How to write a successful proposal

The Template

STARTING

Your **IDEA** must be innovative

Patent databases

ex. http://it.espacenet.com

IPR helpdesk

www.ipr-helpdesk.org

Previously funded projects FP7

http://cordis.europa.eu/fp7/projects_en.html

Acronym creator

http://acronymcreator.net/ace.py

Writing the proposal

PART A ***ADMINISTRATIVE INFORMATION***

- General information (coordinator)
- Participant information, (1 for each partner)
- Budget (completed by the coordinator)

PART B ***TECHNICAL INFORMATION*** in PDF format

- The sections follow the **evaluation criteria**

A1 – General Information

Max. 200 characters with spaces

Max. 200 characters with spaces

Max. 2,000 characters with spaces

European Commission - Research - Participants
Proposal Submission Forms

Example

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

1 - General information

Topic ISIB-08b-2014 Type of action CSA

Call identifier H2020-ISIB-2014-1 Acronym In2Market

Proposal title* Bridging the gap between innovation efforts and bioeconomy market

Note that for technical reasons, the following characters are not accepted in the Proposal Title and will be removed: < > " &

Duration in months *36*

Free keywords *Biomass resources, conversion platforms, value added products, market analysis, sustainability, socioeconomic implications, public awareness, comprehensive bioeconomy, biorefinery concept*

Abstract

In2Market aims to bridge the research and innovation efforts, encompassing the biomass resources production and their conversion into value added products, so that the innovation efforts to reach the market faster. The innovation in the field of biomass resources (crops, residues and waste recycle streams) will be exploited, analysed and qualified (WP1) based on previous and on-going research projects. The innovation in the conversion platforms (sugar, oils & fats, lignin, proteins, secondary metabolites, fibers and energy) for biomass conversion will be presented and evaluated following a cascade biorefinery approach with zero waste (WP2). The existing and emerging markets for value added products (pharmaceuticals, nutraceuticals, cosmetics, food & feed, bulk and fine chemicals, paper & pulp, biocomposites, biofuels and energy) will be recorded and analysed taking into account the current research and innovation efforts and the existing barriers for implementation of biobased products (WP3). The sustainability implications of biobased products from crop production to commercialisation, including an environmental, socio economic aspects and governance review, will be benchmarked and evaluated (WP4). The knowledge transfer of best practices in sustainable process and technologies will be fostered (training events, matchmaking events, open & demo days, webinars, etc.) in order the flow from discovery to further research and innovation to be facilitated (WP5). A roadmap, entitled "Bridging research and innovation efforts for a sustainable bioeconomy", will be generated. It will be a guide on how the innovation and discoveries will reach the bioeconomy faster (WP6), and it will be useful to producers, scientists, policy-makers and customers. In2Market dissemination and communication plan (WP7) includes social media, presentations, promotional material, scientific articles, project website as well as a Brokerage event (WP7).

Remaining characters 46

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)? ○ Yes ◉ No

European Commission - Research - Participants
Proposal Submission Forms

Example

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

2 - Administrative data of participating organisations

PIC
999646014

Short name

Address of t

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Legal Status

Research an
Public body ...
Non-profit .....
International o
International o
Secondary or H
Research organisation .....
Small and Medium-sized Enterprises (S

Nace code 721 -

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Proposal ID **652627**

Department(s) carryi

Department 1

Department name Bio
Street 19t
Town Pik
Postcode 190
Country Gre

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European Commission - Research - Participants
Proposal Submission Forms

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

Person in charge of the proposal

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to Step 4 of the submission wizard and save the changes.

Title Dr. Sex ○ Male ◉ Female

First name **Efi** Last name **Alexopoulou**

E-Mail **ealex@cres.gr**

Position in org. Responsible for Non-Food Crops

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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

Writing the proposal: part B

Cover page:
Title of proposal
List of participants

1: Excellence

1.1 Objectives

1.2 Relation to work programme

1.3 Concept and approach

1.4 Ambition

2. Impact

2.1 Expected impacts

2.2 Misure to maximase impact

a) Dissemination and exploitation of results
b) Communication activities

3. Implementation

3.1 Work plan – work packages, deliverables and milestones

3.2 Management structure and procedures

3.3 Consortium as a whole

3.4 Resources to be committed

4. Individual participants

1. Excellence

1.1 Objectives

Describe the **specific objectives** for the project[1], 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).

The specific scientific and technical objectives and indicators of OPTIBIOCAT are:

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

Example

- **Optimized biocatalysts based on FAEs and GEs** for production of the aforementioned biologically active compounds in the rigors of the industrial environment, exhibiting: objective
  - ✓ 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:** objective
  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** results

- **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

The proposed research aims to look forward and **anticipate trends** in CH and digital technologies. Its main expected outcomes are a range of complementary reports and studies in the shape of:

- **Foresight studies** to support development of strategic agendas and joint programming in Europe;
- **Case studies** on key aspects of digital curation, preservation, creation, co-creation and dissemination of CH to give concrete illustrations of the research results;
- Quantitative and qualitative research-based evidence to **support policy-makers** in reviewing and developing new policy for enhancing CH through digital technologies;
- **Recommendations, advice and resources** for **agencies and organisations charged** with CH management, creation, dissemination and promotion; **industry, commercial and private bodies** which work or seek to work within the field of CH.

Example

results

These documents will be made available as widely as possible by **dissemination and communication** campaigns which will aim to establish a "dynamic communication strategy to improve the communications interface between policymaking and research"[3]. Key documents will be translated into the languages of the participating partners (English, French, German, Italian, Spanish, Dutch, Turkish and Danish). The project will produce and deliver a **publication** entitled *'Cultural Heritage and Digital Technologies: new approaches to value, promotion and benefits in a changing Europe'* ; this will explore the context of change and the role of CH in European development and will have a specific address to policy makers, programme owners and CH managers. There will be **two international conferences** in Rome and Coventry and **three thematic workshops** in Barcelona, Ankara and Berlin.

The **Network of Common Interest** to be established by the partners and enlarged throughout the project lifetime will include the Associate Partners who will have signed the cooperation agreement with RICHES. This network will be the first arena for the exploitation of the project results; it will support the continuation of the research work; and it will be an important legacy of the RICHES project.

The BioWalk4Biofuels 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:

objective

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)

Results. Implications of these results would be objectives.

Example

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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.

objective

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;

objective

1. Excellence

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.

Scientific and Technological Objectives

The objectives of RICHES 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 RICHES proposal**
Context of the research indicated in the EC Work Programme:	The research proposed by RICHES 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

objectives, well done, clear links to the "why" of the project.

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	• Design and development of all the system's components and development and demonstration of an integrated manufacturing line.

Example

They are results rather than objectives; However, good the structuring and the detailing.

VIP Products Relation with the KBBE.2013.3.1.01 Plant High Value Products – from discovery to final product

Topics of the KBBE.2013.3.01	How the topics addressed in VIP Products
Their efficient utilization of natural bioactive molecules requires an integrated and comprehensive effort through identification of suitable bioactive compounds, then to optimised the cultivation strategies for selected plant species or ecotypes, metabolic engineering of the selected biochemical pathways to improving the productivity and finally to product development and commercialisation.	VIP Products will utilize natural bioactive molecules from five dual crops (flax, hemp, kenaf, nettle and roselle) with multiuse. First of all the suitable bioactive compounds will be identified (WP1). Varieties, accessions and wild genotypes from Europe and outside Europe (China, South Africa, Argentina and Mexico) will be screened (WP3) then cultural strategies will be studied (WP4). Metabolomic engineering of selected biochemical pathways will be carried out (WP2) in order to improve the product development (WP6, WP7, WP8) and commercialization (WP9).
The projects will engage in a full chain of research and innovation needed to bring to market new or improved products aiming at innovative methodologies in order to tackle the existing bottlenecks and addressing the needs of the bio-industry.	VIP Products will produce valuable industrial plant products in a full chain of research and innovation needed (from the agronomy research (WP3, WP4), the metabolomic engineering for improving them (WP2) and finally to produce VIP Products with bioactive properties (WP6) and added value (WP7) that addressing the needs of the bio-industry (WP9).
This includes improvements in technical aspects of the metabolic engineering pipeline (e.g. metabolomics, new gene mining concepts, isolation of biomolecules, their purification and sustainable production either in planta, bioreactors, or in alternative biological systems).	VIP Products will improve the technical aspects of the metabolomic engineering for selected biochemical pathways (WP2). A unique genes in metabolomic pathways will be identified that determine the content and compositions of different bioactive compounds in the selected crops with emphasis on secondary metabolite pathways and identify genes to use for the crops breeding and for vast production of active compounds in cell culture and *E.coli* (WP2).
The targeted plants can originate from a broad range of European and/or non-European species (e.g. medicinal or aromatic), either cultivated (e.g. industrial crops) or collected from the wild.	In VIP Products the targeted plants (WP3, WP4) are five dual (cultivated for both stems and seeds) crops (flax, hemp, kenaf, nettle and roselle) with numerous uses. Two of them are underutilised (nettle and roselle). Several varieties, accessions and wild genotypes will be compared. The selected crops have medicinal uses.

Example

Good the fact of mentioning WPs

1. Excellence

1.3 Concept and approach

- Describe and explain the **overall concept underpinning the project**. Describe the main **ideas**, **models** or **assumptions** involved. Identify any **trans-disciplinary** considerations;
- 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;
- Describe and explain the **overall approach and 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

Example

entific and/or technical quality, relevant to the topics addressed by the call

1.1 Concept and objectives

Concept

"The European cosmetics industry is a world leader and dominant cosmetics exporter, a highly innovative sector and a significant employer in Europe….Today's cosmetic market is driven by innovation including new colour pallets, treatments targeted to specific skin types and unique formulas concentrating on different needs. Most cosmetics products have a lifespan of less than five years and manufacturers reformulate 25% of their products every year. They need to improve products constantly in order to stay ahead in a highly competitive market where more choice and ever greater efficacy are expected by the consumer" (http://ec.europa.eu/consumers/sectors/cosmetics/index_en.htm).

As established by the *EU Strategy for Key Enabling Technologies* (EC COM(2012) *341*), Key Enabling Technologies (KETs) are a key source of innovation. They provide indispensable **technology bricks that enable a wide range of product applications**, including those required for developing low carbon energy technologies, improving energy and resource efficiency, boosting the fight against climate change or allowing for healthy ageing. **Industrial biotechnology** has been recognized as the driving KET for the bioeconomy. In fact, significant growth of the European bioeconomy is expected to be arisen from **industrial biotechnology** due to its capacity to lead to new bio-based industries, transform existing ones, and open new markets for bio-based products (EC COM(2012) 60: *"Innovating for Sustainable Growth: A Bioeconomy for Europe"*). It is estimated that every euro invested into research and innovation in the area of industrial biotechnology will result in a tenfold return. The enzymes represent one of the market segments chosen by EC in the *Lead Market Initiative on Bio-based products* (EC COM(2007) 860).

OPTIBIOCAT perfectly fits to these needs, since it will replace chemical processes currently adopted for production of ingredients for the cosmetic industry with bioconversions characterized by reduced environmental impact. The **OPTIBIOCAT** bioconversions represent low carbon energy technologies with improved energy and resource efficiency. The biocatalysts developed by **OPTIBIOCAT** will represent competitive solutions supporting the *Lead Market Initiative on Bio-based products*. **OPTIBIOCAT** will contribute to solution of the environmental concerns of the industrial activities moving them towards sustainable biotechnologies thus contrasting their environmental impact and aiding the growth of the European bioeconomy.

The OPTIBIOCAT biocatalysts **are based on the enzymes feruloyl esterases (FAEs) and glucuronoyl esterases (GEs).**

Concept and objectives

Quite a negative starting…!

Example

CONCEPT

The main obstacles towards solar energy massive use today are investment cost and large land utilization required, as direct solar radiation reaching the Mediterranean area is around 1900-2000 kWh/m²yr. In addition, as other renewable sources, solar power is intermittent and hardly predictable, so that actual user's electric power requirement satisfaction is possible only by using large energy storage systems.

Solar thermal power systems great advantage with respect to photovoltaic generation is that energy storage is more economically viable, as storing enthalpy is by far more practicable than storing electricity, especially when large-scale storage is required. This means that electricity production can be scheduled according to customer or network electricity requirements, quite independently of actual sun radiation.

Hence, in a future energy scenario, photovoltaic plants will find their place mainly at customers sites (as they are currently doing), while thermal applications will be suitable for large scale energy generation plants, able to feed electricity networks in a stable and reliable way. Currently, the leading technology for solar thermal energy generation is the parabolic trough.

All the commercial parabolic trough solar systems currently in operation use mineral or synthetic oil as heat transfer fluid, thus operating with temperature of about 380 °C and generating steam not at the best conditions as regards the thermodynamic conditions (temperature and pressure) to fit commercial steam turbines operating parameters. This limitation leads to higher installation costs for solar plants because of the required "customized" design of power block. Moreover, the thermodynamic efficiency limitation consequent to the temperature limit determines an actual efficiency of about 37%. In addition, the use of large quantities of oil envisages high potential environmental risks in case of piping breakages.

The only trough-collector based solar plant adopting the direct molten salt concept is the Archimede Project (Priolo Gargallo, SR, Italy), a demonstrative plant of 12 MWth (5 MWe) integrated in an existing combined cycle power plant developed by ENEL.

The ARCHETYPE SW550 project aims at implementing the positive experience of Archimede Project into a stand alone commercial plant having a 25 MWe size connected to the grid. Furthermore, ARCHETYPE SW550 will be the World's first Concentrated Power Plant based on parabolic trough technology integrating the direct molten salt solar field, a twin tank storage system with a dedicated power block and a fresh water production system based on reverse osmosis technology.

The choice of the Reverse Osmosis system has been made in order to achieve the lower production cost and at the same time to get the maximum recovery from thermal energy losses of the thermal cycle. It is obvious that the Concentrated Solar Power system do not have fired boiler in normal operation and do not have any stack with huge flue gas flow at temperatures exceeding 100°C: as a consequence the

Example

Concept

The Concentrator Photovoltaic Technology (CPV) is considered a promising alternative option to PV flat solutions to overcome the present day barriers in terms of material shortage and costs, especially if it is declined to high concentration factor values HCPV (High Concentration Photovoltaic). The technology can assure rapid manufacturing capacity scale-up. In fact a single wafer of HCPV cells can supply up to 1.0÷1.5 kWp or more. As a way of fact existing manufacturing capacity of semiconductor companies is more than sufficient to supply projected 100 GWp/year of solar cell production without extra efforts in dramatically reducing thickness of the materials or in searching disruptive technical solution in order to meet the increasing request of semiconductor. Last but not least the trend in modern mass-product manufacturing is to make a product as recyclable as possible. The main components of PV Concentrator systems are composed mainly of easily recyclable materials: steel, aluminium and plastic that can be easily divided each from the other and it uses less toxic material then thin film technologies such as cadmium, etc.

The CPV technology is also the only option to have PV system's efficiency greater than 20%. This increases the power density (producible KWh/m^2) and it reduces land utilization as well as area related costs. PV Concentration contributes to realising the Implementation Plan (2010-2012) and the Technology Roadmap (2010-2020) of the Solar Europe Industrial Initiative. On other hand the technology will acquire wider market share when it will demonstrate increased reliability and will achieve manufacturing economies of scale, these being actually the main barriers for concentration-based photovoltaic (CPV) systems.

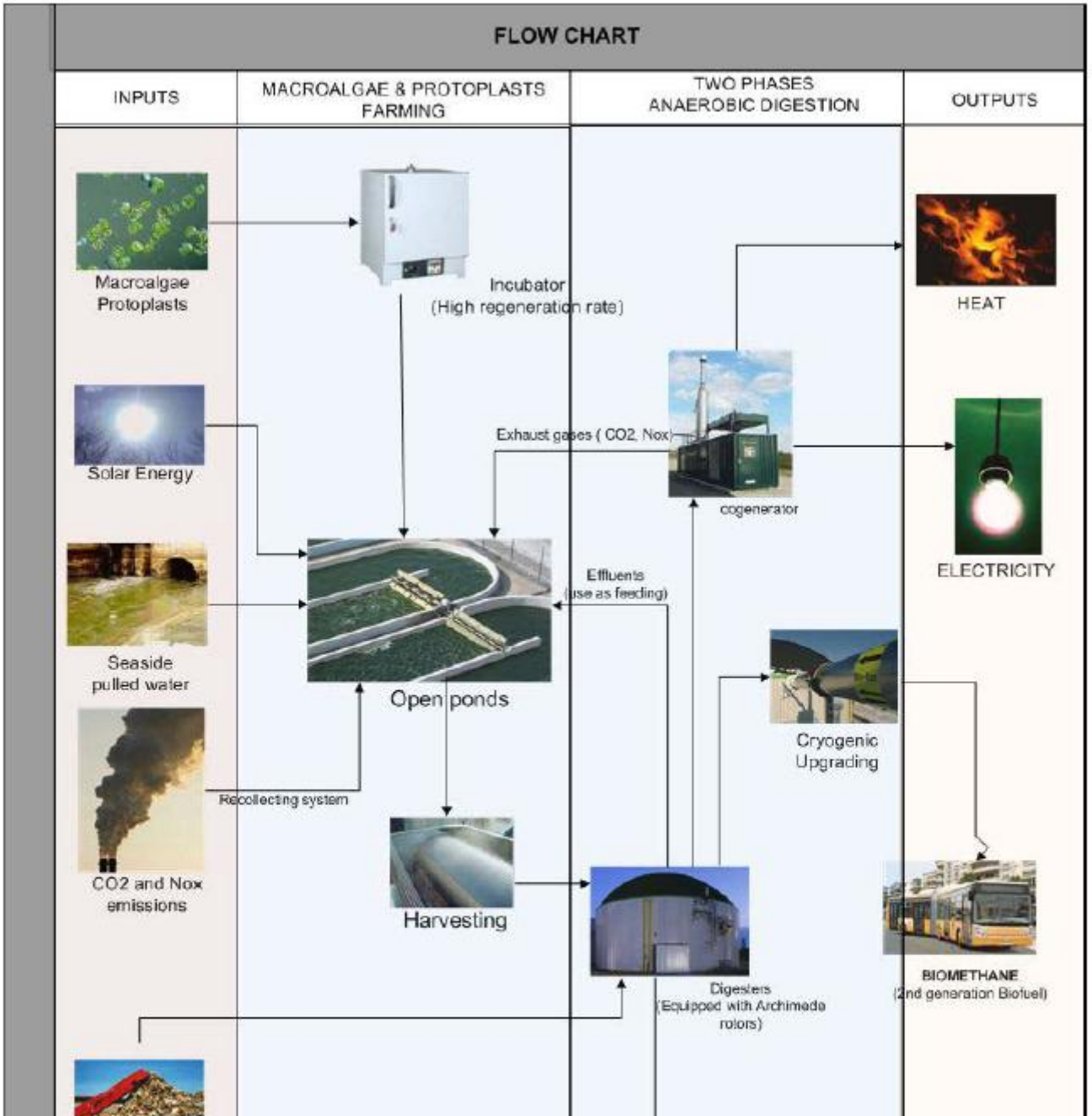
In order to enable large-volume production of the CPV systems and reduce their costs, it is necessary to improve the level of integration of the manufacturing of different system components by way of highly automated, high-yield, high-throughput manufacturing processes of the CPV systems components, from the preparation of the solar cells and the optics to the module and system assembly. Extra effort should be set to the electronics for power control and in-line monitoring.

The focus of the project is the design, the development, the realization and the testing of complete reliable and cost-effective high concentration photovoltaic generator to overcome the barriers delaying the massive introduction of CPV systems.

ECOSOLE regards the realization and demonstration of a high concentration photovoltaic generator made of:

- A set of very simple but high efficiency PV (PhotoVoltaic) modules by using high reflective mirrors and III-V solar cells;
- An improved module housing can be easily realized at low cost and with very high throughput.

ure 1 - Shows the proposed process scheme flows for the production of biofuels, using waste as feedstock and macroalgae as our catalyser



Example

The following Table summarizes the different segments of Project Concept and respective WP Objectives and **Strategic Methodology to gain the main Results turning out as** Deliverables.

Respective Main Work Package Objectives	Strategic Methodology	Main Results/ Deliverables
• Concept 1: To utilize genetic resources for the development of berry varieties with first-rate fruit quality and plant performance		
•Characterisation of berry germplasm •Development of molecular tools for support and enhancement of breeding of new varieties •Validation of the role of key genes in strawberry traits	•Data mining of existing characterisation data and assessment of pre-commercial material •Deployment strategies with breeders and associated SMEs •Studies on flowering and fruit quality genes	•Databases of characterized germplasm •Genome mapping by QTLs for fruit quality traits • Marker-assisted breeding strategies •Validated genes controlling strawberry nutritional quality and flowering
• Concept 2: To develop competitive production strategies of berries for improved availability, for changing climatic conditions, and for low-input growing systems minimizing negative impacts on the environment		
• Cultivation techniques for season extension • Ensuring profitable berry production in changing climate • Reducing environmental impact • Improved biocontrol and integrated pest management	• Studies on plant nursery technology and impact of climate • Technology to modify conditions for season extension and against temperature stress • Studies in disease and pest management by biocontrol and low-input technologies	•Methods to modify plant architecture •Method of berry season extension trans Europe •Methods to avoid North frost and South hot summer temperatures •Methods for minimized pesticide use and improved resource use efficiency
• Concept 3: To establish fruit quality specifically for the fresh market, by including fruit taste, nutraceutical (bioactive), nutritional quality and post-harvest stability		
•Fruit Organolepsis •Pre and Post-harvest treatments for the maintenance of fruit quality •Validating fresh berry value for consumer health	•Assays in fruit external, nutritional and nutraceutical quality, sensorial analyses and consumer tests •Pre-harvest and Post-harvest treatments •Digestion assays on polyphenols, bioavailability and bioactivity studies	•Identification of strategies to maximise fresh fruit quality via novel approaches •Evidence for the human health benefits of fresh fruit in validated model systems
• Concept 4: To increase economic competitiveness of berry production and develop a science-		

Complicated, both visually and conceptually. Moreover, concepts are not enough detailed in themselves

Example

1. Excellence

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 potential** 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.

Progress beyond the state of the art

OPTIBIOCAT 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 OPTIBIOCAT will be produced at high levels using improved fermentations to supply sufficient enzyme quantities to perform conversion tests. OPTIBIOCAT 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 OPTIBIOCAT biocatalysts, bioconversions, products and the overall biocatalytic process are summarized in the following table.

Present situation	OPTIBIOCAT progress
OPTIBIOCAT 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

Good Practice

Advance brought about by the project

ECOSOLE is 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.

Example

1.2.2.1 PV cell

The first part of the HCPV system is the PV cell. **The partner QUANTASOL 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

2. Impact

2.1 Expected impacts

- Describe how your project will contribute to:
  - the expected **impacts set out in the work programme**, under the relevant topic;
  - **improving innovation capacity and the integration of new knowledge** (strengthening the competitiveness and growth of companies by developing **innovations meeting the needs of European and global markets**; and, where relevant, by delivering such innovations to the markets;
  - any other **environmental and socially important impacts** (if not already covered above)
- Describe any **barriers/obstacles**, and any **framework conditions** (such as regulation and standards), 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 listed in the work programme

From knowledge to action

The main means of ensuring that the RICHES project's outputs achieve maximum impact will be for the project to generate **wide general knowledge** of the reports, recommendations, guidelines, the project's book, case studies, best practices and all the other resources to be developed by the partners.

The process of achieving impact will begin with every element in the value chain of CH practice – from creator to institution to user - being made aware of the project's achievements and using these as springboards for action.

Example

RICHES	Actors	Actions
PRO-ACTIVE DISSEMINATION OF INFORMATION, ON MANY CHANNELS: - Online access to documents and demonstrations - Mailing lists and newsletters - Communication in general media - Focused communication on sectoral media - Insertions and links on portals and web-magazines - Distribution of printed material - Direct communication, through seminars, workshops and conferences	European, national and regional policy makers and programme owners	should take into account the priorities identified by RICHES in shaping policy and calls for implementation
	The network of all the cultural institutions and public administrations responsible for the implementation of policies and programmes	should adopt the guidelines and recommendations of RICHES in the planning of their initiatives
	The service providers (schools, colleges, enterprises, research centres, association and civil society) appointed by cultural institutions and public administrations to implement practical actions	should use the resources (best practices and lessons learnt) made available by RICHES in the development of services, teaching curricula and continuing professional development
	The end-users of CH (students, young people, general audiences, cultural tourists, researchers)	should be aware of other successful initiatives and demand that CH institutions deliver the priority services identified by RICHES and develop other innovations

Dissemination-based impact; assumption that actions (and impact) is a consequence of knowledge, which is not always the case.
But good the presentation.

Research and Impact metrics

Research dimensions and challenges	RICHES project response	Impact metrics
Significant advances in the understanding of how the economic and societal potential of Europe's cultural heritage may be realised.	With the appropriate academic, professional and technical skills for this research project, the consortium has identified the steps required to ensure maximum impact for RICHES. The range of abilities to undertake research and to identify and propose new models for the (re)definition of CH and CH practice, and the collection, curation, preservation, promotion and exploitation of CH, were key factors in selecting the consortium's partners. Importantly, to ensure widest possible impact, the consortium includes cultural institutions, both state-run and commercial, all with international profiles. The involvement of a very wide range of stakeholders through the Specialist Advisory Groups of Associate partners will ensure that the RICHES project's outputs are in the best possible position to influence and inform social, cultural and economic policy and practice at all levels.	- Policy Reports used as reference points by the Administrations represented among Consortium partners and Associate partners. - Recommendations and guidelines are adopted by cultural institutions contacted during the outreach activities of the project
Mapping of the context of change for CH in which CH is defined, held, preserved, curated and promoted	A specific mapping activity is planned by the project at the beginning of the research. It will be updated throughout the project life-time with the results achieved by the research teams.	- The map of practices and resources is rich in elements, institutions, cultural sectors and geographic coverage. - This enables the offer of a wide range of concrete examples to stakeholders approached during the outreach activities.

Example

3. Impact

3.1 Expected impacts listed in the work program

POLITICAL IMPACT

OPTIBIOCAT will contribute to the objectives of industrial and innovation policy as following described.

OPTIBIOCAT 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 OPTIBIOCAT 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 OPTIBIOCAT 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.

OPTIBIOCAT **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.

OPTIBIOCAT **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 OPTIBIOCAT. 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.

The major benefits to academic and research centre partners are:

TECHNICAL IMPACT

The results of OPTIBIOCAT 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 sugar esters) and their productivity (up to 1 g/l/h productivity for the synthesis of alkyl hydroxycinnamates

Example

OPTIBIOCAT-Optimized esterase biocatalysts for cost-effective industrial production

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 **OPTIBIOCAT,** 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. OPTIBIOCAT 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.*** OPTIBIOCAT 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 OPTIBIOCAT 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

2. Impact

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' (unless the work programme topic explicitly states that such a plan is not required).

- For innovation actions describe **a credible path to deliver the innovations to the market**. The plan, which should be proportionate to the scale of the project, should contain **measures** to be implemented both during and after the project

- Explain how the **proposed measures** will help to achieve the expected impact of the project. **Include a business plan** where relevant.

2. Impact

2.2 Measures to maximise impact

a) Dissemination and exploitation of results

Where relevant, include information on **how the participants will manage the research data** generated and/or collected during the project, in particular addressing the following issues:

- What **types of data** will the project generate/collect?
- What **standards** will be used?
- How will this data be **exploited** and/or **shared/made accessible** for **verification and re-use**? If data cannot be made available, explain why.
- How will this data be curated and preserved?

You will need an appropriate Consortium Agreement to manage (amongst other things) the ownership and access to key knowledge (IPR, data, etc.).

2. Impact

2.2 Measures to maximise impact

a) Dissemination and exploitation of results

- 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 peer-reviewed scientific publications which might result from the project

APRE AGENZIA PER LA PROMOZIONE DELLA RICERCA EUROPEA

Exploitation Plan

Example

enterprise europe network

What is open access?

- The practice of **providing on-line access to scientific information that is free of charge** to the **end-user** and that is re-usable.
- In the context of research and innovation, 'scientific information' can refer to
  - (i) peer-reviewed **scientific publications** (published in scholarly journals) or
  - (ii) **research data** (data underlying publications, curated data and/or raw data).

What is Open Access (OA)?

OA = online access at no charge to the user

- to peer-reviewed scientific publications to research
- data

Two main OA publishing business models

- **Self-archiving**: deposit of manuscripts & immediate/delayed OA provided by author ("Green OA")
- **OA publishing**: costs covered & **immediate OA** provided by publisher ("Gold OA")

What OA is NOT

- Not an obligation to publish
- Not at odds with patenting
- OA publications go the same peer review process

More information

EC OA website

- http://ec.europa.eu/research/science-society/open_access

European Research Area (ERA)

- http://ec.europa.eu/research/era/index_en.htm

Study to measure growth of OA

- http://europa.eu/rapid/press-release_IP-13-786_en.htm

H2020 guidance

- http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilo
- t/h2020-hi-oa-pilot-guide_en.pdf
- http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilo
- t/h2020-hi-oa-data-mgt_en.pdf

2. Impact

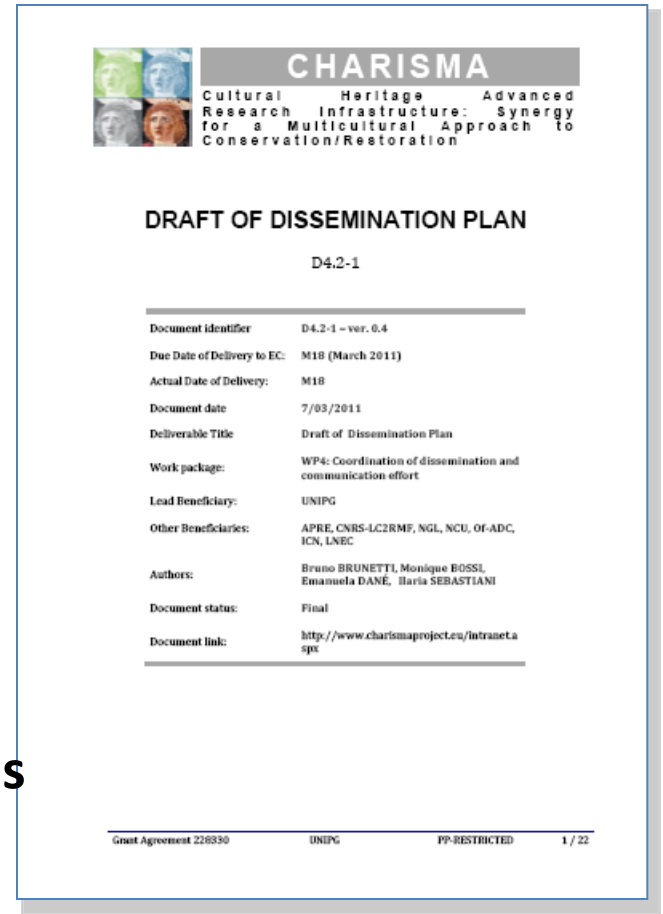
2.2 Measures to maximise impact

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.

The Dissemination and Communication Plan

- **Context** and SWOT analysis
- Defining clear **objectives** (including measurable results)
- Establishing **target** audiences
- Define the **problems** to be tackled
- Anticipating key **messages**
- Identifying the appropriate communication **partners**
- Selecting the appropriate **channels** and **tools**
- Planning the communication **process (activities)**



CHARISMA

Cultural Heritage Advanced Research Infrastructure: Synergy for a Multicultural Approach to Conservation/Restoration

DRAFT OF DISSEMINATION PLAN

D4.2-1

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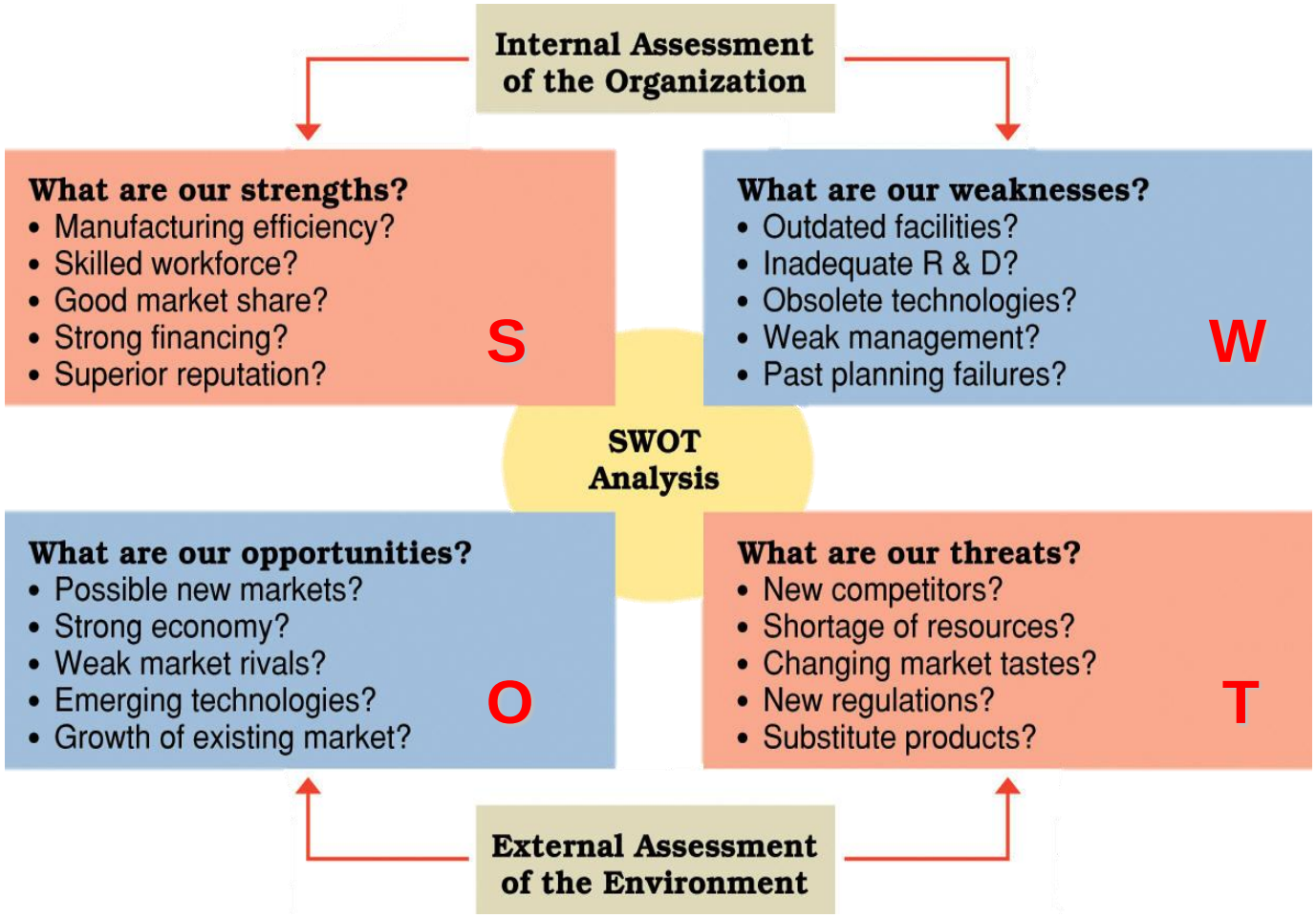
Grant Agreement 228330 UNIPG PP-RESTRICTED 1 / 22

SWOT Analysis



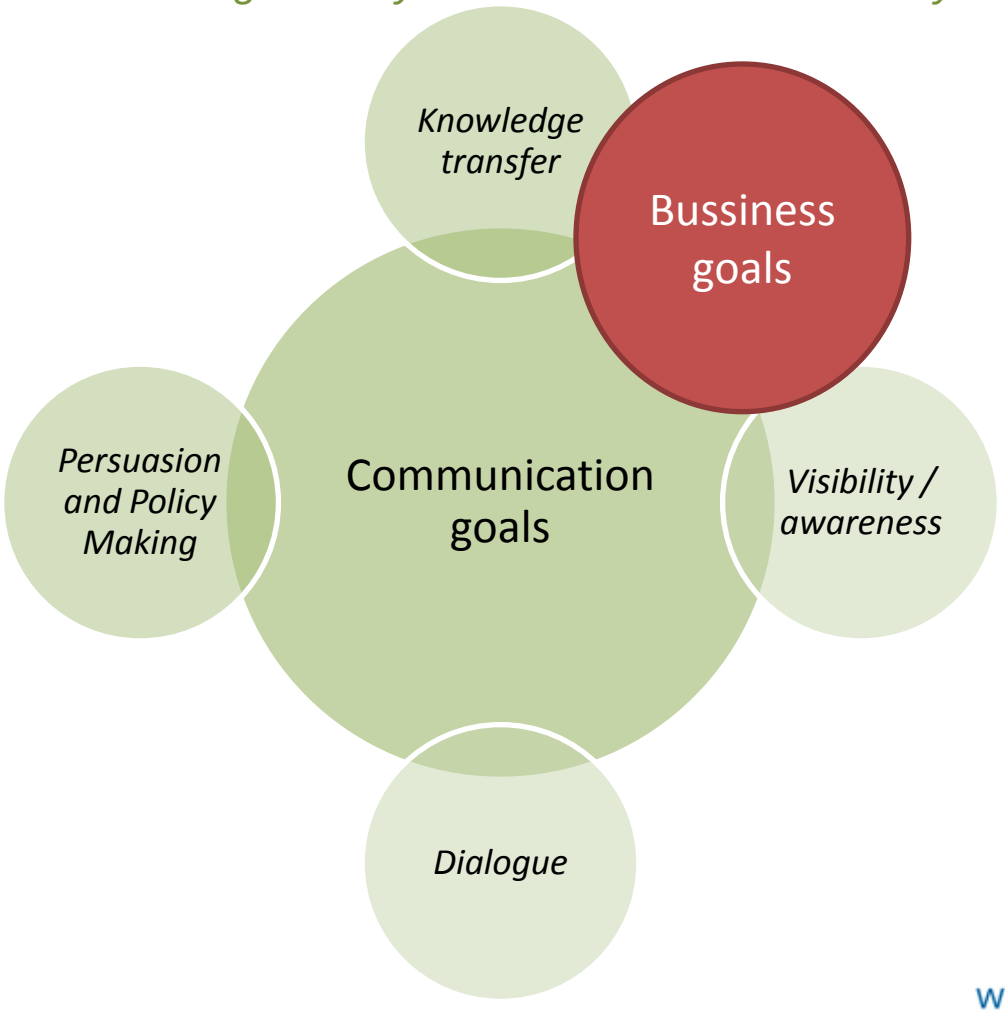
Analysis of the Context

Which elements influence your communication activities

- The **topic** of your communication (your project's topic)
- The **communication history** about the same topic
- Other key-elements of the context (e.g. cultural acceptability, legislation, politic, etc.)

Goals: what do you want achive through communication?

Determine and document the goals of your dissemination effort for your proposed project.



S.M.A.R.T. Objective

SPECIFIC

Be precise about what you are going to achieve

MEASURABLE

Quantify your objectives

ACHIEVABLE

Are you attempting too much?

REALISTIC

Do you have the resource to make the objective happens (men, money, machines, materials, minutes)?

TIMELY

State when you will achieve the objective (within a month? By February 2010?)

Target

Primary target: who is your interlocutor?

Secondary target: who does influence your primary target? Who can multiply my message?

Ex. Primary target: Policy Makers
Secondary target: media, lobbies and Parliament

Describe whom your dissemination activities are designed to reach for each of your objectives.

Message

Highlight **one or two key messages** in your dissemination plan.

It should express the **benefit** brought by a project's **achievements**.

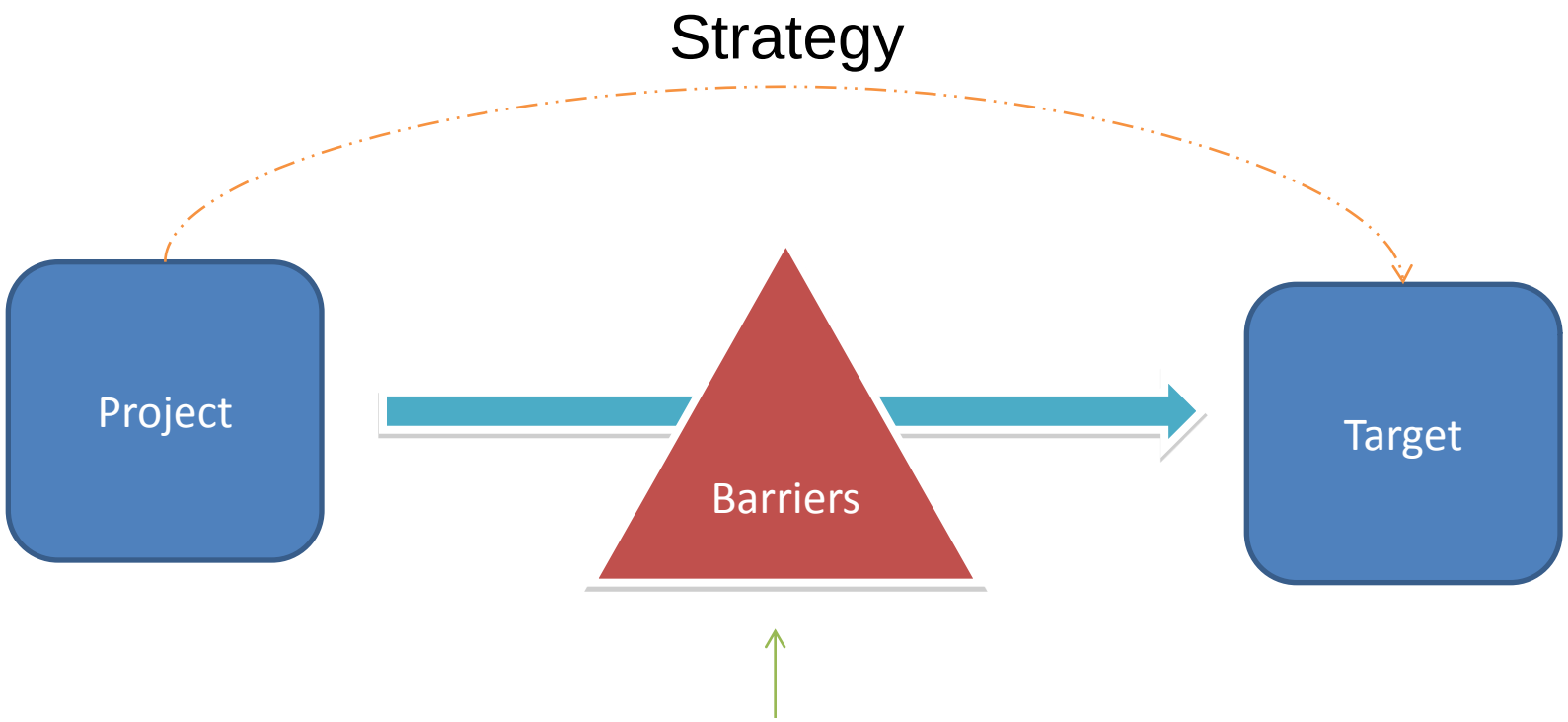
They shall be "**packed**" in a way which is **understandable** by our target(s)

How present a successful message: the SUCCESS Model

PRINCIPLE 1	PRINCIPLE 2	PRINCIPLE 3	PRINCIPLE 4	PRINCIPLE 5	PRINCIPLE 6	
						S
SIMPLE	**UNEXPECTED**	**CONCRETE**	**CREDIBLE**	**EMOTIONAL**	**STORIES**	
Simplicity isn't about dumbing down, it's about prioritizing. (Southwest will be THE low-fare airline.) What's the core of your message? Can you communicate it with an analogy or high-concept pitch?	To get attention, violate a schema. (The Nordie who ironed a shirt…) To hold attention, use curiosity gaps. (What are Saturn's rings made of?) Before your message can stick, your audience has to want it.	To be concrete, use sensory language. (Think Aesop's fables.) Paint a mental picture. ("A man on the moon…") Remember the Velcro theory of memory—try to hook into multiple types of memory.	Ideas can get credibility from outside (authorities or anti-authorities) or from within, using human-scale statistics or vivid details. Let people "try before they buy." (Where's the Beef?)	People care about people, not numbers. (Remember Rokia.) Don't forget the WIIFY (What's In It For You). But identity appeals can often trump self-interest. ("Don't Mess With Texas" spoke to Bubba's identity.)	Stories drive action through simulation (what to do) and inspiration (the motivation to do it). Think Jared. Spring-board stories (See Denning's World Bank tale) help people see how an existing problem might change.	

Made to Stick di Dan e Chip Heath

Strategy



Barriers: Identify potential barriers that may interfere with the targeted users' access or utilization of your information and develop actions to reduce these barriers

Activities

Which are the **concrete actions**, in coordination with the **strategy**, that it is necessary to realize to **reach the objective**?

Communication actions

Examples:

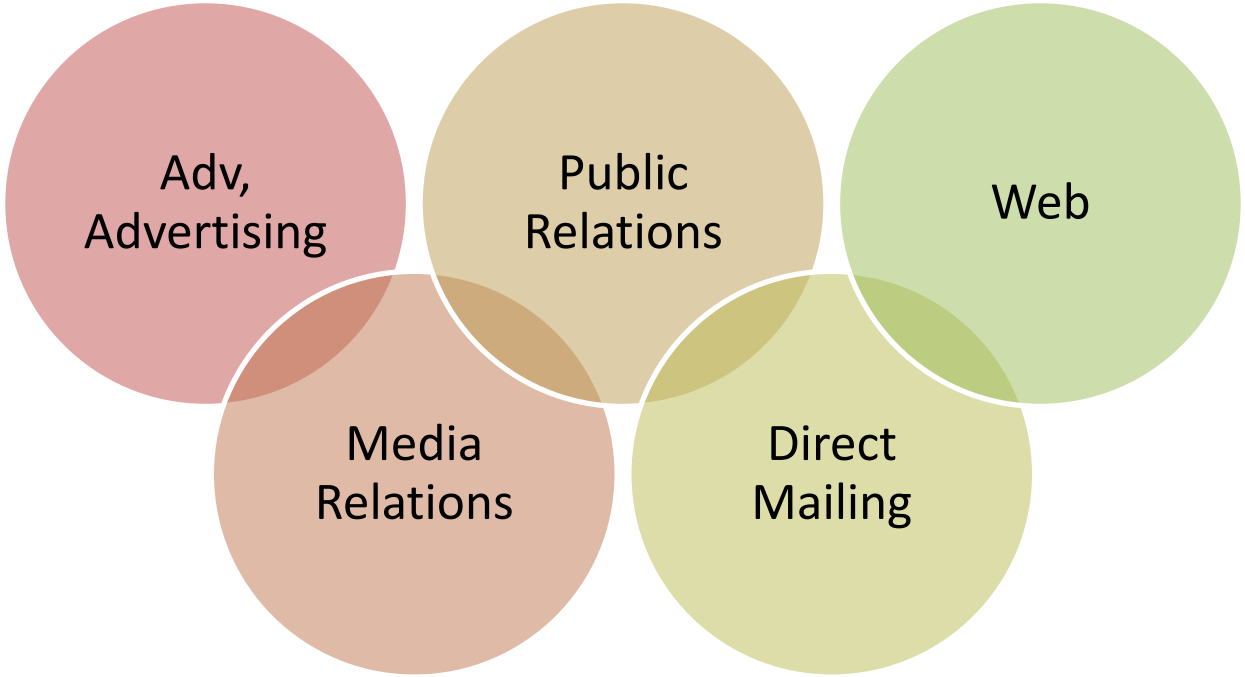
- Advisory Board
- Advertising campaign
- Press conference
- Press office / Press release / Media Relations
- Brochures and Publications
- Conference/Meeting/Brokerage events
- Web site & Social Media
- Direct mailing / Newsletters

Communication activities

For each activity selected, it's necessary to answer to these questions:

– target?
– message?
– how does it works?
– time?
– results?

Communication techniques



Remember: visibility to the EU

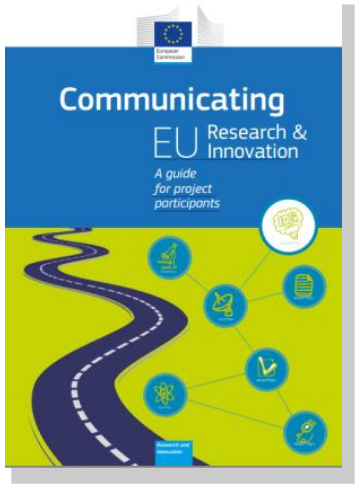
- **Any notice or publication about the project must specify that the project has received research funding from Framework Programmes, including:**
  - Conferences and presentations
  - Posters
  - Scientific & general articles
  - Books
  - Training materials
  - Software
  - Websites
  - Advertisements

Dissemination and Communication Guidelines

Communicating EU Research & Innovation

A guide for project participants

http://ec.europa.eu/research/social-sciences/pdf/communicating-research_en.pdf



Guidelines on the use of the EC's logo and visual identity

http://ec.europa.eu/dgs/communication/services/visual_identity/index_en.htm

3. Implementation

- **3.1 Work plan — Work packages, deliverables and milestones**

Please provide the following:

- brief presentation of the **overall structure of the work plan**
- **timing** of the different work packages and their components (**Gantt** chart or similar);
- Detailed work description, i.e.:
  - 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).

3. Implementation

3.1 Work plan — Work packages, deliverables and milestones

n.b.1 *Give full details. Base your account on the logical structure of the project and the stages in which it is to be carried out. Include details of the resources to be allocated to each work package. The number of work packages should be proportionate to the scale and complexity of the project*

n.b.2 *You should give enough detail in each work package to justify the proposed resources to be allocated and also quantified information so that progress can be monitored, including by the Commission*

n.b.3 *You are advised to include a distinct work package on 'management' (see section 3.2) and to give due visibility in the work plan to 'dissemination and exploitation' and 'communication activities', either with distinct tasks or distinct work packages*

n.b.4 *You will be required to include an updated (or confirmed) 'plan for the dissemination and exploitation of results' in both the periodic and final reports. (This does not apply to topics where a draft plan was not required.) This should include a record of activities related to dissemination and exploitation that have been undertaken and those still planned. A report of completed and planned communication activities will also be required*

n.b.5 *If your project is taking part in the Pilot on Open Research Data, you must include a 'data management plan' as a distinct deliverable within the first 6 months of the project. A template for such a plan is given in the guidelines on data management in the H2020 Online Manual. This deliverable will evolve during the lifetime of the project in order to present the status of the project's reflections on data*

Work package number	4	Start date or starting event:	1		
Work package title	Insertion of the crops in the existing agricultural systems				
Participant number	1	5	6	7	9
Participant short name	CRES	UNIBO	IWNIRZ	CRA-ING	Hempflax
Person-months per participant:	38	10	8	24	15
Participant number	14	17	22		
Participant short name	FCT UNL	IBFC	ARC		
Person-months per participant:	12	14	14		

Objectives: The main objective of WP4 is to investigate all the important parameters (agronomic and harvesting) for the successful insertion of the five selected crops in the existing agricultural systems.

Description of work (possibly broken down into tasks), and role of participants:

Task 4.1 Agronomic aspects for the successful insertion in the existing agricultural systems (Task leader: CRES).

In this task several agronomic aspects will be tested for the successful insertion of the studied crops in the existing agricultural systems: the rotation systems, the determination of realistic yields when cultivated in large fields as well as cultivation with waste water. *In this task emphasis will be given in flax, hemp and kenaf because two of them already cultivated in Europe and the third crop is clear to commercialisation.*

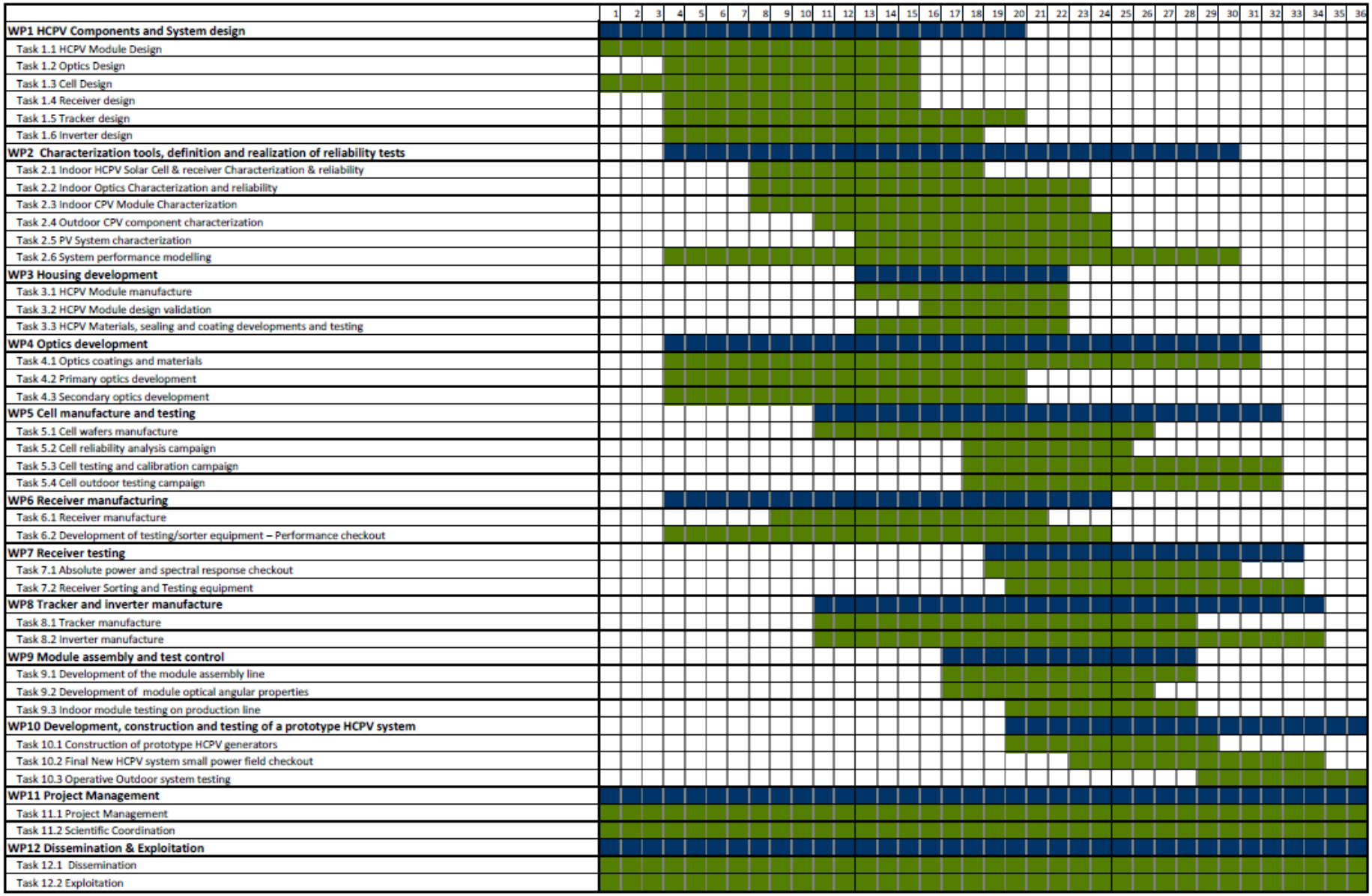
Sub-Task 4.1.1 – Crop rotation trials (CRES, *UNIBO, IBFC, ARC)* The importance of crop rotation has been long recognized as an alternative system that can reduce agriculture's dependence on external inputs through internal nutrient recycling, maintenance of the long-term productivity of the land, avoidance of accumulation of diseases and pests associated with mono-cropping and increased crop yields. However, barriers that would stop farmers for adopting crop rotation systems are the need for diversified farm activities, and information, as well as more diversified equipment and storage facilities. In 4FCROPS (www.4fcrops.eu) crop rotations have been suggested for three out of the five selected crops. In this task two crop rotations will be tested: a) the three of the crops (hemp, flax and kenaf) to act as leading crop, following by a cereal and legume and b) in a rotation dedicated to non-food uses with rapeseed as a leading crop, followed by flax and/or kenaf and sunflower. Crop rotation trials will be contacted for four subsequent years in Greece, Italy, Poland, China and South Africa.

Sub-Task 4.1.2 – Sustainable cultivation strategies (FCT UNL)

The purpose of this work is to test the potential of several fiber crops in the phytoremediation of wastewaters containing high levels of nutrients, and analyze the quality and quantity of the biomass being produced. To evaluate the ability of fiber crops to phytoremediate waters and wastewaters, several essays in lysimeters are programmed. Sewage wastewaters, enriched in nutrients, but also in metals, with different pollutant loads, will be used in the irrigation of the crops.

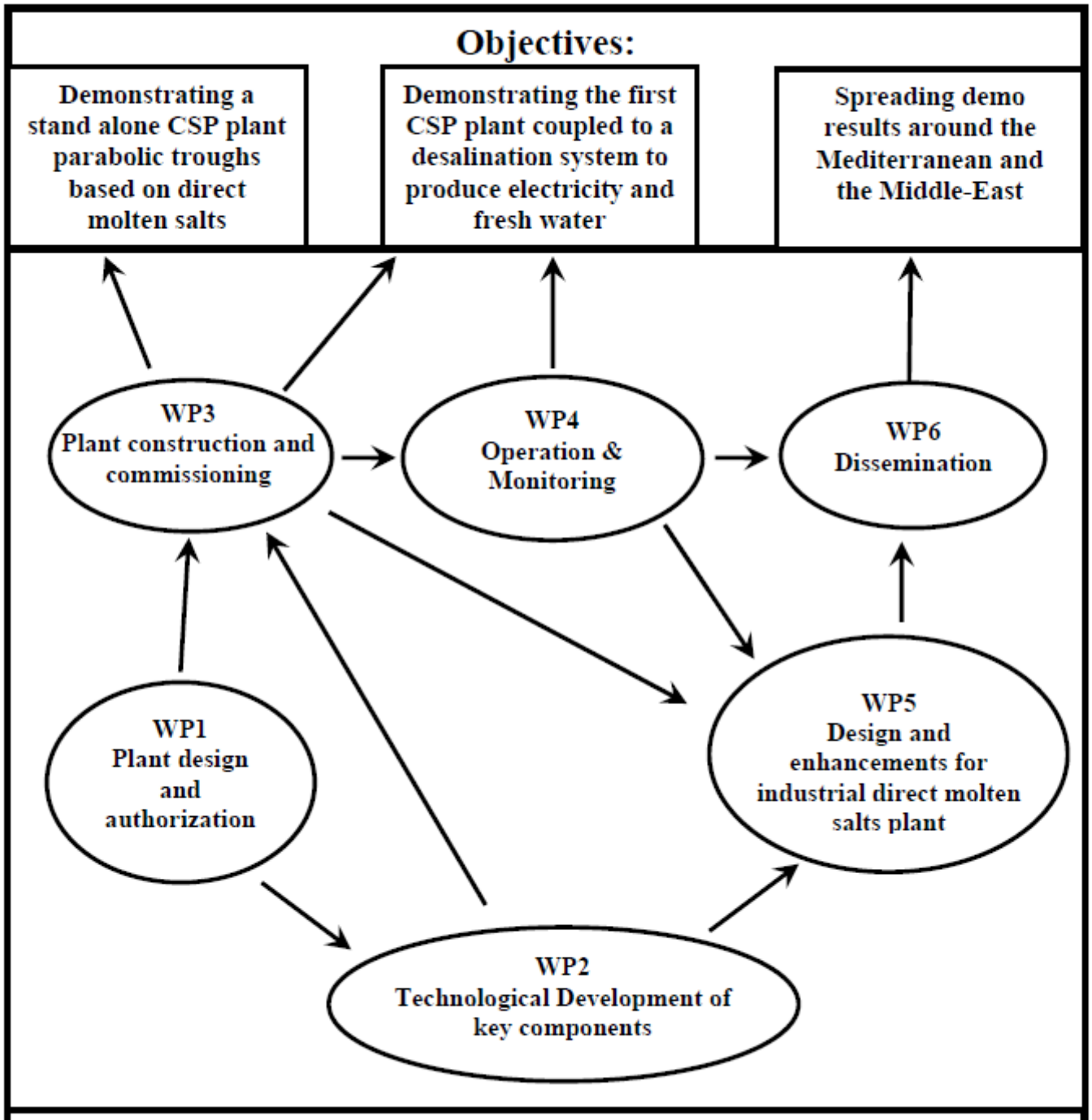
Example

1.3.2 Gantt chart



Example

v) Graphical presentation of the components (Pert Diagram)



Example

Implementation

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**)

MNG STRUCTURE/PROCEDURES

GOVERNANCE

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

- Procedures for Grant Agreement /Consortium Agreement revision
- Decisions related to defaulting or leaving parties, access of new beneficiaries

GOVERNANCE

POSSIBLE BODIES

- GENERAL ASSEMBLY

  (all partners; the “consortium” in the GA)

- EXECUTIVE COMMITTEE (or Management Board)

  (coordinator+ WP leaders)

- SUB WP MANAGEMENT BOARD

  (all partners or WP leaders)

- OTHER SPECIFIC BOARDs

  (IPR; GENDER; ETHICAL aspects etc.)

WP 'MANAGEMENT'

INITIAL/FINAL WP

PARTNERS INVOLVED:

- Only Coordinator?
- Coordinator and WP Leaders?
- Coordinator and Project Management Office?
- all?

TYPICAL TASKS :

- Governance
- Communication
- Project meetings (based on the number of partners, criticalities, ecc…)
- Reporting (based on official reporting periods)
- Quality check
- Distribution of EC contribution/Financial issues
- etc…

TYPICAL DELIVERABLES:

- Periodic/Interim Reports
- Definition of quality procedures

TYPICAL MILESTONES:

- project meetings
- Appointment of advisors/external experts

DURATION = project duration

BUDGET= no formal limits, but around 7% of the total EC contribution

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 contributes 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

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)

EXAMPLES

Work package description

Work package number	1	**Start date or starting event:**			Month 1			
Work package title	Project Management							
Activity Type	MGM							
Participant	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Participant id.	1	2	4	6	7	13	16	18
Person-months per beneficiary:	38	3	2	3	3	3	3	34

Objectives

-Lead the [redacted] project to technical, organisational and financial achievement;
-Set up and run the project decision-making bodies;
-Define tasks along with responsibilities and a work distribution between the participants and the related resource requirements;
-Ensure and monitor the overall consortium objective is met with high quality, on time and within budget;
-Provide Reports and other Grant Agreement rec

Description of work

Project management will be aimed at monito
decisions and actions to ensure that the project v
an adequate amount of resources.

Task 1.1 Project Bodies Functioning (Resp.: A
Two bodies are in charge of project managen
Governing Board (GB) and (2) the Steering Cor
in the Consortium Agreement (CA) under dis
relations and rights among participants and *vis-*
decision-making procedures, methods for reviev
disputes and the distribution of the EC grant. A
right issues, relating to ownership, protection, us
will be adequately dealt with in the Consortium
T2.1a [APRE]- *Governing*
Overall decisions will be made by the Governin
of the institutions participating in

Task 1.2 "Quality assurance" (Resp.:
SC is in charge of evaluating technical progre
assessing the project results, feedback of the re
goals, and overall coherence. In this role, the SC
status of each work package, and will ensure the
will be standardised by inter-laboratory quality
to join the efforts and complementary capabi

Task 1.3 "Financial issues" (Resp.:)
The Community financial contribution will be distributed among partners, in accordance with the Grant Agreement, the Consortium Agreement and the decisions taken by the consortium. Main activities: (i) the transfer of EC contribution; (ii) the budget assessment, according to the project activities and following the decisions taken by the consortium.

Task 1.4 "Reporting" (Resp.:)
Enhance and facilitate the reporting process to the EC. Manage the reporting process and appropriate exchange of information with partners. Evaluating, binding and sending the periodical Reports and Annexes (,).
The task envisages the main following activities: (i) Activity Report of major achievements during the reporting period; collecting the WP Leader's reports to be made accessible to project partners on the protected Web site ( ); (ii) Define templates for reporting and specific guidance for project participants, utilise a specific reporting web-based tool; summarizing a number of rules and suitable procedures concerning the reference documents, the financial matters (payments, costs, financial statements, audits); reporting issues, such as explanation of the use of the resources, nomenclature, deliverables, formats and deadlines ( ); (ii) Management report: Collecting the Partners' Financial Report, giving homogeneity to all the information provided by the partners both in terms of content and editing; ensuring consistency between the expenses claimed by the partners and the activity performed ( ); (iii) Collecting the Form C and Audit Certificates, if any, verifying missing data ( ); (iv) FAQ, general provisions governing the role and responsibilities of the partners, financial and contractual aspects ( ).

Deliverables

1.2-1 Definition of quality control procedures (M11)
1.2-2 Monitoring of project obligations (Del. & Mil. periodic status check) (M6, M12, M18, M24, M30, M36, M42)
1.4-1 Project reporting templates and guidance (M10)
1.4-2 Periodic reports (M14, M26, M38, M50)
1.4-3 Final Report (M50)

CP/CSA with 21 partners, 7.000.000€ EC contribution, 48 months duration (4 reporting periods)

The coordinator is supported by a Project Management Office and the WP Leaders in the MGT activities
(the PMO is a beneficiary, while the WP Leaders are involved because part of the Steering Committee)

Activity Type[1]	MGT								
Participant number	1	2	3	4	5	6	7	8	9
Participant short name	[redacted]								
Person-months per participant:	10	3	3	3	3	3	3	3	3
Participant number	10	11	12	13	14	15	16	17	18
Participant short name	[redacted]								
Person-months per participant:	3	3	3	3	3	3	45	3	

Objectives

- Lead [redacted] project to technical, organisational and financial success
- Ensure smooth running of the project decision-making structure
- Manage the communication flow within the Consortium and towards the European Commission
- Monitor appropriateness of work, as well as prompt achievement of project deliverables
- Define suitable shared procedures to facilitate financial and accounting management
- Set up of Independent Scientific Advisory Panels (SAPs)
- Set up of Knowledge Protection and Exploitation Committee (KPEC)
- Provide advice on legal and financial matters
- Distribute the EC contribution and monitor the concerned financial flow
- Collect and submit project reports
- Handle the Consortium Agreement

Description of work

Task 12.1 – Decision-making bodies
Partners involved: [redacted], APRE, All partners
Two different bodies, in addition to the project coordinator, are mainly involved in the decision making structure: the General Assembly, consisting of one representative for each beneficiary, and the Steering Committee, including all WP Leaders.
The Project General Assembly (PGA) represents the highest decision making body. It meets at least once a year and takes all major decisions regarding the project implementation and about any modifications to the work plan/consortium structure and project budget.
The Project Steering Committee (PSC) guarantees the overall and interdisciplinary management, coordinates Work-packages activities and monitors the scientific progress and achievement of objectives. It meets at least twice a year and is responsible for the project governance.
The Project Coordinator (PC) chairs the two bodies. It acts as intermediary with the European Commission, undertaking appropriate contacts and information exchange both with REGENERA partners and EC officials. Its responsibilities include the administration of the EC contribution in terms of allocation among beneficiaries and related activities.

Task 12.2 – Project Management Office
Partners involved: [redacted], APRE, All partners

Task 12.3 – "Quality check"
Partners involved: [redacted], APRE, All partners
The evaluation of technical progress (Milestones and Deliverables), as well as review and assessment of project results is mainly under the PSC responsibility. The PSC is in charge of the project quality control and ensures the high quality of the outcomes. The methodology is standardised at WP level, in order to establish a common understanding and to benefit from beneficiaries' efforts and complementary capabilities.
A quality check of Deliverable & Milestones is provided on a six monthly basis in order to support the project monitoring progress ([redacted]).
The PSC also refers to eight Independent Scientific Advisory Panels (SAPs) which support the project with an independent scientific guidance and critical view. Each panel is made by independent experts - selected by the partners (in brackets) - able and willing to offer external advice in the following fields:
1. Micro-nano technologies ([redacted]);
2. Polymeric materials ([redacted]);
3. Pre-clinical experimentation of SDVGs ([redacted])
4. Clinical trials of SDVGs ([redacted])
5. Pre-clinical experimentation of CPs ([redacted])
6. Technology transfer ([redacted])
7. Heart ischemia computer modelling ([redacted])
8. GMP ([redacted])

The SAPs are a non-executive advisory resources, providing recommendations and advice to the PSC on scientific and gender related matters. To that end, the SAPs will regularly meet once a year - if possible during the PGA meetings - and critically review the periodic scientific reports (both annual and interim ones).

Task 12.4 – IPR Management
Partners involved: [redacted], APRE, All partners
IPR related issues (beneficiaries' background excluded, joint ownership of foreground, access rights, etc…) are widely and specifically addressed in [redacted] Consortium Agreement.
Moreover, the Knowledge Protection and Exploitation Committee (KPEC), consisting of an authorized representative for each beneficiary plus three individual experts in the IPR field and chaired by the PC, oversees the overall IPR management and exploitation practices, analyzing product performance, industrial production cost, market analysis and market positioning.
While identifying the individual experts, the PC ensures that both public and private peculiarities are considered: one coming from public sector, one from private and one super-partes (eg. EPO, IPR Help-Desk, etc…).
The KPEC meets annually, if possible in combination with the PGA meetings.

Task 12.5 – Reporting
Partners involved: [redacted], APRE, All partners
In addition to the Periodic reports required by the EC, an Activity Interim Report is provided by each partner on a six monthly basis; it entails a description of the activities carried out so far at WP level, providing details on the concerned deliverables and milestones.

Deliverables
D 12.1 – General Assembly Meetings (M1, M13, M25, M37, M49, M60)
D 12.2 – PSC Meetings [Agenda, Minutes] (M1, M7, M13, M19, M25, M31, M37, M42, M49, M55, M60)
D 12.3 – SAPs Meetings [Agenda, Minutes] (M1, M13, M25, M37, M49, M60)
D 12.4 – KPEC Meetings [Agenda, Minutes] (M1, M13, M25, M37, M49, M60)
D 12.5 – Non disclosure agreement model (for SAPs and KPEC individual experts) (M2)
D 12.6 – Model procedures and templates for project reporting and deliverables (M4)
D 12.7 – Interim 6 months Activity Reports (M7, M19, M31, M42, M55)
D 12.8 – Reporting Guidelines (M10)
D 12.9 – Periodic Activity and Management Reports (M14, M26, M38, M50, M60)
D 12.10 – Reports on IPR Management (M30, M60)
D 12.11 – Final Report (M60)

Innovation Management

- Innovation management is the discipline of **managing processes in innovation**
- It can be used to develop both **product** and **organizational** innovation
- It includes a set of tools that allow **managers** and **engineers** to **cooperate** with a **common understanding of goals and processes**, understanding both **market** and **technical** problems**.**
- The focus of innovation management is to allow the organization **to respond to an external or internal opportunity, and use its creative efforts to introduce new ideas, processes or products**
- It **is not relegated to R&D**; it involves workers at every level in contributing creatively to a company's development, manufacturing, and marketing

The risks will be controlled by:

- The coordination responsibility within large WPs being clearly divided up between WP Leaders and Task/Sub-task Leaders that represent the special excellence in the field of the particular tasks.
- Regular intercommunication, review and reporting on progress within WPs (by WP Leaders and Task/Sub-task Leaders);
- The identification and prioritization of risks inherent in the project;
- Selecting the appropriate risk management approaches and avoiding risks that the project is not competent to or willing to manage;
- Implementing controls to manage the remaining risks;
- Learning from experience and making improvements to the project.

Example

Specific risks and contingency plans: WP?

Possible risk	*Contingency plans*
Under- or over-estimate work load.	Management team discussion and adaptation of the work plan, in agreement with the scientific officer, for deliverables and milestones.
Insufficient communication and data/and material delivery between partners.	Improved communication infrastructure. Extra meetings (face-to-face, telephone, Skype conferences).
Conflicts within the Consortium.	Evaluated reasons and try to resolve. If necessary, use of a mediator from outside to solve disagreements.
Trial site and personnel changes	Commitment letter undersigned by partners. Management team discussions. Reorganization of project activities in agreement with the scientific officers

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.

Example

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	BECAR, OEC
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	BECAR

RISK)			
Insufficient consensus and IPR problems arising on releasing information through publications or Reference implementations. (MANAGEMENT RISK)	LOW	HIGH	Probability of this is very low to insignificant. The project partnership is including these issues already to consortium agreement (of which we already have an early understanding) including statements.
Loss of critical competencies or of key people in the project (TECHNICAL/MANAGEMENT RISK)	LOW	HIGH	- Make sure that in most cases a partner can replace a key competence internally in the organization - Get early indication of possible withdrawal of key persons from partner if not internally replaceable - Contact all partners on the availability of comparable competencies amongst other partners of the project. Budgets will be shifted from the "defaulting" partners
Loss of technical orientation because of lack of internal and external knowledge (MANAGEMENT RISK)	LOW	MEDIUM	- Scan and monitor relevant technological and scientific areas - Take an active role in scientific community - Proactively disseminate information via email lists, telephone conferences and tutorials at meetings
Adoption of a standard that may become obsolete or new market standards introduced (EXPLOITATION RISK)	LOW	LOW to MEDIUM	All new components will be developed basing on technologically proved standards. In the unlikely event that a new component will be approved and entered into the market close during the project, the industrial partners will decide whether invest further efforts in the development and inclusion of that component in the system.

Example

Implementation

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

CONSORTIUM AS A WHOLE

FOCUS ON:

- **MAJOR PARTNERS**
  - Each partner has a well define **role** (complementarity -'vertical' partnership)
  - Mapping of **expertises** (table?)
  - Highlight different **types** of partners (Universities, SMEs, Public bodies, etc…)
  - **Geographical** distribution (New Member States? Third Countries?...)
  - Link project **results** to partners
- **Involvement of external *stakeholders***
  - Adivisory Committee
  - End-users: Evaluation Committee

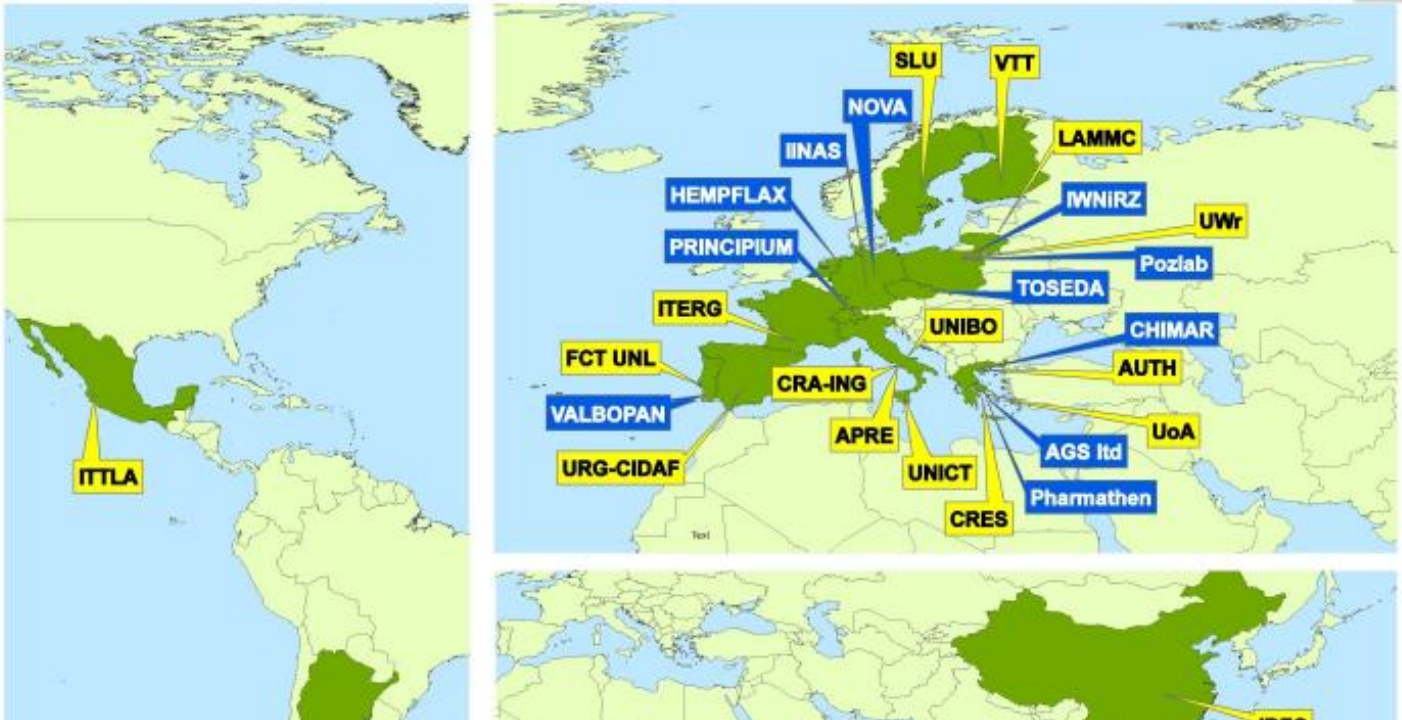
Consortium as a whole

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



BIOTECHONOLOGY	THE CROPS	THE PRODUCTS
SLU (SE)	CRES (GR)	VTT (FI)
UNIBO (IT)	UNIBO (IT)	NOVA (DE)
URG CIDAF (ES)	INF&MP (PL)	CHIMAR (GR)
UoA (GR)	CRA-ING (IT)	HEMPFLAX (NL)
UWr (PL)	HEMPFLAX	UNIBO (IT)
FCT UNL (PT)	UNICT (IT)	TOSEDA (CZ)
INDEAR (AR)	FCT UNL (PT)	VALBOPAN (PT)
ITTLA (MX)	IBFC (CN)	ITERG (FR)
	LRCAF (LI)	PRINCIPIUM (CH)
	INDEAR (AR)	AUTH (GR)
	ARC (ZA)	QUIMICAS (ES)
		POZLAB (PL)
		PHARMATHEN (GR)

Horizontal actions
IINAS (DE), NOVA (DE), ASG Ltd (GR), CRES (GR), APRE (IT)

Example

Consortium as a whole

The consortium of the proposed ***NeStoRe*** collaborative project is made up of 9 European participants, coming from 6 different Member States of the European Union.
NeStoRe 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. FBK	Research	IT	– project coordinator (**WP0**); – member of **TTB** for 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. TUG	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. UT	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. K+W	SME (?)	DE	– member of **TTB** for project exploitation of results;

Example

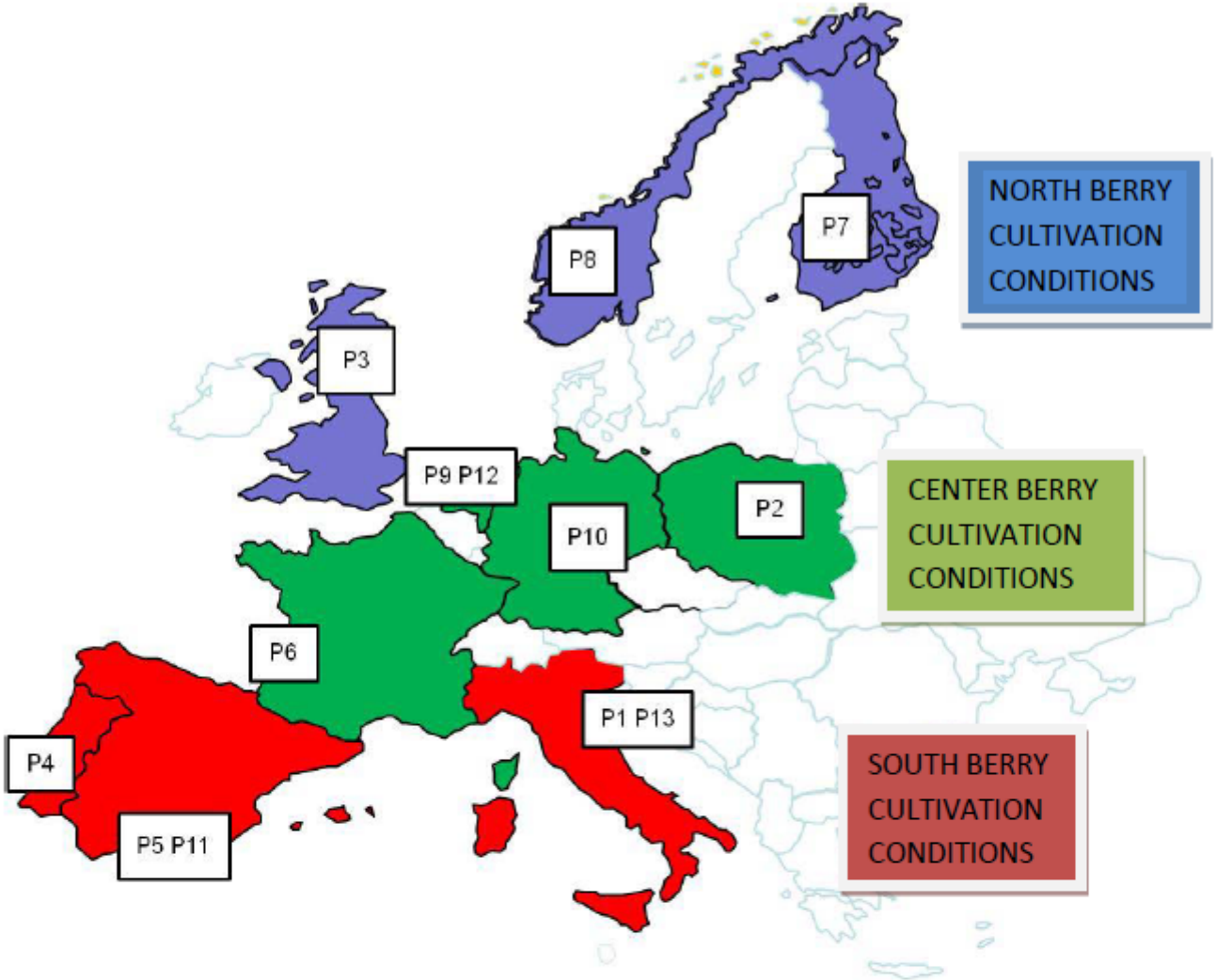


Figure 2.3.1. Geographical distribution of the partners in the 3 main EU climatic areas.

Example

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

3. Implementation

3.4 Resources to be committed

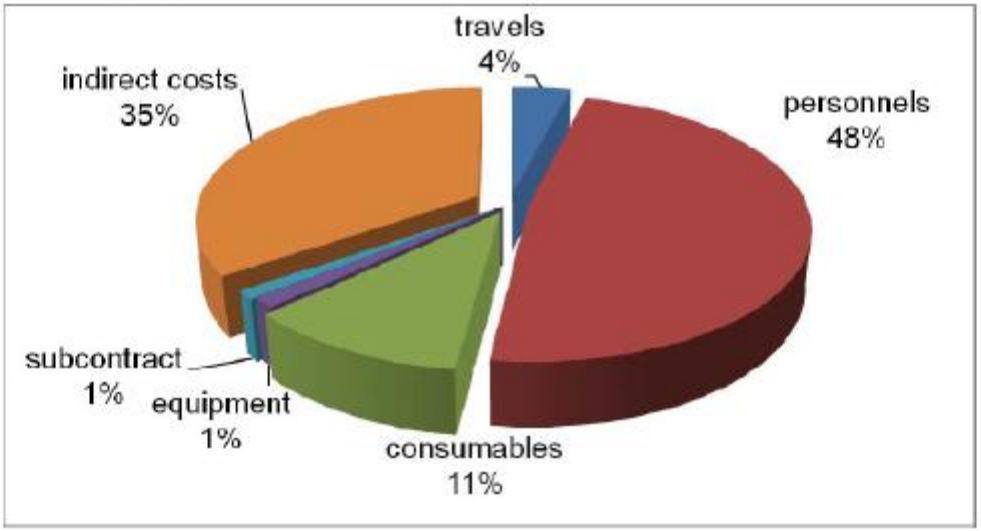
- a table showing number of person/months required (table 3.4a)
- a table showing 'other direct costs' (table 3.4b) for participants where those costs exceed 15% of the personnel costs (according to the budget table in section 3 of the administrative proposal forms)

Exercise

Example

2.4 Resources to be committed

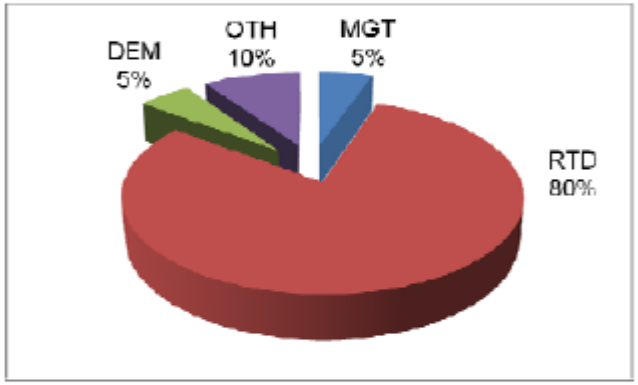
OPTIBIOCAT has 4-year total budget of **EUR 9,331,713** and request a total contribution from the EC of **EUR 7,210,459** to carry out the proposed work plan. The project activities will benefit from already existing facilities and equipment owned by partners (described in the sections 2.2). The distribution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

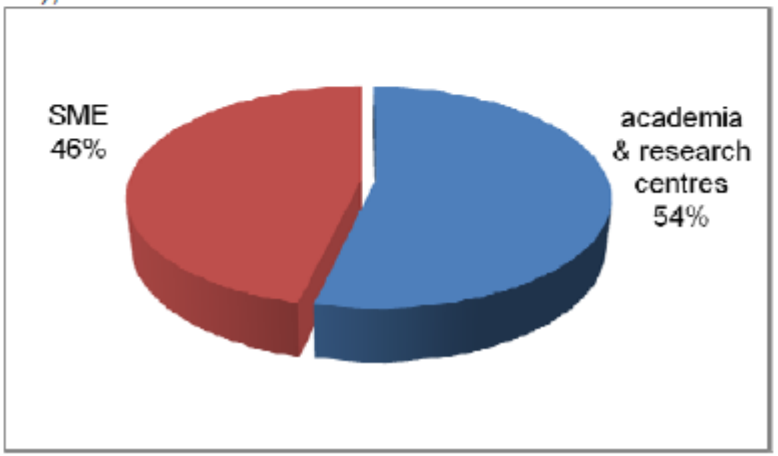
Indirect costs: the indirect costs indicated by the partners were included in accordance with the methods they use as indicated in the forms A3.

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.



Members of the consortium

4.1. Participants (applicants)

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.]

Members of the consortium

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	

Ethics and Security

5.1 Ethics

- 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

Ethics and Security

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)

Acronym

- RfP: Rules for Participation
- FR: Financial Regulation
- RAP: Rules of Application
- WP: Work Programme
- EIT: European Institute of Innovation and Technology
- GA: Grant Agreement
- MS: Member States
- AC: Associated countries
- SME: Small Medium Enterprise
- ERC: European Research Council
- MSC: Marie S. Curie
- CSA: Coordination and Support Actions
- PCP: Pre-Commercial Procurement
- PPI: Procurement of innovative solutions
- GF: Participant Guarantee Fund
- IPR: Intellectual Property Right
- FTI: Fast Track to Innovation action
- SC: Societal Challenge
- LEIT: Leadership in enabling and industrial technologies

PROPOSAL WRITING TIPS

Un po' di LOBBY

PRIMA DELLA PRESENTAZIONE DEL PROGETTO

Confrontare con gli NCP, la Delegazione e i funzionari della Commissione la consistenza della vostra idea progettuale

Aiutate i valutatori

Scrivete in modo chiaro, conciso, studiando **l'argomentazione**, il flusso dei contenuti, e organizzando il testo in maniera coerente nella sua globalità.

Non considerate solo gli aspetti scientifici (non è valutato come uno *scientific paper*).

Ma anche quelli politici, economici e sociali. E dimostrate la vostra preparazione anche su questi temi con dati e cifre

Take care of the *Summary*

- Project officers frequently rely on the summary when choosing reviewers.
- Evaluators use the summary as a template or guide to the document. Their impression of the summary is critical.
- Summaries also are used later to remind evaluators of the key elements of the design and of the expected outputs.
- Summaries will be made public, if the proposal is funded.

Soddisfare..

CIASCUN criterio di valutazione

- **Titolo** coerente, acronimo
- **Sintesi** organica del progetto

  (obiettivi, risultati, approccio R&D, partnership, utilità dei risultati, sfruttamento)
- Convincente **background e stato dell'arte**
- Chiarire **obiettivi**, **metodi**, **risultati** e **deliverables**
- Un piano di lavoro ben **strutturato**
- Un'appropriata struttura del **management**
- Un piano dettagliato per l'implementazione e lo sfruttamento dei **risultati**
- Una descrizione realistica dei **costi**
- Un **consorzio** bilanciato (ruoli, qualifiche)