilisation and mutual learning in frames of each of the theme selected in WP2. All the stakeholders will follow the Quadruple Helix Model, involving policy makers, business, research and civil society. This classification is the basis for targeted community building, ensuring that all the necessary competences, interests, knowledge, experience and variety of perspectives in relation to each of the mutual learning contents will be maximally mobilised and nurtured (following the 3D BIOVoices Model).

Task 3.2 Creation of the stakeholders' database (Task Leader: [redacted] Participants: All partners, Months 1-36)
During this task, all the partners will engage in **mapping of the stakeholders**, leveraging existing networks, contacts, initiatives and similar projects (identified in section 1.3.2.) to create the stakeholder database **according to the thematic stakeholders' classification** (D3.1).
A **project contact list** enabling **categorization by theme** (identified in WP2) **and stakeholder type** (policy makers, business, research and civil society/users) is established. The contact list will be created and maintained using a privacy enhancing contact management software (e.g. MailChimp or Icontact) that enables potential contacts to opt in and opt out of the [redacted] project list, thereby respecting privacy principles and good practices in meeting data protection requirements. The contact list will be populated with the mapped contacts, results of the Call for Experts and will be continuously updated and widened via networking initiatives, dissemination activities and searching online public records. Specific emphasis will be made to a well-rounded sex/gender split between engagement of men and women.
This contact list is the central mechanisms for stakeholders' community engagement in multiple level co-creation live events, social platform and social media actions, thereby encouraging the development and use of a peer network.

Task 3.3 Focus group with the initial community (Task Leader: [redacted] Participants: All, Months 7-12)
A call for Experts, together with the [redacted] Advisory Board members, will provide the [redacted] initial community. The **Call for Experts** will be launched through the partners' networks, the cooperation with similar initiatives identified in Task 3.2 and through the social media (in particular professional ones like LinkedIn and thematic discussion groups).
The Experts will be screened based on their Curriculum Vitae with the support of the [redacted] Advisory Board and clustered based on the criteria set in Task 3.2 (minimum target: 60 European experts).
A balanced selection of Experts representing the four categories of the Quadruple Helix Model will be invited to attend the [redacted] Focus Group (40 persons, European level). The focus group has the following aims:

- To validate and improve the selection of the potential value chains and bio-based products (applications) identified in Task 2.1 based on the different stakeholders' interests.
- To test and validate the initial design of the [redacted] mobilisation and mutual learning approach (result of T2.4). According to the multi-stakeholders co-creation methodology, the [redacted] MML approach (Task 2.4) will integrate the different perspectives and provide recommendations (for Task 3.4).
- To collect best practices and lessons learned to foster bio-based value chains.

Task 3.4 BIOVoices methodological approach for Mobilisation and Mutual Learning to foster bio-based value chains (Task Leader: [redacted] Participants: All partners, Months 10-14)
The aim of this task is to define the fina[redacted]methodological approach for Mobilisation and Mutual Learning building on the methodology presented in current proposal section 1.3.3, guidelines for the design of the [redacted] mobilisation and mutual learning approach (T2.4) and feedback from the stakeholders during focus group T3.3. The methodological approach is input to the implementation of the MML events (WP5).

Deliverables (brief description and month of delivery)
D3.1 Stakeholders' classification (M3)
D3.2 Stakeholders' database (M36)
D3.3 Focus group report (M12)
D3.4 BIOVoices methodological approach for Mobilisation and Mutual Learning (M14)

Work package number	4	Start Date or Starting Event				1	
Work package title	Creation of the on line [redacted] and on line mutual learning activities						
Participant number	1	2	3	4	5	6	7
Short name of participant		[redacted]					
Person/months per participant:	3	13	3	12	3	3	3
Participant number	8	9	10	11	12	13	
Short name of participant	[redacted]						
Person/months per participant:	3	3	3	3	3	3	

Objectives:

Based on the outputs of WP2 and WP3, and thanks to the direct engagement of the community (WP3), This WP will address the co-design the [redacted] social platform. The Web platform will be designed to deliver personalized access to the existing knowledge, tools and services and in parallel, foster the creation of the [redacted] MML multidisciplinary community, thereby promoting participation and ensuring the continuation and sustainability of the platform after the project ends.
The [redacted] will also act as a catalyser to attract bio-based communities and actors, enlarging the stakeholders community involved in the early stages of the project within WP2 and WP3. To this end, the key strategic issues related to bio-based policies and developments identified by the [redacted] project will be used as themes to facilitate the convergence of bio-based actors and communities. Within WP3, the list of key strategic issues will be discussed, and where needed amended or integrated, according to the dialogue that the [redacted] social platform will facilitate within the bio-based research community.
The [redacted] according to the socio-technical approach proposed in this project, represent the technical infrastructure that allows efficiently managing on-line communities (starting from e-communities already existing in the bio-based sector, and applicable in other application domains) and providing and managing participatory tools, co-production of contents, knowledge and co-creation, initiatives launching, creative spaces creation, etc.
Finally, this WP will design and organize the actions aiming at creating the [redacted] social networks infrastructure, aiming at promoting the project (all SM), attracting relevant stakeholders (especially through the professional social media, like LinkedIn), raising awareness and creating innovative communication activities, targeting the large public/consumers (particularly children, families and teachers). To address the consumers an app, providing gamified information about BB products will be produced in this task.

Description of work, lead partner and role of participants

Task 4.1 Design and implementation of a sustainable [redacted] multi-stakeholder on line social platform (Task Leader: [redacted] Participants [redacted] Months 1-6)
This task aims at identifying at the beginning users' requirements of the [redacted] social platform and at creatin

WP 'MANAGEMENT: EXAMPLES

CSA with 6 partners, 500.000€ EC contribution, 36 months duration (2 reporting periods)

The coordinator is the one mainly involved in the MGT activities,
but other partners also contribute with minor efforts
(es. *reporting*)

Work package number	4	**Start date or starting event:**				1	
Work package title	Management						
Activity Type[22]	MGT						
Beneficiary number	1	2	3	4	5	6	
Beneficiary short name	APRE	TG	ICA	PKC	DLR	IP	
Person-months per beneficiary:	8,50	0,20	0,20	0,20	0,20	0,20	

Objectives

- Manage the Consortium;
- Ensure proper communication within the Consortium;
- Coordinate the activities;
- Maintain an efficient relation with the European Commission and report to the Scientific Officer;
- Prepare reports for the European Commission.

Description of work and role of beneficiaries

Task leader: APRE

Task 4.1 Administrative management

APRE will be responsible for all contractual documents (management report, periodic report, cost statement, etc.) as defined in the grant agreement of the project. APRE will collect the necessary information from the partners, elaborate the reports and transmit them to the EC. Further information will be provided to the EC whenever necessary. APRE will also organize each year, in close collaboration with the host organization, the 3 consortium meetings. APRE will also organize the virtual consortium meeting at the beginning of the second year (through a "Flash meeting"[23]). APRE will elaborate the agenda, will send convocations, will lead the meeting and will elaborate and distribute the minutes. APRE will keep up relations with the partners and will represent them when liaising with the European Commission. The **Consortium Agreement** will define Access2Canada's procedures for administrative, financial and legal management.

Task 4.2 Project management and monitoring

Task leader: APRE

APRE will be responsible for overall management and monitoring of project activities. APRE will monitor the progress, budget allocation and refine and update the work plan if necessary. The interim report will be the main tool for assessing the progress towards Access2Canada's expected results and ultimately, its specific objective.

Task 4.3 Communication Management

Task leader: APRE with inputs from all beneficiaries as needed

An e-mail based communication flow with the entire consortium will be established in order to exchange information as well as to monitor the efficiency and progress of the work. The coordinator will be the intermediary between the consortium and the project officer, in order to ensure the coordination with the European Commission.

Deliverables (brief description and month of delivery)

D4.1. 4 Consortium meeting reports: agenda list of participants, points of discussion and decisions (M 1-36)
D4.2. 2 Periodic Reports (M 18, 36)
D4.3. 1 Final Report (M 36)
D4.4. Interim report form (M 9, 27)

Milestones

M1 Kick off meeting(M1)

APRE
Agenzia per la Promozione della Ricerca Europea

Table 3.1c: List of Deliverables[6]

Deliverable (number)	Deliverable name	Work package number	Short name of lead participant	Type	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)

Deliverable

Definition: Deliverable

- Distinct output / **concrete result of the project** / WP / task
- 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 – **so be sure you can deliver it!**
- **TIPP: maximum 5 -7 per WP**

Good examples:

- *Report on synthetic production of compound x*
- *Results of metabolomics for neurodegeneration-protein mouse models*
- *Project quality procedures established*
- *Study report demonstrating clinical efficacy over 3 months*

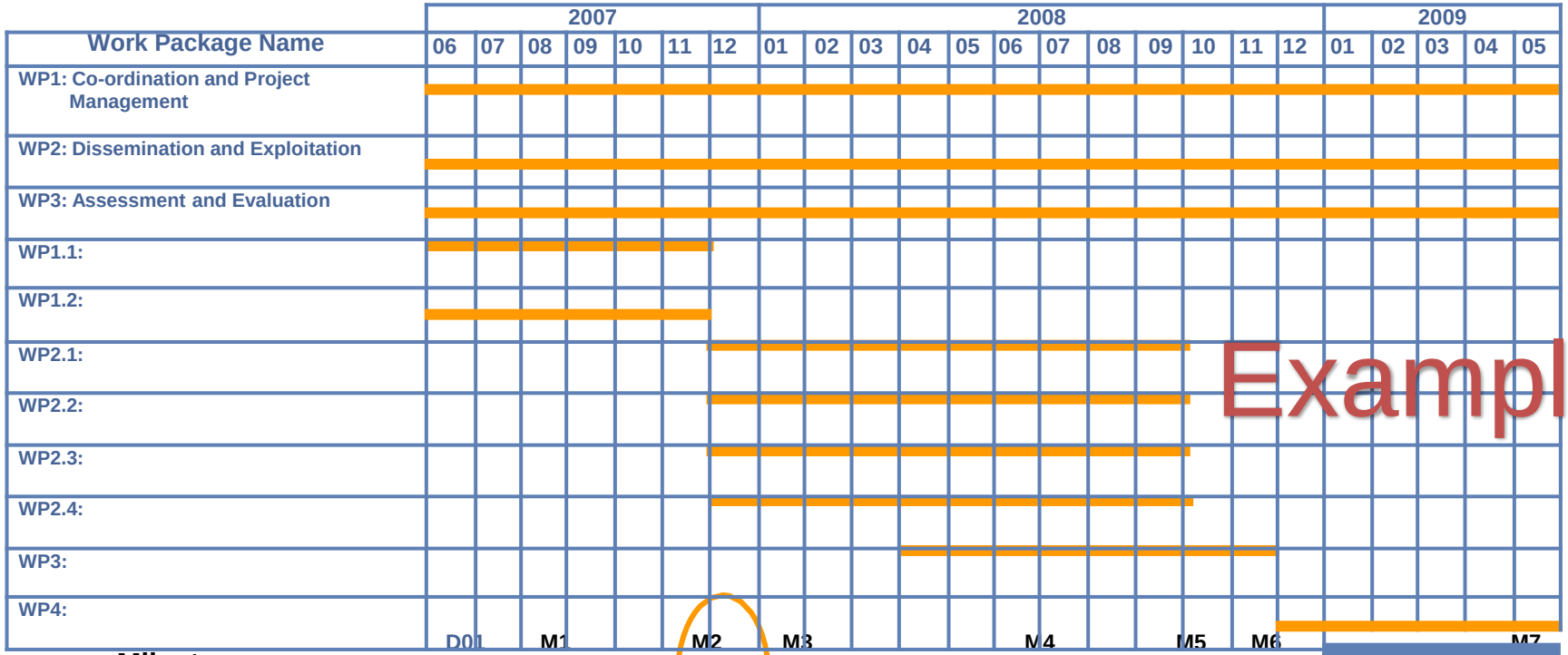
GANTT Chart

M: Meeting; SC: Steering Committee D: Deliverables

WP	Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
WP1	**Coordination and Project Management**	WP LEADER																																			
	Task 1.1 Consortium Management	M					SC						M						SC						M						SC						M
	Task 1.2 Technical Management			D																																	
	Task 1.3 Project Administration																		D																		D
WP2	**Creation of the framework**	WP LEADER																																			
	Task 2.1 Review on barriers and opportunities for the development of bio-based value chains				D																																
	Task 2.2 Stakeholders (quadruple helix) interests' and motivations' identification					D																															
	Task 2.3 Mapping bio-based products (applications) based on stakeholders' interests							D																													
	Task 2.4 Guidelines for the design of the MML approach									D																											
WP3	**Community building**	WP LEADER																																			
	Task 3.1 Classification of stakeholders groups			D																																	
	Task 3.2 Creation of the stakeholders' database																																				D
	Task 3.3 Focus group with the initial												D																								
	Task 3.4 l methodological approach for MML to foster bio-based value chains														D																						
WP4	**Creation of the on line ocial platform and on line mutual learning activities**	WP LEADER																																			
	Task 4.1 Design and implementation of a sustainable ulti-stakeholder on line social platform						D																												D		
	Task 4.2 Population of the multi-stakeholder on line platform with contents											D																									D
	Task 4.3 Animation of the multi-stakeholders Platform																								D												D
	Task 4.4 Social Media innovative engagement and animation																		D						D												D
WP5	**Mobilisation and Mutual Learning Events**	WP LEADER																																			
	Task 5.1 European MML																								D												D
	Task 5.2 National MML																																				
	Task 5.3 Local/Regional MML																																				
	Task 5.4 Action Plan to raise citizen's awareness and foster collaboration among stakeholders																																			D	
WP6	**Dissemination, Communication and Exploitation**	WP LEADER																																			
	Task 6.1: Strategy for Impact, Dissemination and Communication				D																																
	Task 6.2: Execution of the Dissemination and Communication Plan		D	D									D												D												D
	Task 6.3 Exploitation and Sustainability						D																														D
	Task 6.4 inal event																																				D

Example

GANTT Chart


2007
2008
2009
Work Package Name
06 07 08 09 10 11 12 01 02 03 04 05 06 07 08 09 10 11 12 01 02 03 04 05
WP1: Co-ordination and Project Management
WP2: Dissemination and Exploitation
WP3: Assessment and Evaluation
WP1.1:
WP1.2:
WP2.1:
WP2.2:
WP2.3:
WP2.4:
WP3:
WP4:
D01
M1
M2
M3
M4
M5
M6
M7
Milestones
Deliverables
D121
D122
D123
D211
D221
D231
D241
D311
D321
D331
D411
D421
D431
D441
Example

3.2 Management structure 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.*
- *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)*

Creare la struttura organizzativa adeguata

- **Decision making** and/or executive bodies, **composition**
- **Competencies** (coordination, monitoring, decision-making) procedures for appointment
- **Timing** and modalities for meetings
- **Voting rules** (unanimously, majority)

- **Procedures for GA/CA revision**
- **Decisions related to defaulting or leaving parties, access of new beneficiaries**

Tip: DESCA Model Consortium Agreement describes typical procedures!

http://www.desca-2020.eu/

Suggerimenti – Struttura organizzativa

- Describe each body: composition and tasks
- Describe how each body decides, when meets, where (if virtually and physically)
- Describe the management procedures: reports, quality check, meetings, etc.
- For external bodies add the names of the persons that will be involved (and the CVs as annex in part 4-5)

Common organizational bodies

- GENERAL ASSEMBLY → all partners; the "consortium" in the GA
- EXECUTIVE COMMITTEE (or Management Board) → (coordinator+ WP leaders)
- OTHER SPECIFIC BOARDs → IPR; Gender; Ethical aspects etc.

Struttura organizzativa

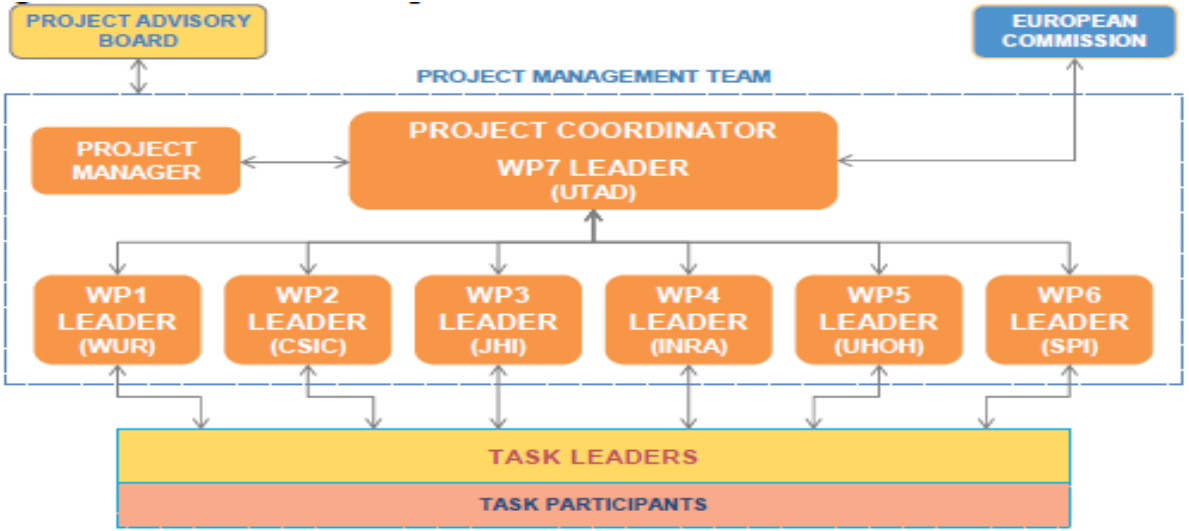
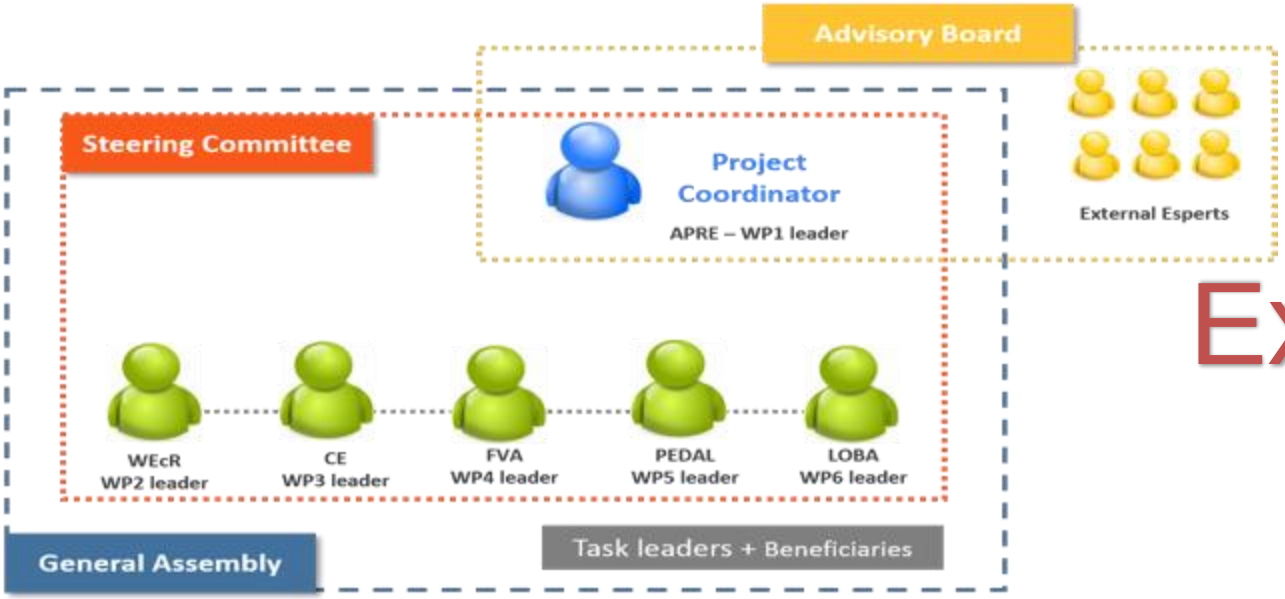


Figure 5 – Management Structure

Example

Struttura organizzativa



Example

Definizione – *Innovation management*

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.

Why an innovation management:

A key objective of publicly-funded research is that it should lead to the exploitation of results, which goes one step further than the mere production and dissemination of new scientific knowledge.

"How to convert research into commercial success stories?".

"How to convert research into commercial success story?"

Innovation management – *Come dargli il giusto spazio in proposta (1)*

- Identify key application(s) of the envisaged results and describe the main technical advantages of the new solution(s).
- Define the maturity of the technology addressed and link it to the timescale and scope of the innovation process.
- Identify measures needed to support the uptake (demonstration, prototyping, proof of concept, validation, testing, standardisation).
- Describe the industrial/commercial involvement of individual partners to ensure exploitation of the results, and how the involvement of SMEs has been addressed. It can show if the whole value chain is considered in the project planning, the involvement of potential technology end users, the expertise in exploitation, etc

Innovation management – *Come dargli il giusto spazio in proposta (2)*

- Integrate technology intelligence elements through analysis of scientific state-of-the-art, patent search, existing standards, etc
- Demonstrate and quantify knowledge about the existing and potential new markets, the competitors and the existing technologies.
- Quantify the direct expected impact (economic and commercial) for partner organisations: benefits, new markets penetration, new clients, creation of new companies, updating of portfolio, diversification, internationalization, employment, etc.
- Quantify the wider potential impact at European and global scale, economic as well as other societal benefits

Innovation management – *Come dargli il giusto spazio in proposta (3)*

- Include a specific work-package focused on the market exploitation planned and the roles and synergies between the partners' experiences/ competencies/ capabilities, how partners will protect, share, manage, and ensure the IPR actual exploitation, the commercialization route envisaged for the exploitation of the results (market strategy, distribution channels, etc.).
- Include an exploitation plan within the proposal, as detailed as possible.
- Describe deliverables such as market studies, detailed exploitation plans, exploitation agreements, IPR status, etc
- Describe the planned resources for addressing exploitation and impact during the project

Milestone

- Are **control points** where decisions are needed with regard to the next stage of the project.
- For example, a milestone **may occur when a major result has been achieved, if its successful attainment is required for the next phase of work**.
- Another example would be a point when the consortium must decide which of several technologies to adopt for further development.

Milestone

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.

Key questions

- Status of the project?
- Aims achieved so far?
- Need for change of direction?

Milestone

Table 3.2 a: List of milestones

Milestone number	Milestone name	Related work package(s)	Due date (in month)	Means of verification
1	Quality assurance, Risk Management, Ethical and Gender issues, Data and Knowledge Management	1	3	Report (D1.2)
2	Number of themes identified for mutual learning to foster bio-based value chains	2	9	Report (D2.4)
3	BIOVoices Mobilisation and Mutual Learning methodology	3	14	Report (D3.4)
4	BIOVoices multi-stakeolder on line social infrastructure	4	6	Other (D4.1)
5	Identification of new bio-based business model within society	5	24	Report (D5.1)
6	Strategy for Impact, Dissemination and Communication Plan	6	4	Report (D6.1)

Example

Risk management

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.

3.2.6. Critical risks for the project's implementation and associated risk-mitigation measures

The [redacted] consortium members' previous experience in European projects allowed for a thorough preparation of the project methodology to ensure a successful implementation. This includes also the consideration for potential risks that may arise along its development, to which the consortium must be able to tackle. As such, the following table lists a number of potential risks that have been identified, the involved Work Package(s) (whose leader will be responsible for controlling it), and the respective mitigation measure(s)

Table 8 – Critical risks for implementation

Description of risk (indicate level of likelihood: Low/Medium/High)	WP involved	Proposed risk-mitigation measures
Disagreement and/or conflict among partners (Low)	All	[redacted] will mediate and try to conciliate disagreements between the partners. If considered necessary by the coordinator, the matter may be discussed with the EC.
Lack or insufficient achievement of project results, milestones and deliverables (time and quality problems) (Medium)	All	All WP leaders (supervised by UTAD) will undertake strict management and quality control procedures intended to anticipate such problems. In case they occur, the WP leader must meet with UTAD to discuss how to overcome the situation.
Low level of engagement of actors in the development of the activities (Medium)	All	The PMT, coordinated b[redacted], will ensure that the activities are targeted to the right stakeholders using the most adequate tools to ensure they are actively engaged.
Lack of sustainability in the implemented activities (Medium)	WP6	WP6 leader will ensure that all partners, members of the Advisory Board and external organizations supporting the project are involved in the activities of the network, guaranteeing it will continue after the end of the project.

Example

1.3.5 Risks analysis and contingency plans

The technical committee, responsible of the project's monitoring activity, will continuously check the project's development taking special care of the risks. The programme is focused on the realization of a new highly reliable, high efficiency, low manufacturing cost HCPV generator: the main risk of the activities is not being able to meet those requirements. The cost of a photovoltaic generator is strictly dependent on the generator's conversion efficiency and thus its energy yield. The higher the efficiency, the lower the cost constrains, so the risk analysis will carefully consider the balance between efficiency and manufacturing cost. The risk analysis must be focused on the development of all the critical parts that affect the generator's performance.

In order to control and minimize the risk, the programme has many check points that enable the easy assessment of the required targets. The WP1 includes the RTD activities regarding all the parts that will be developed and, for each part (the module, the optics, the cell, the receiver, the tracker and the inverter) the deliverables will be evaluated to check their compliance with the project's target. The subsequent development activities (WP2÷WP8) will be continuously monitored to check the effective implementation of the designed results.

Hereafter follows a table indicating the risks and related contingency plans:

Ref.	Risk	Likelihood	Severity	Contingency action	Responsibility
HCPV Cell, WP1, WP5	The final cell efficiency being much lower that 45%	low	medium	Stress the efficiency of the optical part to recover the cell's performance loss respect to the target	[redacted]
Optics design, WP1	The optical system doesn't meet the angular performance requirements	low	low	Work harder on the pilot module's assembly line to guarantee a higher precision in the optics and receivers assembly process. Stress the tracker's accuracy	[redacted]
Primary optical element, WP4	The plastic injected reflector does not meet the	low	high	Try different materials and injecting machines. Make a second mould with	[redacted]

Example

The following table quantifies risks in obtaining project objectives. The "Likelihood" (L) column indicates the possibility that the risk occurs. Values range from 1 to 5: lower possibilities are indicated by lower values. The "Impact" (I) column indicates the impact on the successful completion of the project objective, in case the risk occurs. Values range from 1 to 5: lower impacts are indicated by lower values. Finally, a measure of total risks is calculated as Likelihood x Impact (L x I):

- Risk < 10 is considered LOW;
- Risk between 11 and 15 is considered MEDIUM;
- Risk between 16 and 20 is considered HIGH;
- Risk > 20 is considered UNACCEPTABLE.

For risks > 10, solutions are provided.

Risk	L	I	L x I	Solution
Failure in the design of FBG parameters to optimise the system sensitivity for a given interrogation approach	1	5	5	<10
Failure in the mounting of the sensors to enhance the thermal sensitivity	2	3	6	<10
Incompatibility of wavelengths with the spectroscopic sensing that is to take place	1	5	5	<10
Failure in the design of FBG coated with polymeric materials to enhance the pressure and acoustic sensitivity	1	5	5	<10
Failure to achieve materials layer with opportune mechanical properties to enhance the sensor sensitivity	2	3	6	<10
Failure in the integration of the polymeric layer with FBG	1	5	5	<10
Incompatibility of FBG wavelengths with the thermal and chemical sensors	1	5	5	<10
Failure to obtain metal indicator dyes	1	5	5	<10
Failure to obtain metal indicator selective layers	2	5	10	Failure to obtain selective indicator layers will be overcome purchasing commercial indicator dyes that might have a lower selectivity. This drawback will be tackled applying chemometric techniques.
Failure to combine metal indicator selective layers with optical fibre	1	5	5	<10
Failure to achieve adequate selectivity and detection limits for metal analysis in seawaters	3	5	15	Failure to achieve adequate selectivity and detection limits in seawaters will be overcome by using fluorescence or interferometry measurements and chemometric techniques
Failure to achieve adequate long term stability for metal sensors in situ application	3	3	9	<10
Failure to obtain a selective PAHs preconcetrating membrane	1	5	5	<10
Failure to achieve adequate selectivity and	3	5	15	Failure to achieve adequate

Example

3.3 Consortium as a whole

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? 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? How will they be able to work effectively together?*
- *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 2.3).*
- ***Other countries**: If one or more of the participants requesting EU funding is based in a country 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*

Suggerimenti – Indicazioni da seguire

- Describe how the consortium as a whole will **achieve the project aims**.
- Describe **why these partners** are necessary to achieve the project aims.
- Describe the **partner‘s special skills** relevant to the project.
- Describe the **complementarity** of the partners.
- Describe the **balance** of the consortium.
- Describe how **many SME/industry partners** are involved: tasks, status, budget
- Describe how the **(commercial) exploitation of results** will be ensured.
- Describe (if applicable) why **partners from other industrial or third countries** need to be involved – especially if you are asking for funding for third country partners!.

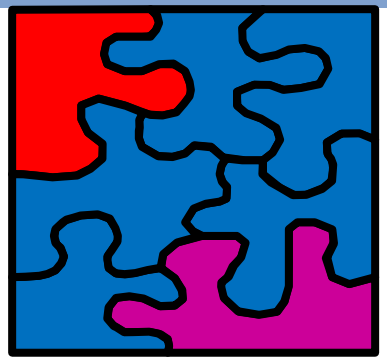
You are only part of the puzzle!

Always look for

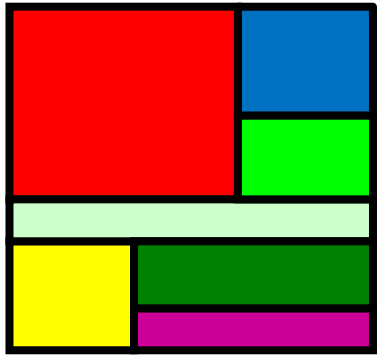
Competence, Balance, Complementarity, Excellence, Commitment

Create your consortium in line with the project objectives

KEEP CONSORTIUM MOTIVATED!!

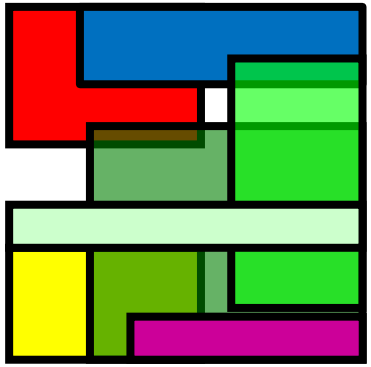


One Country ruling

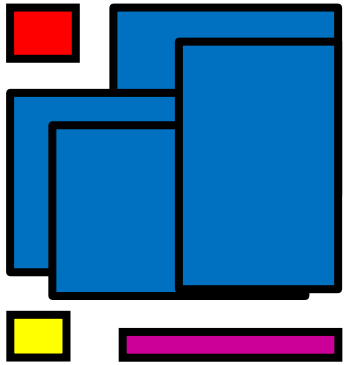


Partners not integrated

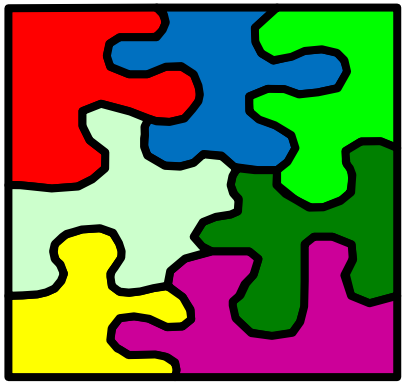
European Complementar Integrated



Gaps and overlappings



All possible shortcomings

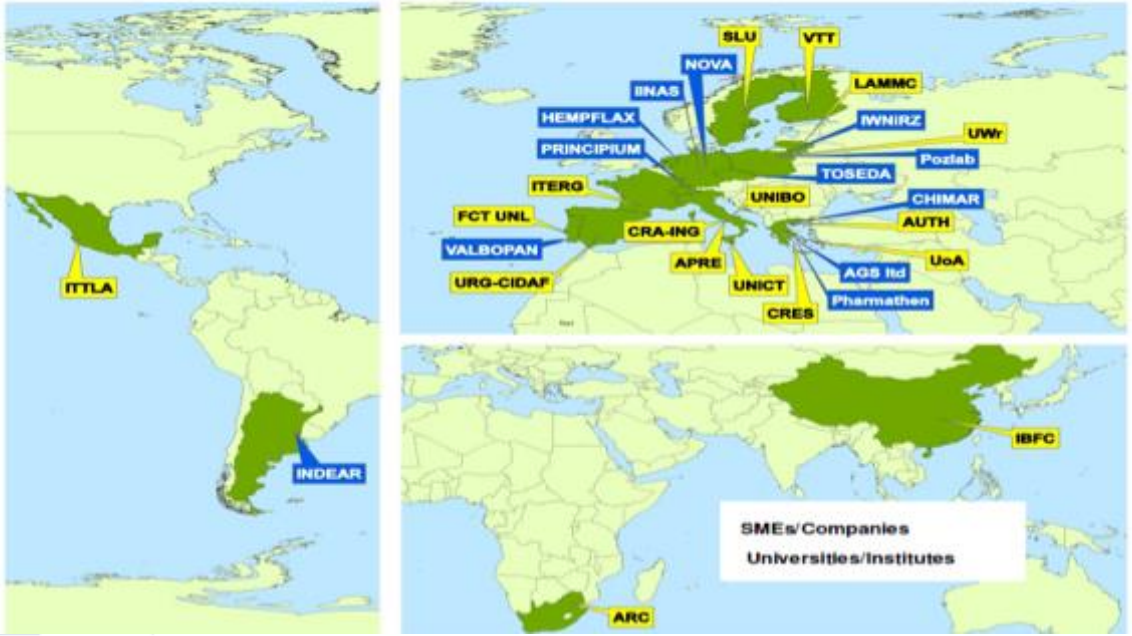


2.3 Consortium as a whole

A combination of complementary expertise and resources available in Europe-wide different research institutes and SMEs has been established in the consortium ensuring the critical mass required to accomplish the foreseen work packages and tasks of the proposed project. Additionally, each one of the participating groups is expected, through the exchange of technical knowledge and co-operation, to promote its expertise at a higher rate leading to an accelerated progress at a European level.

A total number of thirty partners have been selected to cover the work programme of the VIP Products allocated in eleven work packages. Eleven partners are ***SMEs*** and have been scheduled to share the 30% of the total EU requested contribution. One large company participates in the VIP Products consortium.

An active engagement of ***International Cooperation Partner Countries*** has been established in VIP Products consortium. Apart from the European participants four partners from ICPC participate: IBFC from China, ARC from South Africa, and ITTLA from Mexico and INDEAR from Argentina.



Example

partners.

Table 2.1 Partner skills and effort

NR	PARTNER	COUNTRY	SPECIFIC SKILLS	ROLE IN THE PROJECT
1	[redacted]	Italy	[redacted]velops and manages the activities related to the generation of energy from renewable sources; [redacted]nbines all activities in wind, solar, geothermal and mini-hydro in Italy of Enel and an additional 13 Countries, for a total installed capacity of approx. 4,500 MW; - Long experience in construction of power plant; - Research in renewable energy power generation.	- Project Coordinator - Demo solar plant design, construction, operation and optimization - Design and construction of the solar field
2	[redacted]	Germany	- [redacted] Solar is a market and technology leader for receivers for Concentrated Solar Power plants with parabolic trough technology - [redacted] Solar has over 51 years experience in solar technology and provides core components in the value chain of solar generation system.	- Solar receiver design and technological development; - Solar receiver supply and testing
3	[redacted]	Italy	- [redacted] is a company derivated by [redacted] S.p.A., which wa[redacted] Italian Stock Exchange. M&I is an international Engineering & Main Contracting Group which provides a comprehensive, integrated system of services and installations in various market sectors - Professional experience in the engineering field and then in engineering company management	- Scientific Director - Design and construction of Power Block - Design and supply thermal storage
4	[redacted]	Poland	- [redacted] is specialized in the production of industrial plant; - Its engineering activities in procurement of components, equipments and turn-key plants	- Salt to steam generator development; - Salt to steam generator construction; - Salt to steam generator operation

Example

2.3 *Consortium as a whole*

The consortium of the proposed [redacted] collaborative project is made up of 9 European [redacted]nts, coming from 6 different Member States of the European Union.
[redacted] project requires a consortium team whose size is at least at European level dimensions. The consortium team and the role of each participant are illustrated in *Table 6.*

*Table 6. Consortium partners with description of major roles in the **NeStoRe** project*

Organisation	Type	Country	Major roles in the *NeStoRe* project
1. [redacted]	Research	IT	– project coordinator (**WP0**); – member o[redacted]r project exploitation of results; – leader partner in the development of *mCHP and Energy Efficient burner* (**WP1**); – role in the development and integration of the proper technology for pollution reduction (**WP2**); – leading role in the demonstration activities (**WP3**); – leading role in exploitation (**WP6**).
2. [redacted]	University	A	– leader partner in the demonstration activities (**WP3**); – role in the activities for the pollution limitation and retrofitting of the system (**WP2**); – role in the economical analysis (**WP4**).
3. [redacted]	University	N	– leader partner in boilers and stoves' POLICIES and development of a European Legal Framework (**WP5**); – role in the socio economic analysis (**WP4**).
4. [redacted]	SME (?)	DE	– member o[redacted]r project exploitation of

Example

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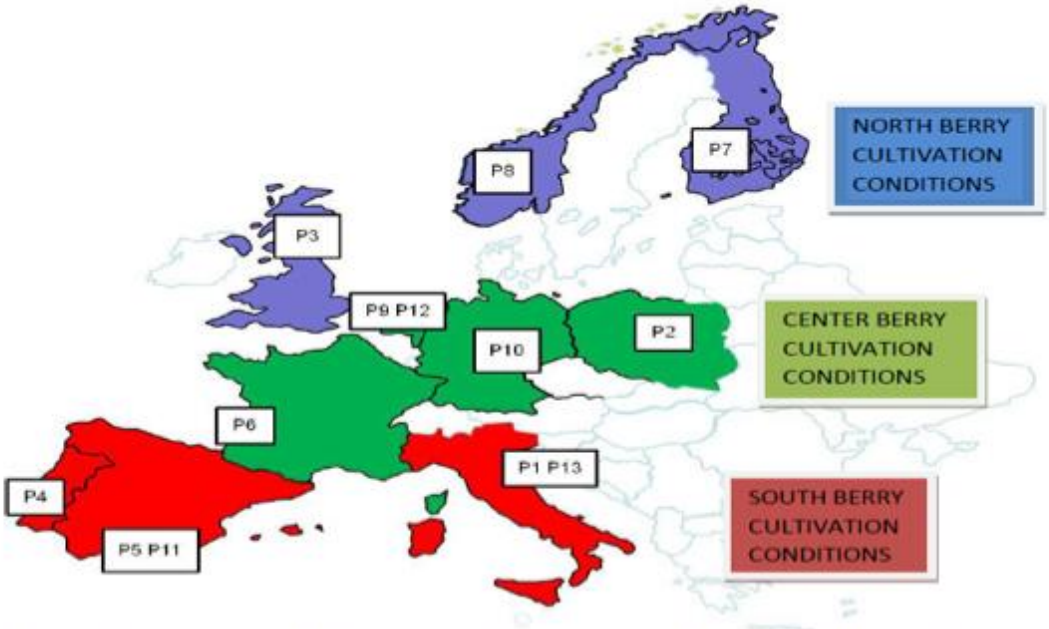

Figure 2.3.1. Geographical distribution of the partners in the 3 main EU climatic areas.

The integration of different complementary backgrounds and expertise of each partner will contribute to achieve a **Holistic Approach** to the research challenges. The partners show complementary and synergic competences that will be integrated in the different WPs to fulfil the project objectives by following the South - to - North and West - to - East approach described above. In fact, Partners operating in the different EU climatic areas are able to integrate their competences and expertises on the genetic material, plant physiology, cultivation systems and fruit quality developed for the 3 different climatic conditions (Table 3.2.1). The added value of the project will be the integration among the experiences of each research groups of each climatic area and within the climatic areas.

Example

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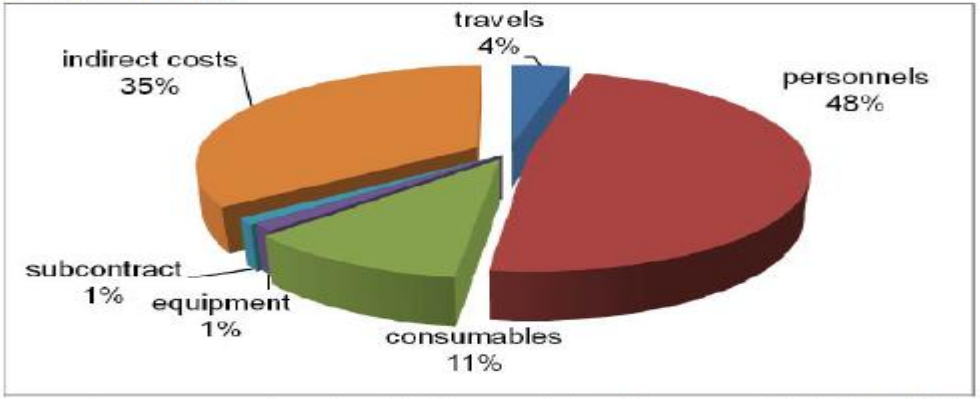
3.4 Resources to be committed

- *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)*

Example

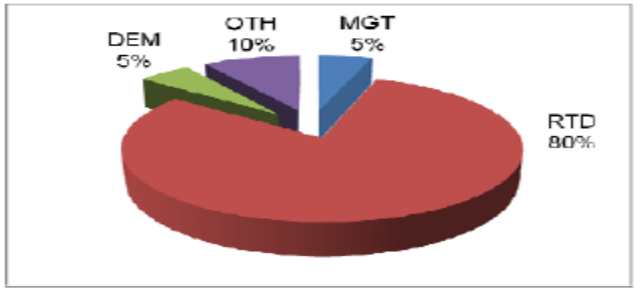
2.4 Resources to be committed

[redacted] has 4-year total budget of **EUR 9,331,713** and request a total contribution from the EC of **EUR 7,210,459** to carry out the proposed work plan. The project activities will benefit from already existing facilities and equipment owned by partners (described in the sections 2.2). The distribution of [redacted] costs is shown below:



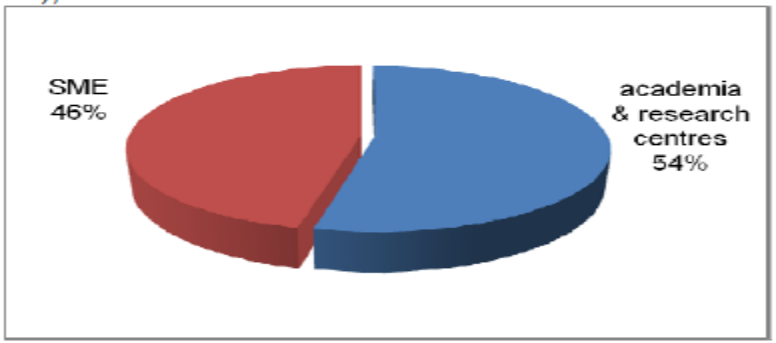
Travels and subsistence costs (EUR 373,500): Travel expenses are distributed among all partners in order to attend 5 project meetings in Europe (in RTD category cost) and to take part to conferences (at least 60 in total as indicated in section 3.2) for disseminating project results (in OTHER category cost). One additional travel per year is foreseen for the WP leaders in RTD in order to attend the Executive Committee meetings. Costs have been estimated taking into account differences in transport fares varying depending on the country of origin.
Indirect costs: the indirect costs indicated by the partners were included in accordance with the methods they use as indicated in the forms A3.

The main project costs entails a combination of research and development (RTD 80%) demonstration (DEM 5%), management (MGT 5%) and dissemination & exploitation activities (OTHER 10%), as shown below.



Example

The total budget has reached a good balance between SME partners (about 46%) and academia & research centers (about 54%), as shown below.



4. Members of the consortium

4.1 Participants

Max 2 pages per applicant

Please provide, for each participant, the following (if available):

- *a description of the legal entity and its main tasks, with an explanation of how its profile matches the tasks in the proposal;*
- *a curriculum vitae or description of the profile of the persons, 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;*
- *[any other supporting documents specified in the work programme for this call.]*

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

Does the participant plan to subcontract certain tasks (please note that core tasks of the project should not be sub-contracted)	Y/N
If yes, please describe and justify the tasks to be subcontracted	
Does the participant envisage that part of its work is performed by linked third parties[7]	Y/N
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 and 12 of the General Model Grant Agreement)	Y/N
If yes, please describe the third party and their contributions	

5. Ethics and Security
5.1 Etichs

- *If you have entered any ethics issues in the ethical issue table in the administrative proposal forms, you must:*
- *submit an ethics self-assessment, which:*
  - *describes how the proposal meets the national legal and ethical requirements of the country or countries where the tasks raising ethical issues are to be carried out;*
  - *explains in detail how you intend to address the issues in the ethical issues table, in particular as regards:*
    - *research objectives (e.g. study of vulnerable populations, dual use, etc.)*
    - *research methodology (e.g. clinical trials, involvement of children and related consent procedures, protection of any data collected, etc.)*
    - *the potential impact of the research (e.g. dual use issues, environmental damage, stigmatisation of particular social groups, political or financial retaliation, benefit-sharing, malevolent use , etc.).*
- *provide the documents that you need under national law (if you already have them), e.g.:*
  - *an ethics committee opinion;*
  - *the document notifying activities raising ethical issues or authorising such activities*

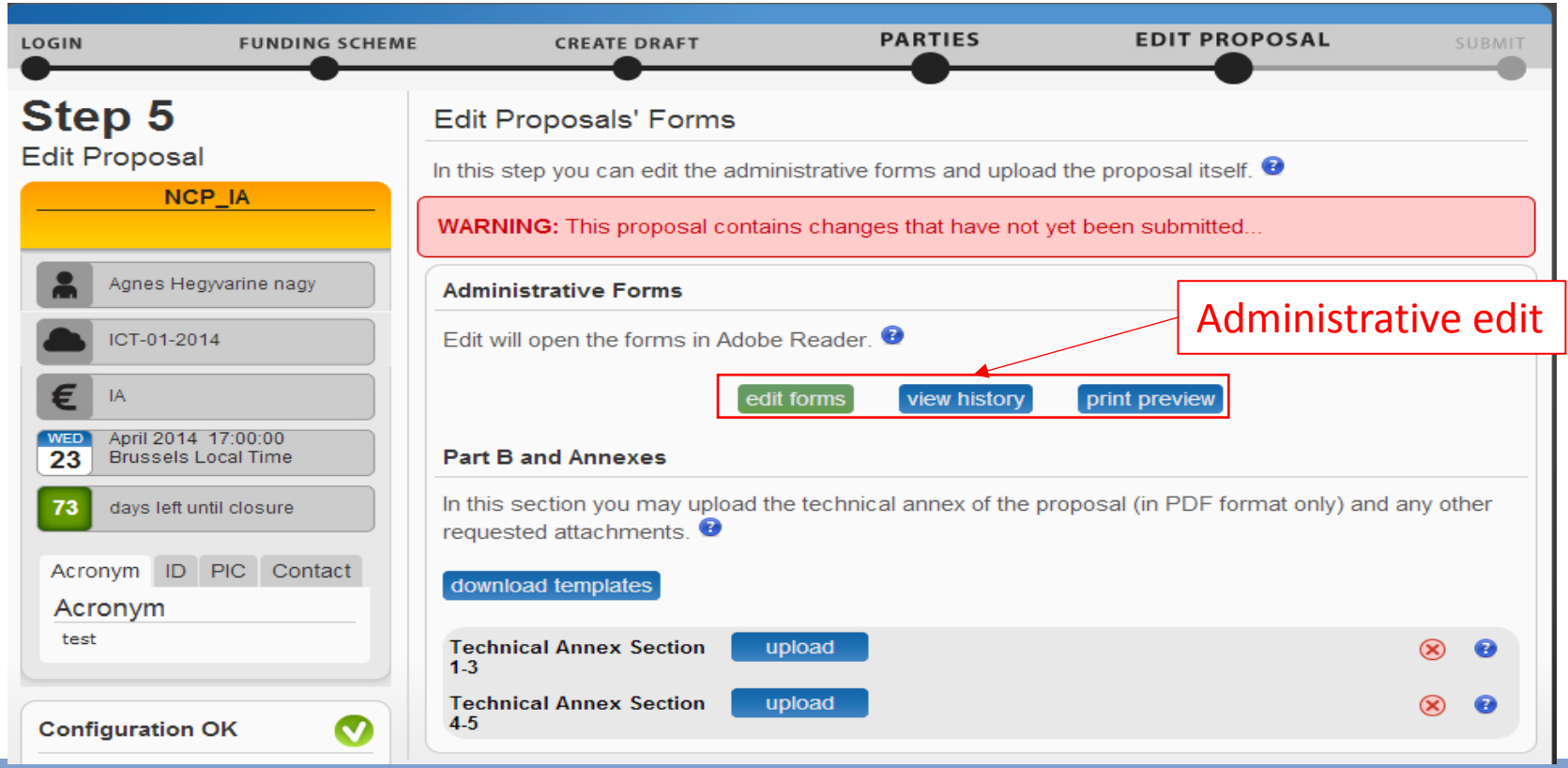
5.2 Security

Please indicate if your project will involve:

- *activities or results raising security issues: (YES/NO)*
- *'EU-classified information' as background or results: (YES/NO)*

Scrivere la parte A

Part A to be completed online


LOGIN
FUNDING SCHEME
CREATE DRAFT
PARTIES
EDIT PROPOSAL
SUBMIT
Step 5
Edit Proposal
NCP_IA
Agnes Hegyvarine nagy
ICT-01-2014
IA
WED 23 April 2014 17:00:00 Brussels Local Time
73 days left until closure
Acronym
ID
PIC
Contact
Acronym
test
Configuration OK
Edit Proposals' Forms
In this step you can edit the administrative forms and upload the proposal itself.
WARNING: This proposal contains changes that have not yet been submitted...
Administrative Forms
Edit will open the forms in Adobe Reader.
edit forms
view history
print preview
Part B and Annexes
In this section you may upload the technical annex of the proposal (in PDF format only) and any other requested attachments.
download templates
Technical Annex Section 1-3
upload
Technical Annex Section 4-5
upload
Administrative edit

Proposal ID *Acronym*

1 - General information

Topic | Type of action

Call identifier | Acronym

Proposal title* *Max 200 characters (with spaces). Must be understandable for non-specialists in your field.*

Duration in months *Estimated duration of the project in full months.*

Fixed keyword 1 | Add

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

Abstract

Short 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.*

Will be used as the short description of the proposal in the evaluation process and in communications with the programme management committees and other interested parties .
- *Do not include any confidential information.*
- *Use plain typed text, avoiding formulae and other special characters.*

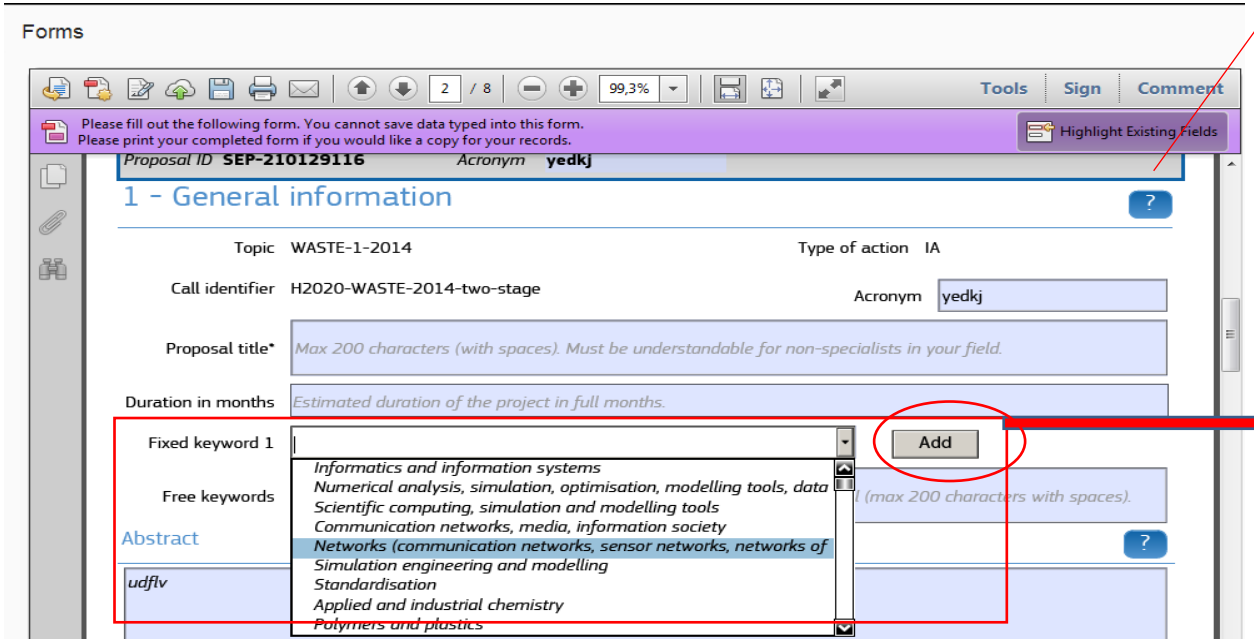
If the proposal is written in a language other than English, please include an English version of this abstract in the "Technical Annex" section.

Remaining characters 2000

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

Please give the proposal reference or contract number.

Read guidance in the form: more help is given behind the question marks or as ghost text within the boxes.



Choose your keywords

Proposal ID	Acronym

Declarations

1) The coordinator declares to have the explicit consent of all applicants on their participation and on the content of this proposal*	☐
2) The information contained in this proposal is correct and complete.	☐
3) This proposal complies with ethical principles (including the highest standards of research integrity — as set out, for instance, in the European Code of Conduct for Research Integrity — and including, in particular, avoiding fabrication, falsification, plagiarism or other research misconduct).	☐

4) The coordinator confirms:

- to have carried out the self-check of the financial capacity of the organisation on https://ec.europa.eu/research/participants/portal4/desktop/en/organisations/lfv.html. Where the result was "weak" or "insufficient", the coordinator confirms being aware of the measures that may be imposed in accordance with the H2020 Grants Manual (Chapter on Financial capacity check); or	☐
- is exempt from the financial capacity check being a public body including international organisations, higher or secondary education establishment or a legal entity, whose viability is guaranteed by a Member State or associated country, as defined in the H2020 Grants Manual (Chapter on Financial capacity check); or	☐
- as sole participant in the proposal is exempt from the financial capacity check	☐

5) The coordinator hereby declares that each applicant has confirmed:

- they are fully eligible in accordance with the criteria set out in the specific call for proposals; and	☐
- they have the financial and operational capacity to carry out the proposed action.	☐
The coordinator is only responsible for the correctness of the information relating to his/her own organisation. Each applicant remains responsible for the correctness of the information related to him and declared above. Where the proposal to be retained for EU funding, the coordinator and each beneficiary applicant will be required to present a formal declaration in this respect.	

According to Article 131 of the Financial Regulation of 25 October 2012 on the financial rules applicable to the general budget of the Union (Official Journal L 298 of 26.10.2012, p.1) and Article 145 of its Rules of Application (Official Journal L 362, 31.12.2012, p.1) applicants found guilty of misrepresentation may be subject to administrative and financial penalties under certain conditions.

Personal data protection

Your reply to the grant application will involve the recording and processing of personal data (such as your name, address and CV), which will be processed pursuant to Regulation (EC) No 45/2001 on the protection of individuals with regard to the processing of personal data by the Community institutions and bodies and on the free movement of such data. Unless indicated otherwise, your replies to the questions in this form and any personal data requested are required to assess your grant application in accordance with the specifications of the call for proposals and will be processed solely for that purpose. Details concerning the processing of your personal data are available on the privacy statement. Applicants may lodge a complaint about the processing of their personal data with the European Data Protection Supervisor at any time.

Your personal data may be registered in the Early Warning System (EWS) only or both in the EWS and Central Exclusion Database (CED) by the Accounting Officer of the Commission, should you be in one of the situations mentioned in:
-the Commission Decision 2008/969 of 16.12.2008 on the Early Warning System (for more information see the Privacy Statement), or
-the Commission Regulation 2008/1302 of 17.12.2008 on the Central Exclusion Database (for more information see the Privacy Statement) .

European Commission - Research - Participants

Proposal Submission Forms

Directorate-General for Research and Innovation

Proposal ID	*Acronym*	*Participant*

2 - Administrative data of participating organisations

PIC ***Legal name***

Short name:

Address of the Organisation

Street

City

Postcode

Country

Webpage

Legal Status of your organisation

Research and Innovation legal statuses

Public body ..... no Legal person .....

Non-profit ..... no

International organisation ..... no

International organisation of European interest ..... no

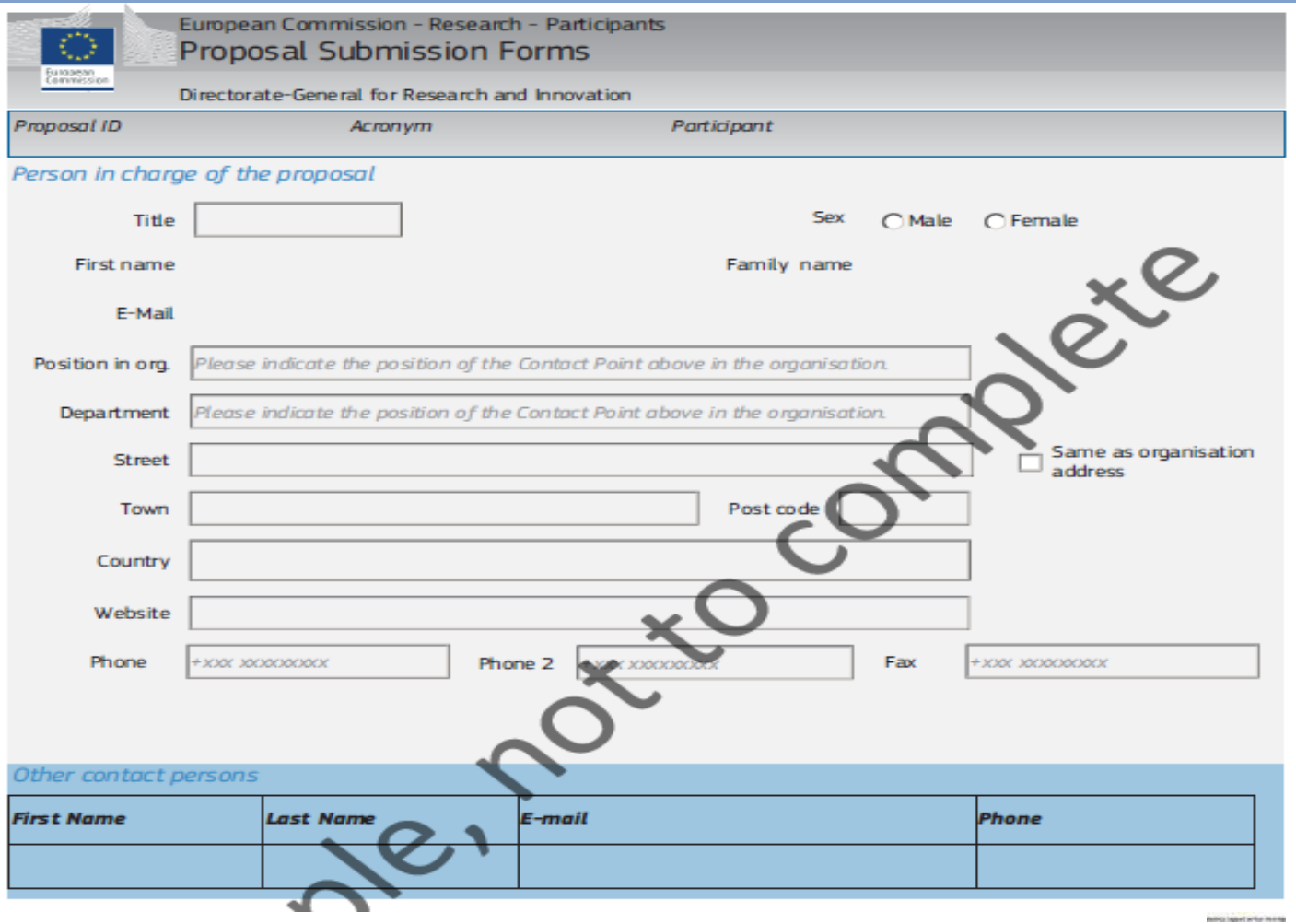
Secondary or Higher education establishment ..... no

Research organisation ..... no

Small and Medium-sized Enterprises (SMEs) ..... no

Academic Sector ..... no

Nace code



European Commission – Research – Participants

Proposal Submission Forms

Directorate-General for Research and Innovation

Proposal ID	*Acronym*	*Participant*

Person in charge of the proposal

Title

Sex ○ Male ○ Female

First name

Family name

E-Mail

Position in org. *Please indicate the position of the Contact Point above in the organisation.*

Department *Please indicate the position of the Contact Point above in the organisation.*

Street

☐ Same as organisation address

Town

Post code

Country

Website

Phone +xxx xxxxxxxxx

Phone 2 +xxx xxxxxxxxx

Fax +xxx xxxxxxxxx

Other contact persons

First Name	***Last Name***	***E-mail***	***Phone***

ple, not to complete

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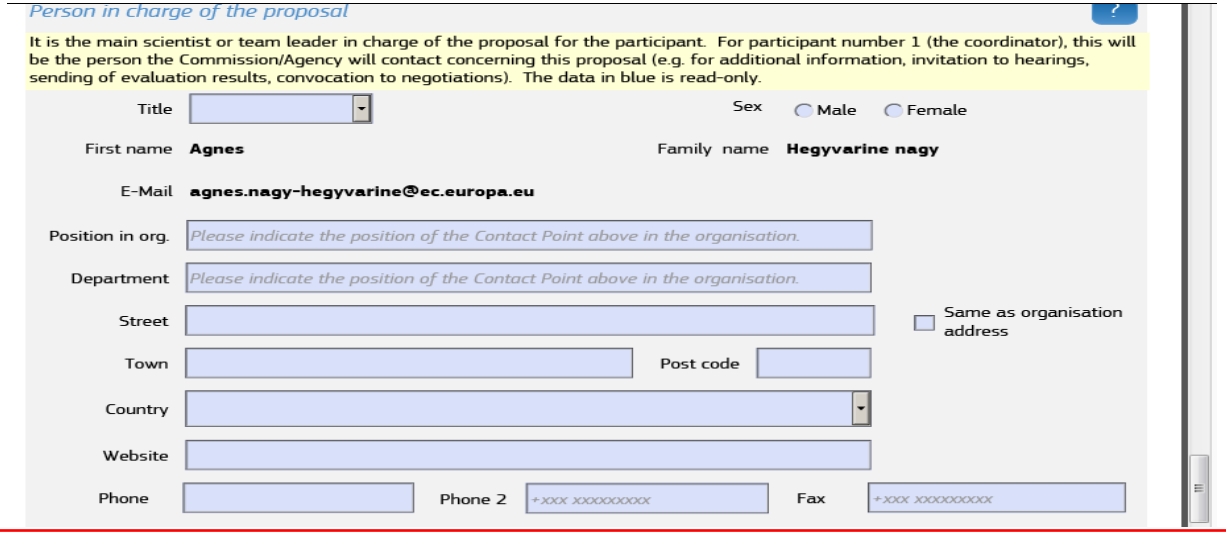
Agenzia per la Promozione della Ricerca Europea

Contact persons



Name, e-mail are read-only in the form! If no main contact was chosen at step 4, the fields are ampty here.

To modify the data the users have to go back to Step 4.

Other contact persons are listed, if there were any given at Step 4.

A3 – Budget

Research and Innovation actions

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/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F+G)	(I) Reimburse-ment rate (%)	(J) Max.EU Contribution / € (=H*I)	(K) Requested EU Contribution/ €
1			0	0	0	0	0	0,00	0	0,00	100	0,00	0,00
	Total		0	0	0	0	0	0,00	0	0,00		0,00	0,00

Innovation actions

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/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F+G) (Beneficiary)	(I) Reimburse-ment rate (%) (Beneficiary)	(J) Max.EU Contribution / € (=H*I) (Beneficiary)	(K) Costs of third parties linked to participant (Third parties)	(L) Max.EU Contribution / € (Third parties)	(M) Total Costs for (beneficiary + third parties) (=H+K)	(N) Max.EU Contribution / € (beneficiary + third parties) (=J+L)	(O) Requested EU Contribution/ €
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

A3 – Budget

European Commission - Research - Participants
Proposal Submission Forms

Example

Proposal ID **652627** *Acronym* **In2Market**

3 - Budget for the proposal

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/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F+G)	(I) Reimburse-ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
KENTRO ANANEOS	EL	116 000	60 000	0	0	0	44 000	0	220 000	100	220 000	220 000
ARKEMA FRANCE S	FR	84 000	18 000	0	0	0	25 500	0	127 500	100	127 500	127 500
ALMA MATER STUD	IT	57 600	14 000	0	0	0	17 900	0	89 500	100	89 500	89 500
TEKNOLOGIAN TUT	FI	140 000	18 000	0	0	0	39 500	0	197 500	100	197 500	197 500

Direct costs

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enterprise europe network

3 - Budget for the proposal

(A) Direct personnel costs/€

Please enter the direct personnel costs for staff working on the project. Use one row for each beneficiary. Include costs of linked third parties, if any, in the beneficiary's budget.
A beneficiary can have one or more types of direct personnel costs. The various possible types of direct personnel costs are indicated below:

- actual personnel costs (salaries and social security contributions, as well as taxes and other costs included in the remuneration if they arise from national law or the employment contract)
- unit personnel costs calculated according to the participant's usual accounting practices (average personnel costs)
- unit personnel costs for SME owners without salary or participants that are natural persons without salary
- additional remuneration (`bonus payments'; for non-profit organisations only and subject to specific eligibility conditions)
- personnel costs for providing access to research infrastructure (if applicable according to the call for proposals)
- costs of personnel seconded against payment (in-kind contributions against payment)
  Example: A researcher, who is employed by a legal entity outside the project, works in the laboratory of the participant.
  The legal entity is reimbursed by the participant, and the participant charges these costs to the project.
- costs of personnel seconded free of charge (in-kind contributions free of charge)
  Example: A professor is working in a public university that participates in the project. His salary is paid directly by the ministry, not by the university.
  The university charges the salary costs to the project without reimbursing the ministry.

Indirect costs (F) or special unit costs (G) must not be included here. For details on the types of 'direct personnel costs', their calculation, and the conditions for their eligibility please refer to Article 6.1 (general) and Article 6.2.A (specific) of the Annotated Model Grant Agreement.

There are additional conditions for in-kind contributions of personnel. For details see Article 11 (in-kind contributions against payment) and Articles 6.4 and 12 (in-kind contributions free of charge) of the Annotated Model Grant Agreement. In-kind contributions and the legal entities making them must be described in the proposal (section 4.2 of the technical annex).

This tool tip is designed to help you fill in the budget table in the proposal submission forms. It does not replace the relevant legal basis and documentation (Financial Regulation, Rules for Participation, Model Grant Agreement) which must be consulted in case of doubt.

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/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F+G)	(I) Reimburse-ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
		?	?	?	?	?	?	?	?	?	?	?

3 - Budget for the proposal

(B) Other direct costs/€

Please enter other direct costs necessary to carry out the project. Use one row for each beneficiary. Include costs of linked third parties, if any, in the beneficiary's budget.
The various possible types of other direct costs are indicated below:

- travel costs and related subsistence allowances
- costs of equipment, infrastructure, or other assets (depreciation costs, costs of renting or leasing, in-kind contributions against payment or free of charge; full purchase costs are possible only if this option is specifically included in the work programme/call for proposals to which you respond)
- costs of other goods and services (e.g., direct costs for consumables and supplies, publications, conferences, patents, certificates on financial statements, certificates on methodology, translations, in-kind contributions against payment or free of charge)
- capitalised and operating costs of large research infrastructures (only for entities that comply with the criteria, see Article 6.2.D.4 of the Annotated Model Grant Agreement)

Deductible VAT (ineligible cost), indirect costs (F), or special unit costs (G) must not be included here. For details on the types of 'other direct costs', their calculation, and the conditions for their eligibility please refer to Article 6.1 (general) and Article 6.2.D (specific) of the Annotated Model Grant Agreement.

There are additional conditions for in-kind contributions of equipment, infrastructure, other assets, goods or other services. For details see Article 11 (in-kind contributions against payment) and Articles 6.4 and 12 (in-kind contributions free of charge) of the Annotated Model Grant Agreement. In-kind contributions and the legal entities making them must be described in the proposal (section 4.2 of the technical annex).

This tool tip is designed to help you fill in the budget table in the proposal submission forms. It does not replace the relevant legal basis and documentation (Financial Regulation, Rules for Participation, Model Grant Agreement) which must be consulted in case of doubt.

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/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F+G)	(I) Reimburse-ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal

(C) Direct costs of subcontracting/€

Please enter the direct costs of subcontracting. Use one row for each beneficiary. Include costs of linked third parties, if any, in the beneficiary's budget.

Subcontracting can be used to implement a limited part of the project. Each subcontract and the tasks it covers must be described in the proposal (section 4.2 of the technical annex). Subcontracting costs include the actual price and taxes (including non-deductible VAT) paid by the beneficiary. No indirect costs are accepted for subcontracting, and the 25% flat rate of indirect costs is not applied.

For details on 'direct costs of subcontracting' and the conditions for their eligibility please refer to Article 6.1 (general), Article 6.2.B (specific), and Article 13 of the Annotated Model Grant Agreement.

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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/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F +G)	(I) Reimburse-ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal

(D) Direct costs of providing financial support to third parties/€

Please enter the direct costs of providing financial support to third parties. Use one row for each beneficiary.

Use this cost category only if the possibility is explicitly mentioned in the work programme/call for proposals to which you respond.
Example: As part of your proposal, you plan a prize or a competitive call for proposals for the development of a specific electronic device. The prize or call is open to legal entities outside the project. You select one or more successful applicants and award the prize or reimburse them to cover their development costs for the device.

This cost category (D) is limited to the actual amounts paid by the beneficiary to third parties. No indirect costs are accepted for financial support to third parties, and the 25% flat rate of indirect costs is not applied.

For details on the possibility to providing financial support to third parties and the eligibility of these costs please refer to Article 6.1 (general), Article 6.2.C (specific), and Article 15 of the Annotated Model Grant Agreement.

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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/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F+G)	(I) Reimburse-ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal

(E) Costs of inkind contributions not used on the beneficiary's premises/€

Please enter the costs for in-kind contributions that are made by third parties against payment or free of charge and that are not used on the beneficiary's premises. Use one row for each beneficiary. Include costs of linked third parties, if any, in the beneficiary's budget.

- costs for personnel that is made available (seconded) against payment or free of charge and working outside the beneficiary's premises
- costs for equipment, infrastructure, or other assets that are made available against payment or free of charge and used outside the beneficiary's premises
- costs of other goods and services made available against payment or free of charge and used outside the beneficiary's premises

These costs (E) are already included in the 'direct personnel costs' (A) and 'other direct costs' (B). They need to be declared specifically in this column so that they can be subtracted from the sum of direct personnel costs (A) and direct other costs (B) before the indirect costs (F) are calculated.

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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/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F+G)	(I) Reimburse-ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal

(F) Indirect costs/€ (=0.25 (A+B-E))

Indirect costs are covered by a 25% flat rate of the participant's 'direct personnel costs' (A) and 'direct other costs' (B) minus 'costs of in-kind contributions not used on the beneficiary's premises' (E).

No indirect costs are accepted for
– subcontracting costs (C)
– costs of providing financial support to third parties (D)
– unit or lump-sum costs which already include indirect costs (G).

For details on the types of 'indirect costs', their calculation, and the conditions for their eligibility please refer to Article 6.1 (general) and Article 6.2.E (specific) of the Annotated Model Grant Agreement.

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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/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F+G)	(I) Reimburse-ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal

(G) Special unit costs covering direct & indirect costs/€

This cost category is used for special unit costs that are authorised by a Commission decision. Use one row for each beneficiary. Include costs of linked third parties, if any, in the beneficiary's budget.

Use this cost category only if the possibility is explicitly mentioned in the work programme/call for proposals to which you respond.

The following types of costs may be included here:
- costs of additional energy efficiency measures (Decision C(2013) 819626)
This category of unit costs will only apply for Smart Cities and Communities calls. For example, call SCC-01-2014 in the H2020 Work Programme 2014-2015.
- costs for providing trans-national access to research infrastructures (Decision C(2013) 819927)
This category of unit costs will apply only to Research Infrastructure calls. For example, calls INFRAIA-1-2014-2015, INFRADEV-3-2015 and INFRADEV-4-2014-2015 in the H2020 Work Programme 2014-2015.
- costs of clinical studies (DRAFT Decision (2014))

Costs declared as 'special unit costs' (G) may not be declared under any other budget category and are excluded from the calculation of indirect costs. For details see Article 5.2.F and 6.2.F of the Annotated Model Grant Agreement. For actions involving trans-national access to research infrastructure for scientific communities see also Article 16 of the Annotated Model Grant Agreement.

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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/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F +G)	(I) Reimburse-ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal

(H) Total estimated eligible costs/€ (=A+B+C+D+F+G)

Calculated automatically based on the amounts you entered.

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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/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F+G)	(I) Reimburse-ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal

(I) Reimbursement rate (%)

The reimbursement rate is defined in the work programme and cannot be modified.
For research and innovation actions, the reimbursement rate is up to 100%.
For innovation actions, the reimbursement rate is up to 70%; however non-profit organisations may receive up to 100%.

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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/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F+G)	(I) Reimburse-ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal

(J) Max. grant/€ (=H * I)

Calculated automatically based on the amounts you entered.

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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/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F+G)	(I) Reimburse-ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

European Commission – Research – Participants

Proposal Submission Forms

Directorate-General for Research and Innovation

Proposal ID *Acronym*

4 – Ethics issues table

1. HUMAN EMBRYOS/FOETUSES i		Page
Does your research involve Human Embryonic Stem Cells (hESCs)?	○ Yes ◉ No	
Does your research involve the use of human embryos?	○ Yes ◉ No	
Does your research involve the use of human foetal tissues / cells?	○ Yes ◉ No	
2. HUMANS		Page
Does your research involve human participants?	○ Yes ◉ No	
Does your research involve physical interventions on the study participants?	○ Yes ◉ No	
Does it involve invasive techniques?	○ Yes ◉ No	
3. HUMAN CELLS / TISSUES		Page
Does your research involve human cells or tissues? If your research involves human embryos/foetuses, please also complete the section "Human Embryos/Foetuses" [Box 1].	○ Yes ◉ No	
4. PROTECTION OF PERSONAL DATA ii		Page
Does your research involve personal data collection and/or processing?	○ Yes ◉ No	
Does your research involve further processing of previously collected personal data (secondary use)?	○ Yes ◉ No	
5. ANIMALS iii		Page
Does your research involve animals?	○ Yes ◉ No	

Proposal ID *Acronym*

6. NON-EU COUNTRIES		Page
Does your research involve non-EU countries?	○ Yes ◉ No	
Do you plan to use local resources (e.g. animal and/or human tissue samples, genetic material, live animals, human remains, materials of historical value, endangered fauna or flora samples, etc.)?	○ Yes ◉ No	
Do you plan to import any material - including personal data - from non-EU countries into the EU? If you consider importing data, please also complete the section "Protection of Personal Data" [Box 4].	○ Yes ◉ No	
Do you plan to export any material - including personal data -from the EU to non-EU countries? If you consider exporting data, please also complete the section "Protection of Personal Data" [Box 4].	○ Yes ◉ No	
If your research involves low and/or lower middle income countries, are benefits-sharing measures foreseen?	○ Yes ◉ No	
Could the situation in the country put the individuals taking part in the research at risk?	○ Yes ◉ No	
7. ENVIRONMENT PROTECTION vi Directive 2001/18/EC - vii Directive 2009/41/EC - viii Regulation EC No 1946/2003 - ix Directive 2008/56/EC x Council Directive 92/43/EEC - xi Council Directive 79/409/EEC - xii Council Regulation EC No 338/97		Page
Does your research involve the use of elements that may cause harm to the environment, to animals or plants?	○ Yes ◉ No	
Does your research deal with endangered fauna and/or flora and/or protected areas?	○ Yes ◉ No	
Does your research involve the use of elements that may cause harm to humans, including research staff?	○ Yes ◉ No	
8. DUAL USE xiii		Page
Does your research have the potential for military applications?	○ Yes ◉ No	
9. MISUSE		Page
Does your research have the potential for malevolent/criminal/terrorist abuse?	○ Yes ◉ No	
10. OTHER ETHICS ISSUES		Page
Are there any other ethics issues that should be taken into consideration? Please specify	○ Yes ◉ No	