

Il Programma Horizon 2020 - Come strutturare la proposta

Parte A e Parte B

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**

PART A: administrative forms

A1: General Information

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

A2: Administrative data of all participating institutions


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

A3: Budget

PART B: research proposal

1. Excellence (science)
2. Impact
3. Implementation
4. Members of the Consortium
5. Ethics and Security

Scrivere la parte A

 Part A to be completed online

LOGIN

FUNDING SCHEME

CREATE DRAFT

PARTIES


EDIT PROPOSAL


SUBMIT


Step 5

Edit Proposal

NCP_IA

 Agnes Hegyvarine nagy

 ICT-01-2014

 IA

WED 23

April 2014 17:00:00
Brussels Local Time

73

days left until closure

Acronym

ID


PIC

Contact

Acronym

test

Configuration OK



Edit Proposals' Forms

In this step you can edit the administrative forms and upload the proposal itself. ?

WARNING: This proposal contains changes that have not yet been submitted...

Administrative Forms

Edit will open the forms in Adobe Reader. ?

edit forms

view history

print preview


Part B and Annexes

In this section you may upload the technical annex of the proposal (in PDF format only) and any other requested attachments. ?

download templates


Technical Annex Section 1-3

upload

 ?

Technical Annex Section 4-5

upload

 ?

Administrative edit



Proposal ID

Acronym

1 - General information

Topic	Type of action
Call identifier	Acronym <input type="text"/>
Proposal title*	<input type="text"/> <small>Max 200 characters (with spaces). Must be understandable for non-specialists in your field.</small>
Duration in months	<input type="text"/> <small>Estimated duration of the project in full months.</small>
Fixed keyword 1	<input type="text"/> <input type="button" value="Add"/>
Free keywords	<input type="text"/> <small>Enter any words you think give extra detail of the scope of your proposal (max 200 characters with spaces).</small>

Abstract

Short summary (max. 2,000 characters, with spaces) to clearly explain:

- the objectives of the proposal
- how they will be achieved
- their relevance to the work programme.

Will be used as the short description of the proposal in the evaluation process and in communications with the programme management committees and other interested parties.

- Do not include any confidential information.
- Use plain typed text, avoiding formulae and other special characters.

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

Remaining characters 2000

Has this proposal (or a very similar one) been submitted in the past 2 years in response to a call for

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

Forms

Please fill out the following form. You cannot save data typed into this form.
Please print your completed form if you would like a copy for your records.

Proposal ID **SEP-210129116** Acronym **yedkj**

1 - General information

Topic **WASTE-1-2014** Type of action **IA**

Call identifier **H2020-WASTE-2014-two-stage** Acronym **yedkj**

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

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

Fixed keyword 1 Add

Free keywords *(max 200 characters with spaces).*

Abstract

udflv

- Informatics and information systems
- Numerical analysis, simulation, optimisation, modelling tools, data
- Scientific computing, simulation and modelling tools
- Communication networks, media, information society
- Networks (communication networks, sensor networks, networks of
- Simulation engineering and modelling
- Standardisation
- Applied and industrial chemistry
- Polymers and plastics

Choose your keywords



Proposal ID

Acronym

Declarations

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

4) The coordinator confirms:

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

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

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

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

Personal data protection

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



Proposal ID

Acronym

Participant

2 - Administrative data of participating organisations

PIC**Legal name***Short name:**Address of the Organisation*

Street

City

Postcode

Country

Webpage

Legal Status of your organisation

Research and Innovation legal statuses

Public body no

Non-profit no

International organisation no

International organisation of European interest no

Secondary or Higher education establishment no

Research organisation no

Small and Medium-sized Enterprises (SMEs) no

Academic Sector no

Legal person

Nace code

Example, not to complete

European Commission - Research - Participants
Proposal Submission Forms
 Directorate-General for Research and Innovation

Proposal ID	Acronym	Participant
-------------	---------	-------------

Person in charge of the proposal

Title Sex ☐ Male ☐ Female

First name Family name

E-Mail

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

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

Street ☐ Same as organisation address

Town Post code

Country

Website

Phone Phone 2 Fax

Other contact persons

First Name	Last Name	E-mail	Phone
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

File, not to complete

Contact persons

Person in charge of the proposal

It is the main scientist or team leader in charge of the proposal for the participant. For participant number 1 (the coordinator), this will be the person the Commission/Agency will contact concerning this proposal (e.g. for additional information, invitation to hearings, sending of evaluation results, convocation to negotiations). The data in blue is read-only.

Title	<input type="text"/>	Sex	<input type="radio"/> Male <input type="radio"/> Female
First name	Agnes	Family name	Hegyvarine nagy
E-Mail	agnes.nagy-hegyvarine@ec.europa.eu		
Position in org.	<input type="text" value="Please indicate the position of the Contact Point above in the organisation."/>		
Department	<input type="text" value="Please indicate the position of the Contact Point above in the organisation."/>		
Street	<input type="text"/>	<input type="checkbox"/> Same as organisation address	
Town	<input type="text"/>	Post code	<input type="text"/>
Country	<input type="text"/>		
Website	<input type="text"/>		
Phone	<input type="text"/>	Phone 2	<input type="text" value="+XXX XXXXXXXXXX"/>
		Fax	<input type="text" value="+XXX XXXXXXXXXX"/>

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

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

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

A3 – Budget

Research and Innovation actions

No	Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub- contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of inkind contributions not used on the beneficiary's premises/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F +G)	(I) Reimburse- ment rate (%)	(J) Max.EU Contribution / € (=H*I)	(K) Requested EU Contribution/ €
1			0	0	0	0	0	0,00	0	0,00	100	0,00	0,00
	Total		0	0	0	0	0	0,00	0	0,00		0,00	0,00

Innovation actions

No	Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub- contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of inkind contributions not used on the beneficiary's premises/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D +F+G) (Beneficiary)	(I) Reimburse- ment rate (%) (Beneficiary)	(J) Max.EU Contribution / € (=H*I) (Beneficiary)	(K) Costs of third parties linked to participant (Third parties)	(L) Max.EU Contribution / € (Third parties)	(M) Total Costs for (beneficiary + third parties) (=H+K)	(N) Max.EU Contribution / € (beneficiary + third parties) (=J+L)	(O) Requested EU Contribution/ €
1			0	0	0	0	0	0,00	0	0,00	100	0,00	0	0	0,00	0,00	0,00
	Total		0	0	0	0	0	0,00	0	0,00		0,00	0,00	0,00	0,00	0,00	0,00



A3 – Budget



European Commission - Research - Participants
Proposal Submission Forms

Example

Proposal ID 652627

Acronym In2Market

3 - Budget for the proposal

Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub- contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of in kind 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

3 - Budget for the proposal



(A) Direct personnel costs/€

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

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

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

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

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

Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub- contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of inkind contributions not used on the beneficiary's premises/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F +G)	(I) Reimburse- ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
		?	?	?	?	?	?	?	?	?	?	?

3 - Budget for the proposal

?

(B) Other direct costs/€

X

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

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

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

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

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

Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub- contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of in-kind contributions not used on the beneficiary's premises/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F +G)	(I) Reimburse- ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal

?

(C) Direct costs of subcontracting/€

X

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

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

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

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

Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub- contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of inkind contributions not used on the beneficiary's premises/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F +G)	(I) Reimburse- ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
		?	?	?	?	?	?	?	?	?	?	?
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal



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



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

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

Example: As part of your proposal, you plan a prize or a competitive call for proposals for the development of a specific electronic device. The prize or call is open to legal entities outside the project. You select one or more successful applicants and award the prize or reimburse them to cover their development costs for the device.

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

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

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

Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub- contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of inkind contributions not used on the beneficiary's premises/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F +G)	(I) Reimburse- ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
		?	?	?	?	?	?	?	?	?	?	?
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal

?

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

X

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

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

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

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

Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub- contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of inkind contributions not used on the beneficiary's premises/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F +G)	(I) Reimburse- ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
		?	?	?	?	?	?	?	?	?	?	?
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal



(F) Indirect costs/€ (=0.25 (A+B-E))



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

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

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

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

Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub- contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of inkind contributions not used on the beneficiary's premises/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F +G)	(I) Reimburse- ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
		?	?	?	?	?	?	?	?	?	?	?
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal

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

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

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

The following types of costs may be included here:

- costs of additional energy efficiency measures (Decision C(2013) 819626)

This category of unit costs will only apply for Smart Cities and Communities calls. For example, call SCC-01-2014 in the H2020 Work Programme 2014-2015.

- costs for providing trans-national access to research infrastructures (Decision C(2013) 819927)

This category of unit costs will apply only to Research Infrastructure calls. For example, calls INFRAIA-1-2014-2015, INFRADEV-3-2015 and INFRADEV-4-2014-2015 in the H2020 Work Programme 2014-2015.

- costs of clinical studies ([DRAFT Decision \(2014\)](#))

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

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

Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub- contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of in-kind contributions not used on the beneficiary's premises/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F +G)	(I) Reimburse- ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
		?	?	?	?	?	?	?	?	?	?	?
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

?

X

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

Calculated automatically based on the amounts you entered.

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

Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub- contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of inkind contributions not used on the beneficiary's premises/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F +G)	(I) Reimburse- ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
		?	?	?	?	?	?	?	?	?	?	?
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal

?

(I) Reimbursement rate (%)

X

The reimbursement rate is defined in the work programme and cannot be modified.

For research and innovation actions, the reimbursement rate is up to 100%.

For innovation actions, the reimbursement rate is up to 70%; however non-profit organisations may receive up to 100%.

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

Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub- contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of inkind contributions not used on the beneficiary's premises/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F +G)	(I) Reimburse- ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
		?	?	?	?	?	?	?	?	?	?	?
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0

3 - Budget for the proposal



(J) Max. grant/€ (=H * I)



Calculated automatically based on the amounts you entered.

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

Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub- contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of inkind contributions not used on the beneficiary's premises/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F +G)	(I) Reimburse- ment rate (%)	(J) Max. grant / € (=H*I)	(K) Requested grant / €
		?	?	?	?	?	?	?	?	?	?	?
AGENZIA PER LA P	IT	0	0	0	0	0	0	0	0	100	0	0
Total		0	0	0	0	0	0	0	0		0	0



European Commission - Research - Participants
Proposal Submission Forms
 Directorate-General for Research and Innovation

Proposal ID	Acronym
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4 - Ethics issues table

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



Proposal ID	Acronym	
6. NON-EU COUNTRIES		Page
Does your research involve non-EU countries?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Do you plan to use local resources (e.g. animal and/or human tissue samples, genetic material, live animals, human remains, materials of historical value, endangered fauna or flora samples, etc.)?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Do you plan to import any material - including personal data - from non-EU countries into the EU? If you consider importing data, please also complete the section "Protection of Personal Data" [Box 4].	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Do you plan to export any material - including personal data - from the EU to non-EU countries? If you consider exporting data, please also complete the section "Protection of Personal Data" [Box 4].	<input type="radio"/> Yes <input checked="" type="radio"/> No	
If your research involves low and/or lower middle income countries , are benefits-sharing measures foreseen?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Could the situation in the country put the individuals taking part in the research at risk?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
7. ENVIRONMENT PROTECTION <small>in Directive 2001/18/EC - in Directive 2004/41/EC - in Regulation EC No 1831/2003 - in Directive 2009/65/EC - in Council Directive 92/43/EEC - in Council Directive 2000/60/EC - in Council Regulation EC No 338/2003</small>		Page
Does your research involve the use of elements that may cause harm to the environment, to animals or plants?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Does your research deal with endangered fauna and/or flora and/or protected areas?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Does your research involve the use of elements that may cause harm to humans, including research staff?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
8. DUAL USE <small>XII</small>		Page
Does your research have the potential for military applications?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
9. MISUSE		Page
Does your research have the potential for malevolent/criminal/terrorist abuse?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
10. OTHER ETHICS ISSUES		Page
Are there any other ethics issues that should be taken into consideration? Please specify		

Scrivere la parte B

Sections

1: Excellence

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

2. Impact

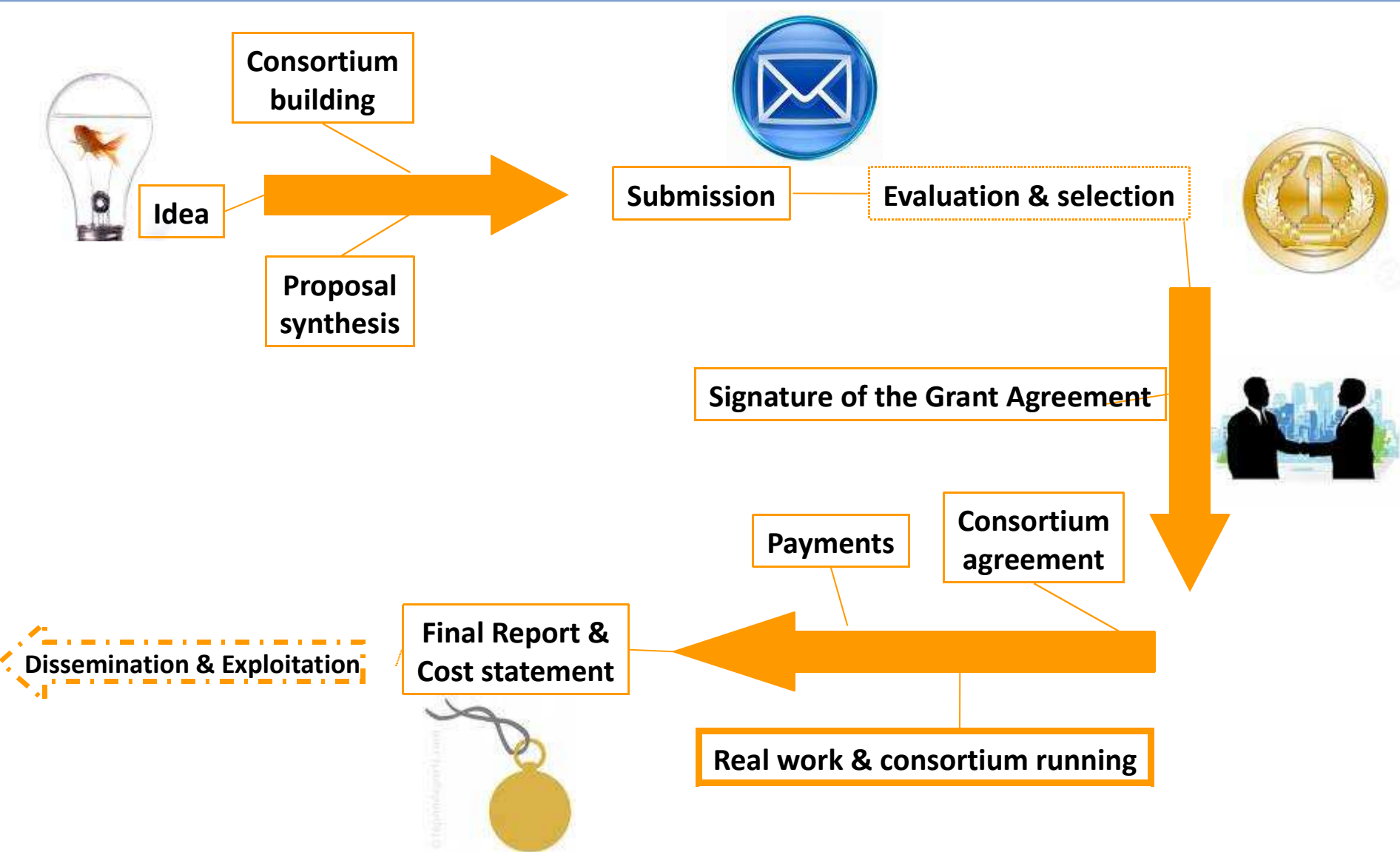
- 2.1 Expected impacts
- 2.2 Misure to maximise impact
 - Dissemination and exploitation of results
 - Communication activities

3. Implementation

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

4-5

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



STARTING

Your **IDEA** must be innovative

Patent databases

ex. <http://it.espacenet.com>

IPR helpdesk

www.ipr-helpdesk.org

Previously funded EU projects

http://cordis.europa.eu/projects/home_it.html

IEE Project database

<http://ec.europa.eu/energy/intelligent/projects/>

Start early
Start NOW !



Outline idea

Describe 1 page the following

- Goal
- Target group
- Major steps
- Intended consortium

Make sure you know the current (market) situation and your starting point



Brainstorming your Idea

Internal real check:

- What can I OFFER to a European project?
- Should I discuss the idea with the NCP/EC?
- Do I have the necessary time to prepare the proposal?
- Is the organisation supporting me?

Discuss the idea with the potential partners.

External real check:

Consult market actors, check their understanding and interest.



BEFORE INVESTING YOUR TIME!!!!

Fitting H2020



Excellence

1.1 Objectives

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

Specific Objectives - SMART



- ❖ **An inventory of novel fully characterized recombinant FAEs and GEs:**
 - ✓ 50 novel esterases from fungi
 - ✓ 500 novel esterases from bacteria
 - ✓ 25 rationally designed mutants
 - ✓ 20 best directed evolved mutants
- ❖ **Optimized biocatalysts based on FAEs and GEs** for production of the aforementioned biologically active compounds in the rigors of the industrial environment, exhibiting:
 - ✓ higher operational stability: **recyclability for at least ten fold cycles**
 - ✓ higher thermo-resistance and resistance to solvents: **at least 3-fold increased half-life at 50°C and at least 3-fold increased half-life in the detergentless microemulsion solvents** (hexane, n- and t-butanol).
 - ✓ higher yield: **up to the theoretical yield of 100%** for phenolic fatty esters and **80%** for phenolic sugar esters
 - ✓ higher productivity: **up to 1 g/l/h** productivity for the synthesis of alkyl hydroxycinnamates and **0.5 g/l/h** for the synthesis of sugar hydroxycinnamates.
- ❖ **The six main targeted biological active compounds** -prenyl ferulate, prenyl caffeate, 5-O-(trans-feruloyl)-arabinofuranose, glyceryl ferulate, benzyl D-glucuronate and prenyl-D-glucuronate- **fully characterized for their antioxidant activity and exhibiting an increase of 1.5-2 fold of the antioxidant activity and an improvement of hydrophilicity/hydrophobicity:**
As calculated by applying the conductor-like screening with segment activity coefficient (COSMO-SAC) model to predict octanol–water partition coefficients (Redmill, 2012), it is expected that -O-(trans-feruloyl)-arabinofuranose is 55-fold more hydrophilic than ferulic acid, prenyl D glucuronate 63-fold more hydrophilic than prenyl alcohol, benzyl D-glucuronate 65-fold more hydrophilic than benzyl alcohol, prenyl ferulate 123-fold more hydrophobic than ferulic acid, 1-glyceryl ferulate 21 fold more hydrophilic than ferulic acid, prenyl caffeate 123-fold more hydrophobic than caffeic acid.
- ❖ **A library of 60 novel compounds belonging to the classes of phenolic fatty esters and phenolic sugar esters fully characterized for their antioxidant activity**
- ❖ **Schemes of reactions for biotechnological production of these compounds based on FAEs and GEs, characterized by**
 - ✓ lower temperature (50-60°C) than that of the chemical process (160 °C)
 - ✓ fewer steps (one step) than the chemical process

Example

The project [REDACTED] will pursue two main goals:

- A. New renewable energy technology: develop a new renewable energy technology from the current TRL 3 ("experimental proof of concept") to TRL 6 ("technology demonstrated in relevant environment")¹ on a small-scale (50kW rated power), achieving the breakthrough result of 6 months of fully autonomous and continuous system operation. The technology involves an innovative drone, tethered to a ground station, to convert wind energy into electricity, see Section 1.3 for details. This new concept arises from the cross-fertilisation of airborne wind energy^{2,3} with drone technologies⁴, particularly multi-copters UAVs.
- B. New knowledge: exploit the developed knowledge and collected data to validate experimentally for the first time the fundamentals of airborne wind energy, and to develop a roadmap to scale-up and commercialize the technology (single units of about 1MW rated power, arranged in farms for utility-scale generation). The roadmap will cover technical development goals, grid integration aspects, regulatory and certification aspects, safety aspects, social and environmental impact assessment, and policy recommendations.

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

Objective A.:

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

- aerodynamic efficiency (lift coefficient over drag coefficient) greater than 15 (untethered) and lift coefficient greater than 1 at the nominal angle of attack;
- wing loading (total mass over effective area, including all on-board components like batteries, propellers etc.) no greater than 8 kg/m²;
- maximum continuous load (total force acting on the aircraft) greater than 6000 N;
- effective area (useful area for the generation of aerodynamic lift) of 2.5 m²;
- on-board energy storage to carry out at least 2 complete take-off and landing cycles;
- tether attach/detach mechanism rated for tether loads greater than 8000 N;

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

- winch system (drum, tether spooling system, damping elements) hosting 300 m of 3-mm-diameter tether made of UHMWPE⁵, and mechanics (frame, winch, gearing, pulleys) capable to withstand at least 15000 N of tether load and to operate with tether azimuth spanning 360 deg and tether elevation from 0 deg to 90 deg;
- electric machine (motor/generator) able to reel-in/out the tether at speed greater than 600 rad/s with torque greater than 80 Nm (machine side);
- electrical backend (power electronics, protection devices, energy storage, grid connection) with possibility of both grid connection of the system, and stand-alone operation on batteries.

Example

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

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

- a1) Treatment of high nitrogen and phosphate content biowaste (control index 21 kg N/day, control index 3 kg P/day)
- a2) Creation of a CO₂ sink for the carbon credit market (control index 190 kg/h insufflated)
- a3) Production of biomass pellets and fertilizer from organic residues of the biodigester (control index 300 kg/day)

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 CO₂ emissions that are negative externalities of human activities using them as feeding for macroalgae cultivation with the aim to optimize the life-cycle analysis (LCA) of the overall process from wheel to wheel. Considering the above reasons macroalgae could resolve the problems related to the excessive amount of nitrogen in wastewater treatment plants.

a2) ***Creation of a CO₂ sink for the carbon credit market***
The amount of CO₂ 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 CO₂ and NO_x emissions in the air from the boiler;

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

Example

1.1.6 Scientific and Technological Objectives

The objectives of [REDACTED] are:

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

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

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

<i>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</i>	S&T Objectives of the RICHES proposal
<u>Context of the research indicated in the EC Work Programme:</u>	<p>The research proposed by [REDACTED] is based on two major assumptions:</p> <ol style="list-style-type: none">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 therefore explore a wide range of CH practices from this perspective, in order to identify trends, opportunities and threats for cultural institutions; gather and explore best practices with users; highlight strengths and weaknesses; and distil the results into recommendations

Example

Example

TECHNICAL KNOWLEDGE OBJECTIVES

Gap: lack of knowledge about successful practices of heritage-led rural regeneration and of tools making successful practices and solutions available and replicable.

T1 *Increase knowledge* in heritage-led rural regeneration strategies by deep and systematic mapping and analysis of heritage-led rural regeneration models gathered from the 14 Role Models.

Related Output: At least 20 Practices mapped and described in the RURITAGE Practices Repository (WP1);
At least 10 scientific papers

T2 *Develop, deploy and co* Systemic Innovation Area

Related Output: 1 Inventory of Lessons 1 strategies, new products Cultural and Natural Her

T3 *Create an innovative an* and natural features to la

Related Output: RURITAGE Atlas, a W people interacting with la

T4 *Apply an integral infor* guaranteeing an integra Decision Support System

Related Output: A RURITAGE Resource Atlas, My Cult-Rural 1 strategies in 6 Replicator

T5 *Implement Large-scale* of the heritage-led rural r

Related Output: 6 Heritage-led regenerati
6 large scale demonstrati

T6 *Monitor the performanc* quantifying the impact improvement, socio-econ

Related Output: RURITAGE robust mon
Indicators (KPIs); 1 My c

Gaps: lack of the financial resou
of rural communities in the decis

S1 *Foster continuous mutu* detailed knowledge tran relevant local stakeholder

Related Output: Community-based Herita
28 mentoring visits from

REPLICATION AND EXPLOITATION

Gaps: lack of awareness on exploitation possibilities in CNH sector in rural areas; lack of roadmaps for the long-term sustainability of heritage-led regeneration strategies.

R1 *Replicate and upscale heritage-led rural regeneration strategies and approaches* to other regions in Europe and beyond.

Related Output: 1 call for 6 additional Replicators in EU and 3 in ENP Areas [3] (WP6); 1 RURITAGE Replication ToolBox (WP5) made available on the RURITAGE Resources Ecosystem (WP5); 3 RMs out of 14 from Latin America, 2 Rs from non-EU countries.

R2 *Address and overcome potential regulatory and legislative barriers* and contribute to the optimisation of policy and regulatory frameworks, providing policy recommendations at regional, EU and global level.

Related Output: 1 Workshop in Brussels with Regions (WP7); 1 Board of Regions involving at least 30 EU Regions; 1 Information session for UNESCO Member States at UNESCO HQs (WP7); 2-3 accurate trainings for representatives of interested governments at their countries or regions (WP7); 3 knowledge transfer events for 'training of trainers' in interested Countries (WP7); 3 relevant documents: i) Policy recommendations for integrating CNH within RIS3, ii) White Paper on 'CNH as a driver for sustainable development in EU and beyond' (WP6), iii) European Vision Paper for urban and rural regeneration through CNH (WP7).

R3 *Make RURITAGE results readily exploitable and accessible to EU-wide and global interested stakeholders* as competent authorities, planners, enterprises and civil society, following the RURITAGE Dissemination and communication and the exploitation strategies.

Related Output: 1 RURITAGE Resources Ecosystem (WP5) integrating RURITAGE Atlas, RURITAGE Replication ToolBox, My Cult-Rural Toolkit and the Monitoring system; 1 website (WP7); 1 RURITAGE Brand (WP6).

R4 *Communicate and disseminate the outcomes of the project and position EU as World leader* in heritage-led rural regeneration strategies.

Related Output: at least 6 activities within thematic UN and UNESCO International days, such as i.e. (i) World Day for Cultural Diversity for Dialogue and Development; (ii) International Day for Disaster Reduction; (iii) World Environment Day; special sessions at International conferences attended by a large group of the RMs and Rs; 1 RURITAGE website, brand, logo and visual identity; 6 Storytelling videos; at least 6 radio/tv proposals; 6 local communication Plans (1 for each Replicator); 4 social media account (namely Facebook, Twitter, Instagram and LinkedIn); 1 initial media campaign; 4 annual newsletters (in English and translated in local languages at the Replicators Countries); 1 photo context and 1 RURITAGE troubadour

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.

1.2 Relation to the work programme

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



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

Example

1.2. Relation to the work programme

The proposal directly addresses the requirements of the work programme “Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy”, call “Bio-based innovation for sustainable goods and services - supporting the development of a European bioeconomy” and topic “BB-08-2017: Strategies for improving the bioeconomy knowledge of the general public”. More specifically [redacted] masters:

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

Example

1.2 Relation to the work programme

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

NMPB 34 Specific Challenge:

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

ResponsiveNano's approach:

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

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

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

Excellence

1.3 Concept and methodology

(a) Concept

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

Overall concept

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

ECOCHAMPS project

<http://www.ecochamps.eu/project/approach/>

Flex5Gware project

<http://www.flex5gware.eu/overview>

Example

Interdisciplinary or transdisciplinary approaches

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

Multi-actor approach

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

- knowledge exchange activities and a clear role for the different actors in the work
- cross-fertilisation of ideas between actors, co-creation and generation of co-ownership for eventual results

Positioning of the project

Fundamental
research

Feasibility

Validation
(lab scale)

Demonstration
(large scale)

Commercialisation

Research

Development

Innovation









Exploitation

Research and innovation activities which will be linked with the project

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

Example

Research and innovation activities which will be linked with the project

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

Example

Table: preliminary list of project to be reviewed and stocktaken

Project name	Programme	Dates	Relevant outputs linked to SISCODE
Nano2All	H2020	10-2015 to 03-2019	Coordinated by SPI, this H2020 project is contributing to establish RRI policy and governance on nanotechnologies via inclusive approaches and a dedicated Mobilisation and Mutual Learning (MML) action. SISCODE will build synergies with the project.
HEIRRI	H2020	09-2015 to 08-2018	The project develops a stocktaking inventory constituted by a State of the Art Review and a Database. The project also involves RRI pilot testing through the integration of HEIRRI's training programmes and materials. Ecsite, as partner of HEIRRI, will facilitate interactions. In addition, a member of the SISCODE scientific committee is member of the HEIRRI scientific committee.
SPARKS	H2020	07-2015 to 06-2018	Coordinated by Ecsite, this H2020 project outreach actions and involved stakeholders could be used for the SISCODE exploitation strategy (WP6).
PROSO	H2020	01-2016 to 02-2018	The PROSO project is developing a policy guide for promoting governance for the advancement of societal engagement under RRI. The results of the project can support and complement the design approach for STI policy making (WP4).
PE2020	H2020	02-2014 to 01-2017	SISCODE could build on the innovative PE tools and instruments for dynamic governance in the field of Science in Society developed within the project. PE2020 also includes pilot initiatives of societal impacts and stakeholder involvement which could become interesting co-creation case studies or biographies.
RRI Tools	FP7	2014-01 to 2016-12	The project analyses the tools developed under the different classifications (such as PE, ethics and gender balance, among others) to implement a comprehensive toolkit. SISCODE will build on this project for the development of the digital learning hub. UCL, Ciência Viva and Ecsite as partners in the RRI-tools consortium will facilitate interactions.
GREAT	FP7	02-2013 to 01-2016	The project has developed an empirically based and theoretical model of the role of RRI governance. This could be of use for SISCODE on building an evidence-based framework meant to integrate co-creation with organisational change mechanisms at the different levels of the STI governance system. A member of SISCODE's scientific committee will facilitate connection as a member of the GREAT project.
PROGRESS	FP7	02-2013 to 01-2016	The project has built connections with a group of relevant stakeholders across Europe and beyond, including policy makers, policy advisors, funders, industry and non-governmental organizations. This could be of use for the SISCODE map of stakeholders and for exploitation actions (WP6).

Example

Excellence

1.3 Concept and methodology

(b) Methodology

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

Methodology

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

Example

1.3.3 Overall project methodology

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

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

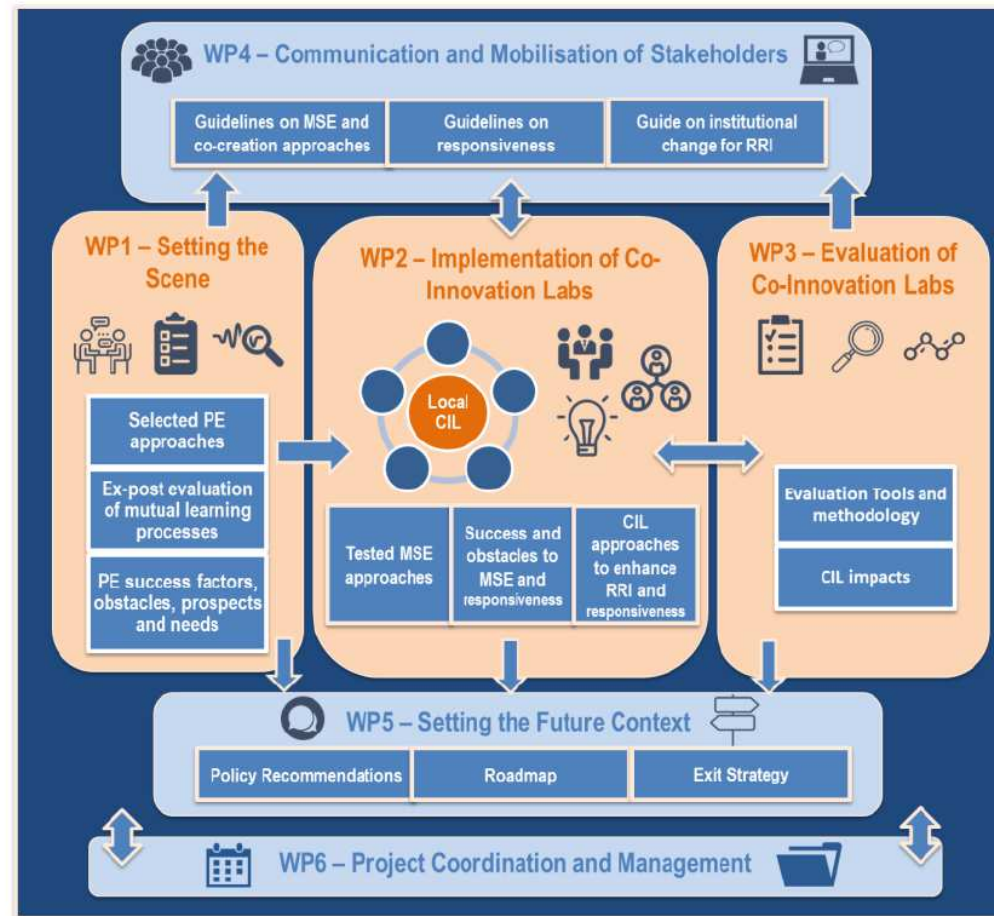


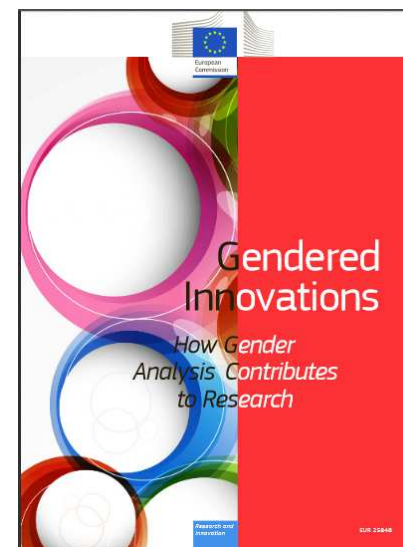
Figure 2. Overall project methodology

Gender dimension

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

For guidance on methods of sex / gender analysis and the issues to be taken into account, please refer to:

http://ec.europa.eu/research/science-society/gendered-innovations/index_en.cfm



Why Gendered Innovations?

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

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

We can't afford to get the research wrong.

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.
- Describe the innovation potential (**e.g. ground-breaking objectives, novel concepts and approaches, new products, services or business and organisational models**) which the proposal represents. Where relevant, refer to products and services already available on the market. Please refer to the results of any patent search carried out.

Beyond the state-of-the-art

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

1.2.2. Progress beyond the state of the art

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

Prima in tabella,
poi descritti

1.2.2 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.

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 meet cost targets it may be necessary to incorporate some degree of wafer thinning or lift off and

Example

Per tecnologia

impact

Impact

2.1 Expected impacts

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

Expected impact mentioned in the topic

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

Example

2. Impact

2.1. Expected impacts

Expected Impact: Citizens will become aware of the importance and possibilities/impact that research and innovation in the bioeconomy can offer for them			
Stakeholders	Expected impact on stakeholders	Outcomes from	Measurement
CIVIL SOCIETY <ul style="list-style-type: none"> General public School students University students Teachers and Educational institutions Citizens associations NGOs and CSOs active in the bioeconomy field 	<ul style="list-style-type: none"> Awareness of the economic, social, environmental benefits R&I in the bioeconomy may offer to them Interest of the students is stimulated both in the environmental and the social/economic aspects of bioeconomy Improved awareness on HOW information is communicated to students Aware of their importance for bioeconomy development while acting as a bridge between R&I and civil society More involved in the communication of scientific research work to the general public (proactively or as information repositories) 	<ul style="list-style-type: none"> Citizens are aware of the benefits R&I in the bioeconomy can offer to them (economic, social, environmental benefits) Citizens are aware of the multiple fields of application of BBPs and their diversification possibilities (e.g. through Exhibitions of bio-based products in everyday life) More BBP-confident attitude as private and/or public end-users More interested attitude towards Research/scientific careers More environmentally responsible consumer's behaviours Increase the awareness and interest of students of primary and secondary schools through a non-scientific approach showing "hands-on" the multiple fields of applications of bioeconomy When dealing with the bioeconomy, in primary and secondary schools a non-scientific approach is adopted to make the pupils understand the multiple fields of applications and aftermath of the bioeconomy NGOs and CSOs and Science Parks/museums actively contribute in project activities NGOs and CSOs and Science Parks/museums active in the bioeconomy field actively contribute in disseminating bioeconomy-related research work results (participatory approach) 	<ul style="list-style-type: none"> Cross-cutting measurements aimed at measuring progress in stakeholders engagement and awareness of bioeconomy and BBPs Number/% of invited NGOs/CSOs, Science Parks/museums actively contributing in project activities Number/% of invited NGOs/CSOs actively contribute in disseminating bioeconomy related scientific research work Interviews to participants to the events Letters of Intent
Cross-cutting outcome		Measurement	
<ul style="list-style-type: none"> Definition of the methodology for future national case studies on national bioeconomy maturity Definition of social, economic and political frameworks fostering the bioeconomy in target countries Increase the dialogue and participation of the civil society in the design of policies and products in bioeconomy 		<ul style="list-style-type: none"> Guidelines for future replication of national "Bio-readiness" report (D2.2) "Bio-readiness" report (D2.1) 	

Example

Expected Impact	Objectives	BIOVoices Approach	Outcomes	Deliverables	Performance indicators
To create networks of specific target groups in order to raise citizens' awareness and understanding of bio-based products	<p>OBJ2: Design and promote a MML (Mobilisation and Mutual Learning) platform, engaging different stakeholders at European, National and Local level, including a plurality of perspectives, experiences interests, aspirations and knowledge.</p> <p>OBJ4: Through the BIOVoices multi-stakeholders platform, design and implement an action plan fostering the awareness of the large public about benefits and potential social, economic and environmental impact of Bioeconomy and widening the diffusion of BBP (Bio-based products)</p>	T3.1 and T3.2 will create a Database of stakeholders (quadruple helix model) to be leveraged depending on the project's activities. T3.3 will initiate the BIOVoices Community and Task 3.4 will create the BIOVoices methodological approach for MML to foster bio-based value chains. The activities in WP5 will create multi stakeholders networks at European, National and Local/Regional toward the creation of the BIOVoices Action Plan (Task 5.4) to raise citizen's awareness/understanding and foster collaboration among stakeholders.	<ul style="list-style-type: none"> - Stakeholders identification and clustering to target them with specific actions - Innovative Methodology to foster dialogue and co-creation among stakeholders - BIOVoices Action Plan to raise citizen's awareness/understanding - Strategies for large public engagement/awareness creation (live and online co-creation events, social media strategy, BIOVoices app) at European, National and Local/Regional level 	<p>D3.1 Stakeholders' classification (M3)</p> <p>D3.2 Stakeholders' database (M36)</p> <p>D3.4 BIOVoices methodological approach for Mobilisation and Mutual Learning (M14)</p> <p>D4.1 BIOVoices multi-stakeholder on line social platform (M6, M33)</p> <p>D4.2 Population of the BIOVoices multi-stakeholder on line platform with contents Report (M11, M36)</p> <p>D4.3 Animation of the multi-stakeholders Platform Report (M24, M36)</p> <p>D5.2 Final report on European, National and Regional MML events (M36)</p> <p>D5.3 BIOVoices Action Plan and stakeholders-oriented policy briefs (M35)</p> <p>D4.4 The BIOVoices app (M18)</p> <p>D4.5 Social Media innovative engagement and animation Report (M24, M36)</p> <p>D6.1 Impact, Communication and Dissemination Plan (M4)</p> <p>D6.4 Report on the dissemination and exploitation activities and results (M12, M24, M36)</p> <p>D6.2 BIOVoices Website (M3)</p> <p>D6.3 Promotional Kit (M2, M36)</p>	<p>Number of Stakeholder (T3.2)</p> <p>Number of live Events and co-creation workshops organized in WP3 and Wp5 and participants at European, National and Local/Regional. Total of at least 3000 stakeholders.</p> <p>Number of online events and participants</p> <p>Number of citizens reached by the social media activities and BIOVoices app in WP4</p> <p>Number of citizens involved in communication activities in WP6</p>

Example

Expected impact mentioned in the work programme

Expected Impact	Open-UP Objectives and Outcomes	Performance indicators
The knowledge coalitions and the adoption of a responsible research and innovation approach will facilitate the uptake of socially acceptable innovative solutions.	The OPEN-UP project is setting-up a Mobilisation and Mutual Learning Platform to support the project research and organise MML co-creation events. The workshop methodology includes using game based and team creativity techniques. RRI and a gender innovation analysis approach will be integrated in the design and implementation of the MML workshops. Each MML workshop will have a specific objective and aims at maximising the research outcomes - both of the previous and the next phases of the project. (WP2-5) The OPEN-UP methodology is designed within a context that offers a wide number of societal challenges to be tackled, involving all the Quadruple Helix actors and offering some existing knowledge networks to build on and learn from complex urban environments.	6 MML workshops and at least 26 live events will be facilitated throughout the project, with participants at Local/Regional, National, European and International level. A total of at least 3.000 stakeholders will be involved throughout the project workshops and pilots. The publication of an online library of case studies. Co-creation and up-take of at least 20 socially acceptable innovative solutions to address societal challenges through open science.
The topic will provide an Open Science pilot which	The OPEN-UP project will validate the co-creation methodology through conducting a series of multi-stakeholder co-creation cases (OPEN-UP pilots) in European and International cities, validating the methodology against:	12 pilots successfully organised and executed in 10 countries (EU and International), with QH stakeholders from all sectors participates in each pilot.

2.1 Expected impacts

Expected impacts in SwafS-13-2017 topic	<i>This action aims at developing a better understanding of co-creation processes and outcomes under various cultural, societal and regulatory backgrounds. It will allow for better-targeted policy support in the future.</i>	Type of impact ⁹²			How we are reaching it
		Instrumental	Conceptual	Capacity building	
Short-term impacts of the project	Better understanding of co-creation processes and co-production outcomes in diverse European contexts.		X		This will be achieved by triangulating analytical and action research results from stocktaking previous knowledge on co-creation in RRI, individualising and comparing cases and biographies and conducting experiments in real-life contexts across Europe.
	Guidance to cope with practical and organisational barriers; constraints and resistance to change preventing the concrete implementation of co-creation in RRI solutions and policies.	X		X	In the form of case studies, biographies, best practices from real life experimentations, recommendations, methodologies and tools, resulting from the project's direct work and knowledge exchange with stakeholders, to test the effectiveness of design methodologies for implementable co-creation.
	Better understanding of local factors, circumstances and conditions – including institutional structural conditions – influencing the successful deployment, from ideation to implementation of co-creation processes and tools in the RRI context.	X	X		This will be done through the development of context-based models of co-creation ecosystems in order to: <ul style="list-style-type: none"> - provide guidance for the development of co-creation ecosystems based on the different institutional, cultural and regulatory frameworks observed through cases, biographies and real life experimentations; - make sense of already existing and new RRI processes and tools, taking into account local factors and conditions; - better understand the degree of transferability and scalability of effective RRI processes and policies; - provide guidance in order to adapt and reconfigure solutions

Example

⁹² Following the impact toolkit of the ESRC: <http://www.esrc.ac.uk/research-impact-toolkit/what-is-impact/> the impact of research be it academic, economic and social – is classified as follows:

- **Instrumental:** influencing the development of policy, practice or service provision, shaping legislation, altering behaviour;
- **Conceptual:** contributing to the understanding of policy issues, reframing debates;
- **Capacity building:** technical and personal skill development.

		Instrumental	Conceptual	Capacity building	
Long-term impacts of the project	Diffuse the culture of co-creation in research and innovation communities and in the industry, as a way of better integrating the voice of citizens and society in science and innovation.	X		X	This will be reached through: i) disseminating and mainstreaming good co-creation practices based on real life experimentations with design methodologies (by prototyping, testing and iteratively refining solutions towards their implementation); and ii) setting up an experiential learning framework for the innovation of policy making. Other project's outputs, such as the digital learning hub, the MOOC, the co-creation labs open days, the final conference, and the design for policy advocacy plan, will contribute to spreading awareness of and building capacities for co-creation.
	Bridge the gap between ideation and implementation in the co-creation of RRI policies and solutions.		X	X	This will be achieved through a strengthened culture of co-design and the use of prototypes as boundary objects enabling the alignment of diverse actors and stakeholders and the adaptation of solutions to diverse social, cultural and regulatory contexts.
	Improve the current approach to multi-level governance, primarily based on a top-down	X	X	X	The project will pursue a bi-directional exchange among levels, where local factors, conditions and solutions that work in specific

Any substantial impacts

Consider:

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

Less important of the impacts related to the topic

Economic Impact

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

Environmental Impact

Climate action includes:

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

Sustainable Development:

- development that meets the needs of the present without compromising the ability of future generations to meet their own needs within the planet's physical boundaries.

Sustainable development has economic, social and environmental dimensions.

3. Impact

3.1 Expected impacts listed in the work program

POLITICAL IMPACT

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:

- **Participation in Education & Training:** The OPTIBIOCAT has a very strong focus on PhD Education & Training and the academic partners are very keen to share and exchange ideas on best practice so as to improve what they do within their own institutions.
- **Networking on a European level:** As OPTIBIOCAT is a large network, it enables the partners to

Example

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 and 0.5 g/l/h for the synthesis of sugar hydroxycinnamates), thus further improving the cost efficiency.
- **Improving down-stream processes.** Formulation of optimized enzyme cocktails will be performed by achieving a 2-fold increase of enzyme conversion yield. Enzyme immobilization will improve enzyme recyclability delivering enzymes reusable up to 10 times and operational stability thus further improving

Example

Example

CPT/BIOPAT: 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 GE's 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

Example

Expected Impact	Stakeholders beneficiaries	Project outcomes
Scientific	<ul style="list-style-type: none"> All stakeholders Researchers, Teachers 	<ul style="list-style-type: none"> Methodology to foster collaboration and co-creation among stakeholders in the value chain of BBP Shorten the gap among R&I and the large public, through the identification of barriers/worries/obstacle and improved dialogue
Societal	<ul style="list-style-type: none"> General public Students Teachers and Educational institutions Citizens associations NGOs and CSOs active in the Bioeconomy field Policy Makers 	<ul style="list-style-type: none"> Fostering the awareness of the large public about benefits and potential social, economical and environmental impact and widening the diffusion of BBP Increase the quality, the relevance, the social acceptability and the sustainability of research and innovation outcomes in Bio-based domain Promote participative design of BBP by the consumers, to shape products closer to their expectations/aspirations
Environmental /Sustainability	<ul style="list-style-type: none"> All stakeholders 	<ul style="list-style-type: none"> Increase the awareness and Adoption of BBP and promote the circular economy among the citizens.
Political	<ul style="list-style-type: none"> Policy Makers, Public administrations, Local authorities 	<ul style="list-style-type: none"> Action Plan and Actionable knowledge (Policy briefs, guidelines and recommendations) Best practices to foster collaboration and co-creation among stakeholders in the value chain of BBP at European, National and Local/Regional level
Economical	<ul style="list-style-type: none"> PPB Business Community Policy Makers 	<ul style="list-style-type: none"> New business opportunities/new social innovation models Minimize the technology mismatches
Geographical Gender/ Cultural	<ul style="list-style-type: none"> Researchers Policy makers 	<ul style="list-style-type: none"> Reach a significant impact at European level thanks to the partners involved and their networks Design the Action Plan fostering citizen's awareness, taking into consideration the gender and cultural differences

Barriers/obstacles and conditions affecting impacts

- List and explanations

2.1.2 Barriers, obstacles and conditions affecting impacts

BIOVoices is a CSA and as such it is fully set on achieving measurable and immediate results within the duration of its implementation and considerable legacy to deepen its impact after the end of its operations.

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


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

Example

Impact

2.2 Measures to maximise impact (I)

a) Dissemination and exploitation of results

- Provide a draft '**plan for the dissemination and exploitation of the project's results**' 
Please note that such a draft plan is an admissibility condition, unless the work programme topic explicitly states that such a plan is not required.
- Show how the proposed measures will help to achieve the expected impact of the project.
- The plan, should be proportionate to the scale of the project, and should contain measures to be implemented both during and after the end of the project. For innovation actions, in particular, please describe a credible path to deliver these innovations to the market.

★ *plan for the dissemination and exploitation of the project's results*

- *Your plan for the dissemination and exploitation of the project's results is key to maximising their **impact**. This plan should describe, in a concrete and comprehensive manner, the **area** in which you expect to make an impact and **who** are the potential users of your results. Your plan should also describe **how** you intend to use the appropriate channels of dissemination and interaction with potential users.*
- *Consider the full range of potential users and uses, including research, commercial, investment, social, environmental, policy-making, setting standards, skills and educational training where relevant.*
- *Your plan should give due consideration to the possible **follow-up** of your project, once it is finished. Its exploitation could require additional investments, wider testing or scaling up. Its exploitation could also require other pre-conditions like regulation to be adapted, or value chains to adopt the results, or the public at large being receptive to your results.*

Impact

2.2 Measures to maximise impact (II)

- Include a business plan where relevant.
- As relevant, include information on how the participants will manage the research data generated and/or collected during the project, in particular addressing the following issues:
 - 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?
 - How will the costs for data curation and preservation be covered? please describe a credible path to deliver these innovations to the market.
- 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.

What is the dissemination?

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

Examples of dissemination actions:

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

What is the exploitation?

the use of results in further research activities other than those covered by the action concerned, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardization activities..

This latter can among others:

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

Exploitations Channels

Commercialisation channels

Assignment

Licence

Joint venture

Spin-off

Consultancy

Knowledge transfer channels

Publishing

Conferencing and networking

Consortium agreements

Personnel mobility

Standards

How to exploit the project results

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

Strategy for dissemination and exploitation of results

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

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

Suggestion: keep in mind!

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

a) Dissemination and exploitation of results

Example

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

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

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

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

Support the EU policies on the waste field.

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

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

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

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

Every result provide by the XxXXxX project

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

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

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

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

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

broader European and international context by defining: 1) **WHO**: target groups, considering their needs and interests, and the strategy as well as the means required to approach, involve and communicate to these target groups; 2) **HOW**: target conferences, journals, and other relevant events and media channels to be addressed; 3) **WHEN**: proper timing and level of intensity of all activities by establishing an efficient timetable for the foreseen actions. In the following we provide an outline of this dissemination strategy.

1) **WHO – RURITAGE Dissemination Target Audience**

A stakeholders and target groups analysis will be the first step to be taken and this will lead to the creation of tailored dissemination and communication actions. The target audiences will span across different levels, from local to national and European/International, including policy makers and public-sector institutions, academia and knowledge providers, business and service providers, civil society, citizens, schools, related EU and H2020 Projects. The dissemination plan will set and monitor quantitative targets and will be built to engage stakeholders and policy makers at 4 different level:

- **Local level**: rural communities will be the main users/target of the heritage led rural regeneration plans and need to be actively engaged within Rural Heritage Hubs activities both within the Rs and the RMs. To ensure that specific peculiarities of rural areas (e.g. average age of residents' people, low internet coverage, etc.) will be considered and that a wide range of stakeholders with different socio demographic characteristic will be involved, RURITAGE will define proper communication and outreach activities including the use of local dissemination channels in local language (TV, radio, local newspaper, etc.) and using different innovative engagement techniques (open call for photo-context, local event and festival, etc.)

- **Regional level**: Regions are a crucial target of project activities. Supporting policy-makers in the inclusion of CNH within regional Smart Specialization Strategies is one of the objectives of the project. The policy recommendations which will be produced within RURITAGE will be indeed disseminated through regional networks (i.e. ERRIN will be contacted during project implementation) and a dedicated workshop in Brussels will be organized by ICLEI. The dedicated Board of Regions, which includes 27 regions who already demonstrated their interest through the LoS, will be invited to such workshop and delegation of regional office in Brussels will be also contacted and invited.

- **EU level**: Cooperation at European level will be at the core of the dissemination strategy. Networking with relevant projects and initiatives will be ensured by APRE and will be put in place from the very beginning of the project, especially given that **2018** will be the **European year of Cultural Heritage**. In this view, a **Memorandum of understanding** has already been signed with the Coordinator of ROCK project, funded under the same call, and joint actions and activities will be foreseen. One of those includes the elaboration of a European Vision Paper for Rural and Urban regeneration through cultural heritage, in conjunction with the ROCK project funded under the same topic.

Example

2) HOW – RURITAGE Dissemination Activities

The involvement within the consortium of 3 relevant European and international networks such as APRE, ICLEI, and UNESCO, the experience of the University of Plymouth in popular media communication, and the involvement of UNIBO and ICLEI within the ROCK project will ensure the success of the dissemination plan, contributing to maximize the impact of the project. To ensure a wide circulation, the following networks have already been identified by project partners who will be in charge of spreading the RURITAGE paradigm: Alliance for Disaster Risk Reduction and Resilience in the Education Sector, UNESCO Global Geoparks, UNESCO Global Geoparks Network, Man and the Biosphere Programme (MAB), UNESCO Future Earth, UNESCO Management of Social Transformations Programme, UNESCO Partnership on Environment and Disaster Risk Reduction (PEDRR), UNESCO's Earth Science Education Initiative in Africa (ESEIA), UNESCO World Heritage List, Lists and networks associated to Intangible Cultural Heritage, European Covenant of Mayors, Compact of Mayors, Economic Value of Cultural Heritage (EVoCH). These networks would allow to reach at least 1000 organizations. Furthermore, the following activities have been foreseen:

- Publication of **technical and research papers** in prestigious scientific journals (*e.g. Journal of Cultural Heritage 1296-2074, International Journal of Cultural Heritage 1558-3058, Landscape and urban planning 0169-2046, Conservation Science in Cultural Heritage 1974-4951, Environment and Behaviour 0013-9165, Ecology and Society 1708-3087 International Journal of Heritage and Sustainable Development 1647-4112, etc.*). RURITAGE will develop a publication policy, with a corporate publication profile so that partners publish “on behalf of RURITAGE”. The highest impact open-access journals will be identified and a strategy to target them specifically will be developed. All the publications will be collected in a dedicated space within the RURITAGE website, in order that interested people (researchers, end-users at large) can have the scientific papers at a glance.
- **Presentation of RURITAGE results at conferences, seminars, workshops**, some of which already identified, both through speeches or posters. Within the initial dissemination plan, partners will contribute to create a list of

Example

Expected results/indicators (WHAT)

Table 3 OPEN-UP results and indicators

Tools & channels	Metrics method	Expected results
Website	Number of visits, time spent on the website and returning visitors; Number of countries	At least 500 visits per month. More than 40% of visitors spending 1 minutes or more in the website More than 40% of returning visitors in different countries
Flyers	Number of items distributed vs number of contacts from stakeholders	At least 1500 flyers distributed At least 100 contacts showing interest in receiving detailed info
Social media	Number of members and engagement	At least 100 members on LinkedIn At least 50 members on YouTube channel At least 100 followers on Twitter More than 40% of posts are shared
Press releases	Clipping/publications coverage	At least 10 publications
Conferences	Number of external events we expect to participate Number of contacts obtained per event	At least 5 events participation per partner 100 potential contacts for follow up actions
Newsletter	Newsletter dispatched	6 newsletter dispatched to at least 200 contacts each
Promotional videos	Number of visualizations and shares	500 views and 100 shares
Events/ meetings/ workshops/	Number of invited participants Number of non-invited participants Number of new contacts collected	80% of invites participate 30% of non-invites on total participants 50 new contacts per event

Example

Area of impact (WHERE)

Considering the range of possible stakeholders, it is plausible that the project's contact list, and so the area of impact, will progressively broaden and potentially be self-sustaining. At first, OPEN-UP dissemination coverage will start mostly from the Consortium area, **through partners' networks, contacts and clients**. The initial landscape will be sufficiently widen to create a solid audience basis. Estonia, Germany, Israel, Italy, Slovakia, Denmark, Hungary, Lithuania, UK, Portugal regions/countries will thus be the first addressees of the dissemination and exploitation strategy. At a later stage, online and electronic dissemination will progressively provide international visibility to the project. Also, personal interactions through events/meetings will increase the coverage at national, local and sectorial levels. It is foreseen to raise the impact area of OPEN-UP by augmenting the contact list by at least 30% within the first year of the project.

Example

Indicative timeline (WHEN)

Activities will be performed depending on the project stage and needs. At the proposal preparation phase, **the first year of activities is provided**, since a 12-months period is considered the most appropriate for providing reliable timeline information. For ease of reference communication and dissemination activities are divided into online and electronic dissemination tools (website, social media, press release, newsletter, promotional videos) and personal interaction activities (flyers, posters/roll-up, events/ meetings, workshops).

Dissemination timeline (first year):

Online and electronic dissemination tools	Indicative timeline											
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Web Platform				X								
Social media						X						
Press release				X								
Newsletter						X						
Promotional videos										X		
Personal interaction activities	Indicative timeline											
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Flyers						X						
Stationery				X								
Posters/Roll up						X						
Events/ meetings	<i>To be defined ad hoc</i>											
Workshops	<i>To be defined ad hoc</i>											
Conferences	<i>To be defined ad hoc</i>											

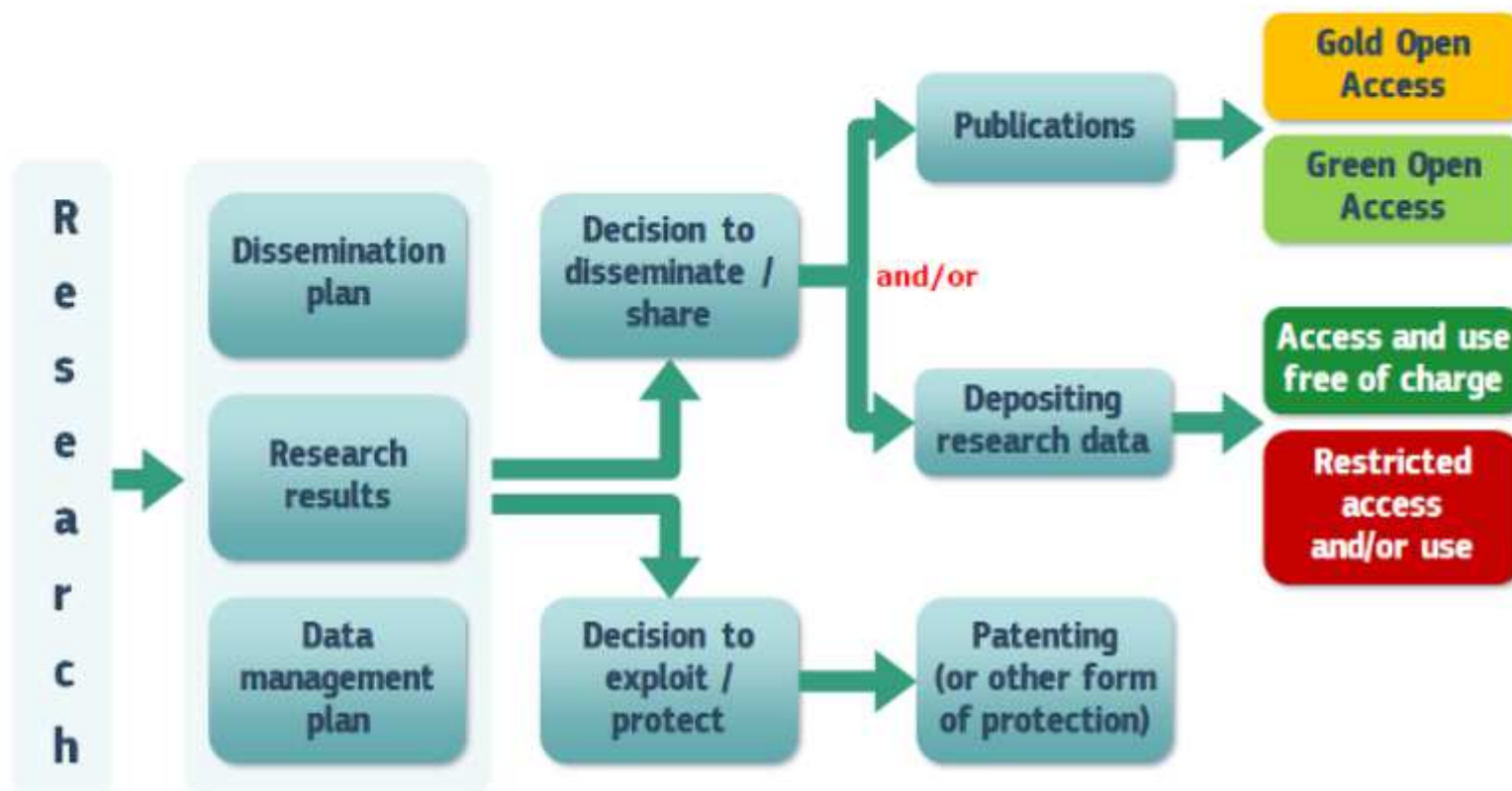
Example

Table 2.3. RURITAGE main Exploitable results

RURITAGE Systemic Innovation Areas (SIAs)		Type:	Knowledge	Key partners:	All
RURITAGE establishes a novel heritage-led rural regeneration paradigm through on the identification of 6 SIAs (<i>Pilgrimage, Sustainable Local Food Production, Migration, Art and festivals, Resilience, Integrated Landscape management</i>). This integrated, multi-stakeholders and transdisciplinary approach and the provision of tools and methods for replication (Replication ToolBox, RURITAGE Resources Ecosystem) guarantee its high replication potential and candidate RURITAGE approach to become a standardized procedure to be adopted for heritage-led regeneration in rural areas. Public and private organizations will access the generated knowledge for free on the RURITAGE Resources Ecosystem, but personalized advisory services will be offered on a consultancy basis either from some project partners (UNIBO, CE, POLITO, TECNALIA, CAR, SAVONIA OUS, NMBU) or from a spin-off promoted by UNIBO in collaboration with other project partners. The possibility to integrate the tools and methods for replication with the branding and Atlas (see below) in one service will be also considered.					
Impact indicators:	Number of access to the RURITAGE Resources Ecosystem; number of further Replicators				
Target:	200 new access to the platform during 5 years after the end of the project; 20 further Replicators beyond the ones involved in the project				
Key stakeholders/users:	target	Further Replicators, CNH and tourism operators, policy makers, Rural communities			

Open access

- Open access publishing (also called '**gold**' open access) means that an article is immediately provided in open access mode by the scientific publisher. The associated costs are usually shifted away from readers, and instead (for example) to the university or research institute to which the researcher is affiliated, or to the funding agency supporting the research.
- Self-archiving (also called '**green**' open access) means that the published article or the final peer-reviewed manuscript is archived by the researcher - or a representative - in an online repository before, after or alongside its publication. Access to this article is often - but not necessarily - delayed ('embargo period'), as some scientific publishers may wish to recoup their investment by selling subscriptions and charging pay-per-download/view fees during an exclusivity period.



Open data e data management plan

Research Data Pilot are:

- Future and Emerging Technologies
- Research infrastructures
- Leadership in enabling and industrial technologies – Information and Communication Technologies
- Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing, and Biotechnology: 'nanosafety' and 'modelling' topics
- Societal Challenge: Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy - selected topics as specified in the work programme
- Societal Challenge: Climate Action, Environment, Resource Efficiency and Raw materials – except raw materials
- Societal Challenge: Europe in a changing world – inclusive, innovative and reflective Societies
- Science with and for Society
- Cross-cutting activities - focus areas – part Smart and Sustainable Cities

Projects in other areas can participate on a voluntary basis.

Open data e data management plan

Data Management Plans (DMPs) mandatory for all projects participating in the pilot (deliverable within the first six months)

- Other projects invited to submit a DMP if relevant for their planned research DMP questions:
- What data will be collected / generated?
- What standards will be used / how will metadata be generated?
- What data will be exploited? What data will be shared/made open?
- How will data be curated and preserved?

Impact

2.2 Measures to maximise impact (III)

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 different target audiences, including groups beyond the project's own community.

What is the communication?

Examples of communication activities:

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

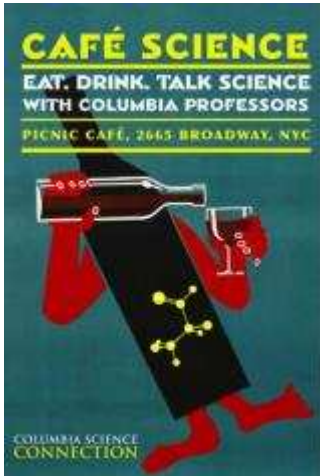
Local workshops about the project with a target audience(s) for whom your project is of interest. For example, if a project, which is engaged in research about the preservation of marine environment, organises workshops with coast-guards, fishers and recreational sailors in all Mediterranean countries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

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

What is the public engagement?

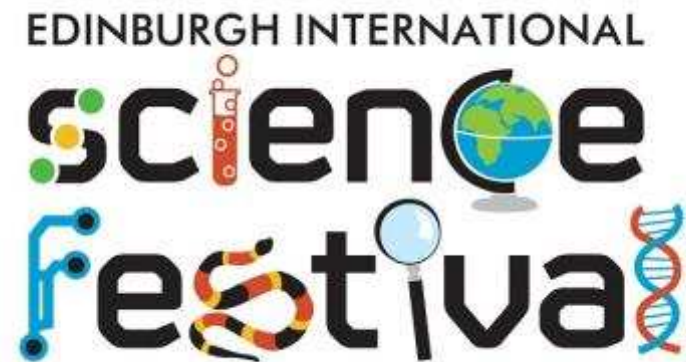
Public engagement is about involving citizens in the decision-making process or in the research process itself. The public can be involved in Research and Innovation (R&I) in a number of different ways and with different objectives:

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

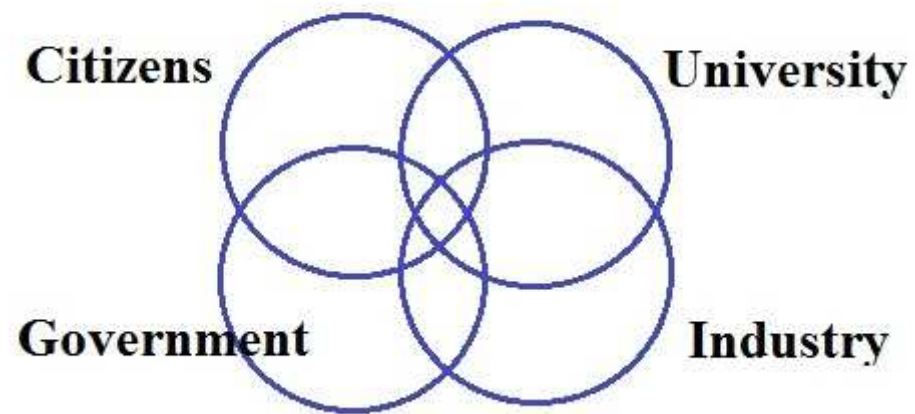


Public engagement in Horizon2020 implies the establishment of participatory **multi-actor dialogues** and exchanges to deliberate on matters of science and technology among:

- Researchers,
- policy makers,
- industry
- civil society organisations
- NGO,
- Citizens,
- common language
- two-way process
- feedback loops



Quadruple Helix Model



Example b) Communication activities

b) Communication activities

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

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

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

Promotional Kit (Task 6.2)

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

Web Platform (Task XX)

The “EU stakeholder platform” developed in the task XX will be [...].

Web 2.0 (Task 6.4 and Task 6.5)

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

Multi-stakeholder policy dialogue workshop (task 6.6)

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

Suggestion: communication, dissemination and exploitation plan

- Context
- Goals
- Target
- Strategy
- Channels

Suggestion: communication and dissemination plan

1. *Your plan for the dissemination and exploitation of the project's results is key to maximising their **impact**. This plan should describe, in a concrete and comprehensive manner, the **area** in which you expect to make an impact and **who** are the potential users of your results. Your plan should also describe **how** you intend to use the appropriate channels of dissemination and interaction with potential users.*
2. *Consider the full range of potential users and uses, including research, commercial, investment, social, environmental, policy-making, setting standards, skills and educational training where relevant.*
3. *Your plan should give due consideration to the possible **follow-up** of your project, once it is finished. Its exploitation could require additional investments, wider testing or scaling up. Its exploitation could also require other pre-conditions like regulation to be adapted, or value chains to adopt the results, or the public at large being receptive to your results.*

Suggestion: tips and tricks

n.b.1. You will need an appropriate consortium agreement to manage (amongst other things) the ownership and access to key knowledge (IPR, data etc.). Where relevant, these will allow you, collectively and individually, to pursue market opportunities arising from the project's results

n.b.2. The appropriate structure of the consortium to support exploitation is addressed in section 3.3

WP Dissemination and Communication

VERY IMPORTANT TASK

- Communication and Dissemination Plan (M3)
- Data Management Plan (M6)
- Website (M3 – 6)
- Promotional Kit (M3-6)

OUTPUTS



Deliverable

OUTCOMES



Milestone

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

Example

implementation

Implementation

3.1 Work plan — Work packages, deliverables

Please provide the following:

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

Brief presentation of the overall structure

Overall structure of the work plan

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

The activities of the project are organized in a set of work packages, with clear objectives and mutual links:

Example

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

Gantt Chart

M: Meeting; SC: Steering Committee D: Deliverables

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

Example

Table 3.1a: Work package description

For each work package:

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

Objectives

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

Deliverables (brief description and month of delivery)

Work package number	3		Start Date or Starting Event				1
Work package title	Bio-based Community building						
Participant number	1	2	3	4	5	6	7
Short name of participant	APRE	FVA	PEDAL	CNR	CE	LOBA	NOVA-ID.FCT
Person/months per participant:	2	2	2	2	9	2	2
Participant number	8	9	10	11	12	13	
Short name of participant	Q-PLAN	FMMC	WR	MINERVA	ASEBIO	ICLEI	
Person/months per participant:	6	2	2	2	6	6	

Objectives:

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

Description of work, lead partner and role of participants

Task 3.1 Classification of stakeholders' groups (Task Leader: ASEBIO, Participants: All partners, Months 1-3)
BIOVoices stakeholder community is built around the themes identified for mutual learning to foster bio-based value chains (WP2, Milestone1). This task will identify the thematic stakeholder groups relevant for mobilisation and mutual learning in frames of each of the theme selected in WP2. All the stakeholders will follow the Quadruple Helix Model, involving policy makers, business, research and civil society. This classification is the basis for targeted community building, ensuring that all the necessary competences, interests, knowledge, experience and variety of perspectives in relation to each of the mutual learning contents will be maximally mobilised and nurtured (following the 3D BIOVoices Model).

Task 3.2 Creation of the stakeholders' database (Task Leader: CE, Participants: All partners, Months 1-36)
During this task, all the partners will engage in **mapping of the stakeholders**, leveraging existing networks, contacts, initiatives and similar projects (identified in section 1.3.2.) to create the stakeholder database according to the **thematic stakeholders' classification** (D3.1).

A **project contact list** enabling **categorization by theme** (identified in WP2) and **stakeholder type** (policy makers, business, research and civil society/users) is established. The contact list will be created and maintained using a privacy enhancing contact management software (e.g. MailChimp or Icontact) that enables potential contacts to opt in and opt out of the BIOVoices project list, thereby respecting privacy principles and good practices in meeting data protection requirements. The contact list will be populated with the mapped contacts, results of the Call for Experts and will be continuously updated and widened via networking initiatives, dissemination activities and searching online public records. Specific emphasis will be made to a well-rounded sex/gender split between engagement of men and women.

This contact list is the central mechanisms for stakeholders' community engagement in multiple level co-creation live events, social platform and social media actions, thereby encouraging the development and use of a peer network.

Task 3.3 Focus group with the initial community (Task Leader: Q-PLAN, Participants: All, Months 7-12)

A call for Experts, together with the BIOVoices Advisory Board members, will provide the BIOVoices initial community. The **Call for Experts** will be launched through the partners' networks, the cooperation with similar initiatives identified in Task 3.2 and through the social media (in particular professional ones like LinkedIn and thematic discussion groups).

The Experts will be screened based on their Curriculum Vitae with the support of the BIOVoices Advisory Board and clustered based on the criteria set in Task 3.2 (minimum target: 60 European experts).

A balanced selection of Experts representing the four categories of the Quadruple Helix Model will be invited to attend the BIOVoices Focus Group (40 persons, European level). The focus group has the following aims:

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

- To collect best practices and lessons learned to foster bio-based value chains.

Task 3.4 BIOVoices methodological approach for Mobilisation and Mutual Learning to foster bio-based value chains

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

Deliverables (brief description and month of delivery)

- D3.1 Stakeholders' classification (M3)
- D3.2 Stakeholders' database (M36)
- D3.3 Focus group report (M12)
- D3.4 BIOVoices methodological approach for Mobilisation and Mutual Learning (M14)

Work package number	4	Start Date or Starting Event					
Work package title	Creation of the online BIOVoices social platform and online mutual learning activities						
Participant number	1	2	3	4	5	6	7
Short name of participant	APRE	FVA	PEDAL	CNR	CE	LOBA	NOVA-ID.FCT
Person/months per participant:	3	13	3	12	3	3	3
Participant number	8	9	10	11	12	13	
Short name of participant	Q-PLAN	FMMC	WR	MINERVA	ASEBIO	ICLEI	
Person/months per participant:	3	3	3	3	3	3	

Objectives:

Based on the outputs of WP2 and WP3, and thanks to the direct engagement of the community (WP3), This WP will address the co-design the BIOVoices social platform. The Web platform will be designed to deliver personalized access to the existing knowledge, tools and services and in parallel, foster the creation of the BIOVoices MML multidisciplinary community, thereby promoting participation and ensuring the continuation and sustainability of the platform after the project ends.

The BIOVoices social platform will also act as a catalyser to attract bio-based communities and actors, enlarging the stakeholders community involved in the early stages of the project within WP2 and WP3. To this end, the key strategic issues related to bio-based policies and developments identified by the BIOVoices project will be used as themes to facilitate the convergence of bio-based actors and communities. Within WP3, the list of key strategic issues will be discussed, and where needed amended or integrated, according to the dialogue that the BIOVoices social platform will facilitate within the bio-based research community.

The BIOVoices social platform, according to the socio-technical approach proposed in this project, represent the technical infrastructure that allows efficiently managing on-line communities (starting from e-communities already existing in the bio-based sector, and applicable in other application domains) and providing and managing participatory tools, co-production of contents, knowledge and co-creation, initiatives launching, creative spaces creation, etc.

Finally, this WP will design and organize the actions aiming at creating the BIOVoices social networks infrastructure, aiming at promoting the project (all SM), attracting relevant stakeholders (especially through the professional social media, like LinkedIn), raising awareness and creating innovative communication activities, targeting the large public/consumers (particularly children, families and teachers). To address the consumers an app, providing gamified information about BB products will be produced in this task.

Description of work, lead partner and role of participants

Task 4.1 Design and implementation of a sustainable BIOVoices multi-stakeholder on line social platform (Task Leader: CNR, Participants: FVA, WR, Months 1-6)

This task aims at identifying at the beginning users' requirements of the BIOVoices social platform and at creating

Work package number	4	Start date or starting event:			1
Work package title	Insertion of the crops in the existing agricultural systems				
Activity Type ¹⁵	RTD				
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 conducted for four subsequent years in Greece, Italy, Poland, China and South Africa.

Example

Suggestions

- Give full details.
- Base your account on the logical structure of the project
- 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
- You should give enough detail in each work package to justify the proposed resources to be allocated

Suggestions

- a distinct work package on 'management' (see section 3.2)
- visibility in the work plan to 'dissemination and exploitation' and 'communication activities', either with distinct tasks or distinct work packages
- include an updated (or confirmed) 'plan for the dissemination and exploitation of results' in both the periodic and final reports
- Include a 'data management plan' as a distinct deliverable within the first 6 months of the project.

Table 3.1b: List of work packages

Work package No	Work Package Title	Lead Participant No	Lead Participant Short Name	Person- Months	Start Month	End month
				Total person- months		

Table 3.1c: List of Deliverables⁶

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

KEY

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

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

Type:

Use one of the following codes:

- R: Document, report (excluding the periodic and final reports)
- DEM: Demonstrator, pilot, prototype, plan designs
- DEC: Websites, patents filing, press & media actions, videos, etc.
- OTHER: Software, technical diagram, etc.

Dissemination level:

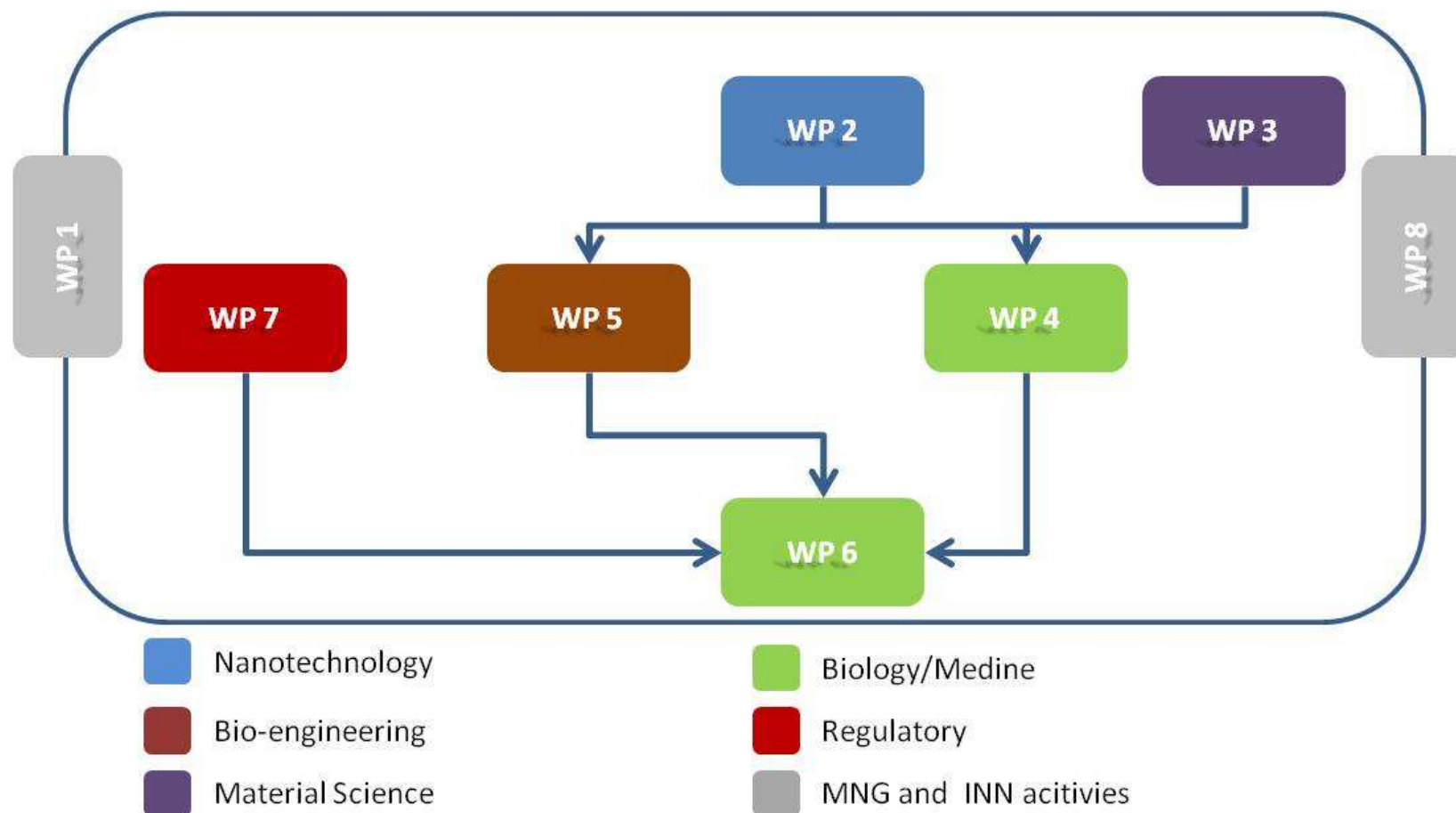
Use one of the following codes:

- PU = Public, fully open, e.g. web
- CO = Confidential, restricted under conditions set out in Model Grant Agreement
- CI = Classified, information as referred to in Commission Decision 2001/844/EC.

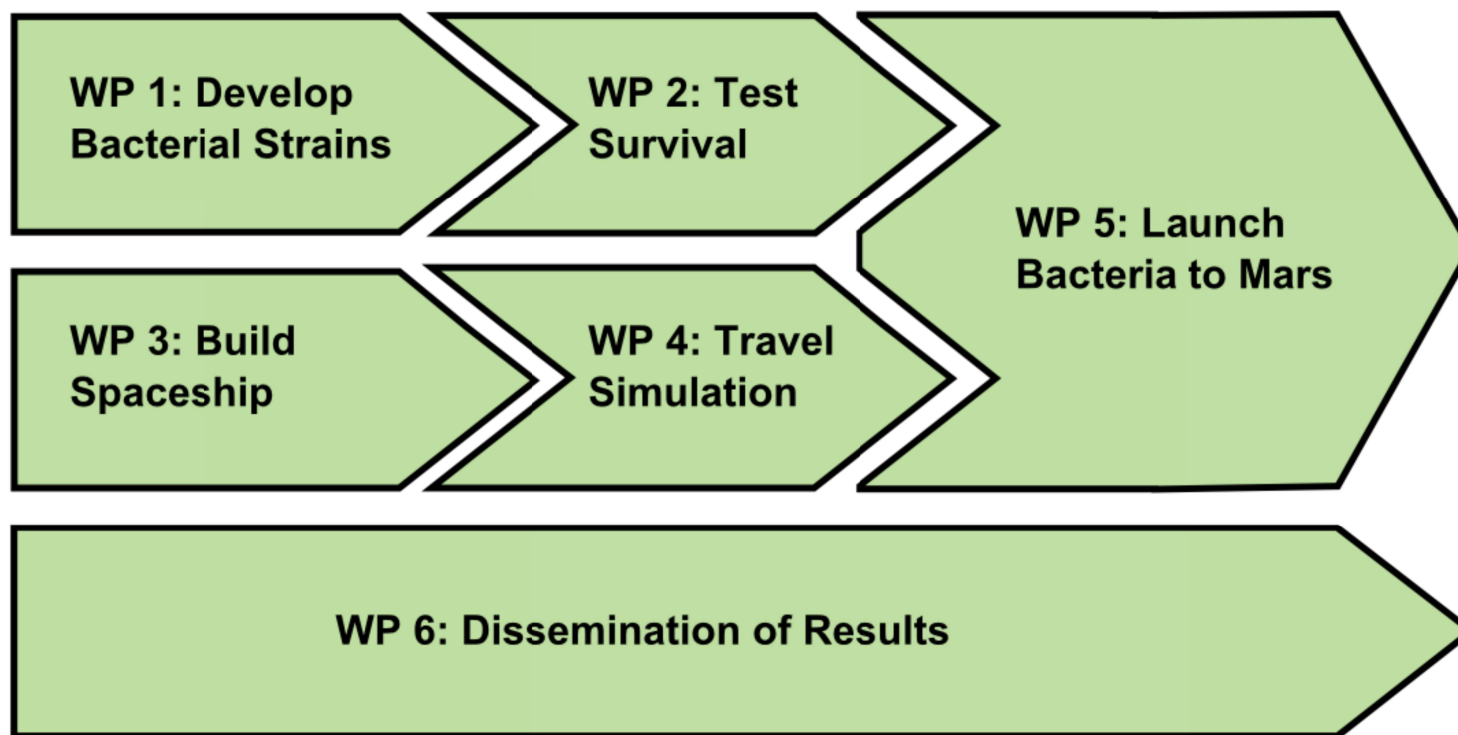
Delivery date

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

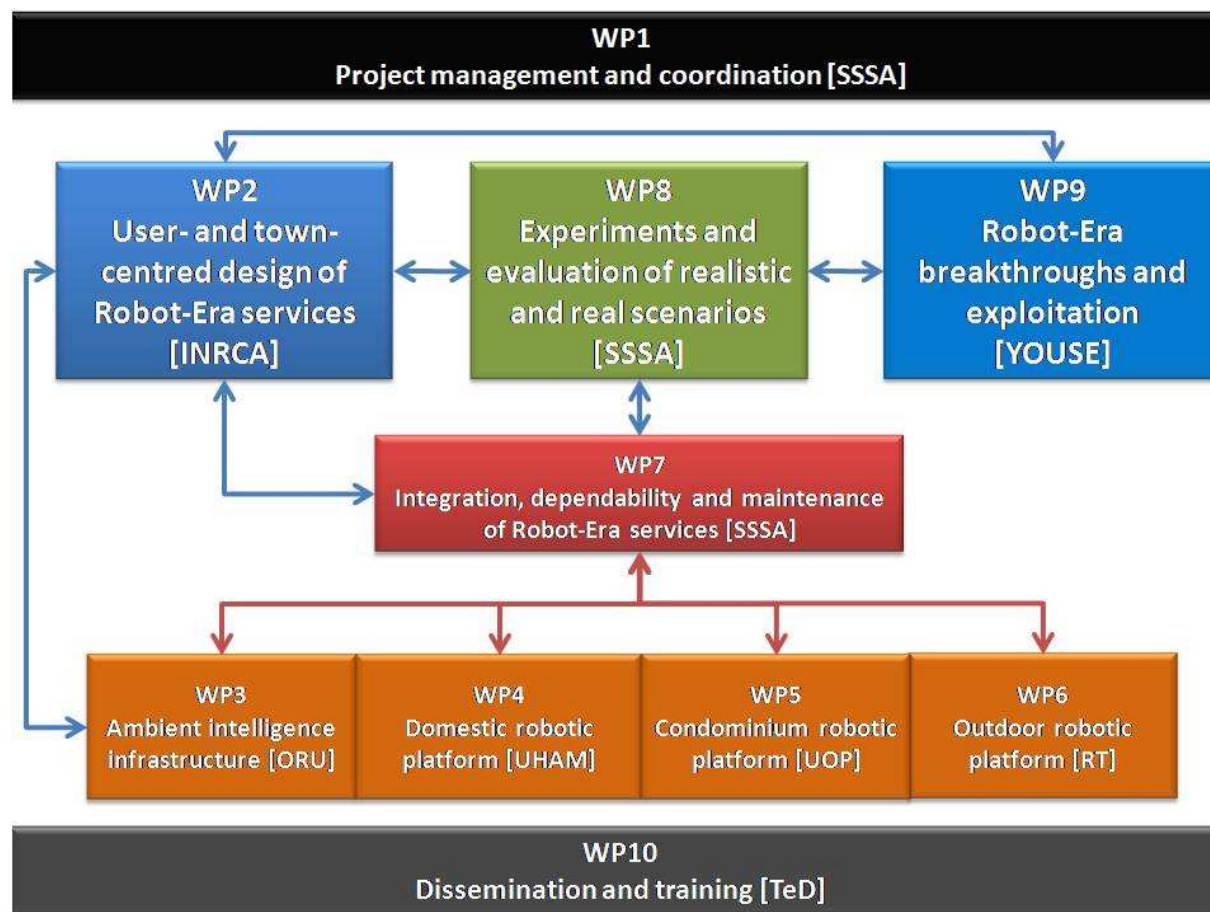
Pert Diagram



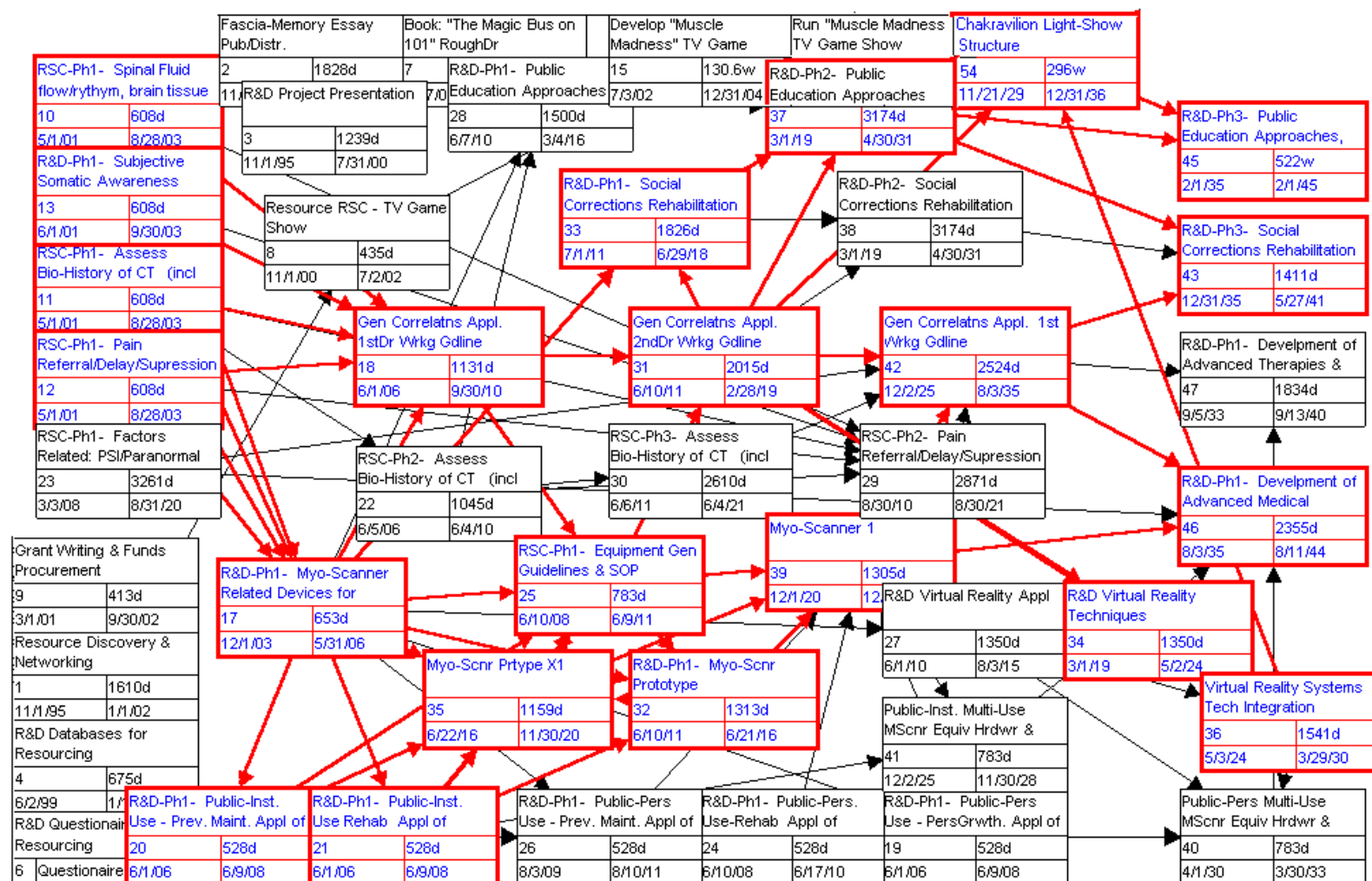
Pert Diagram



Pert Diagram



Spaghetti PERT



Implementation

3.2 Management structure, milestones and procedures

- Describe the organisational structure and the decision-making (including a list of milestones (table 3.2a))
- Explain why the organisational structure and decision-making mechanisms are appropriate to the complexity and scale of the project.
- Describe, where relevant, how effective innovation management will be addressed in the management structure and work plan.
- 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)

Organisational structure

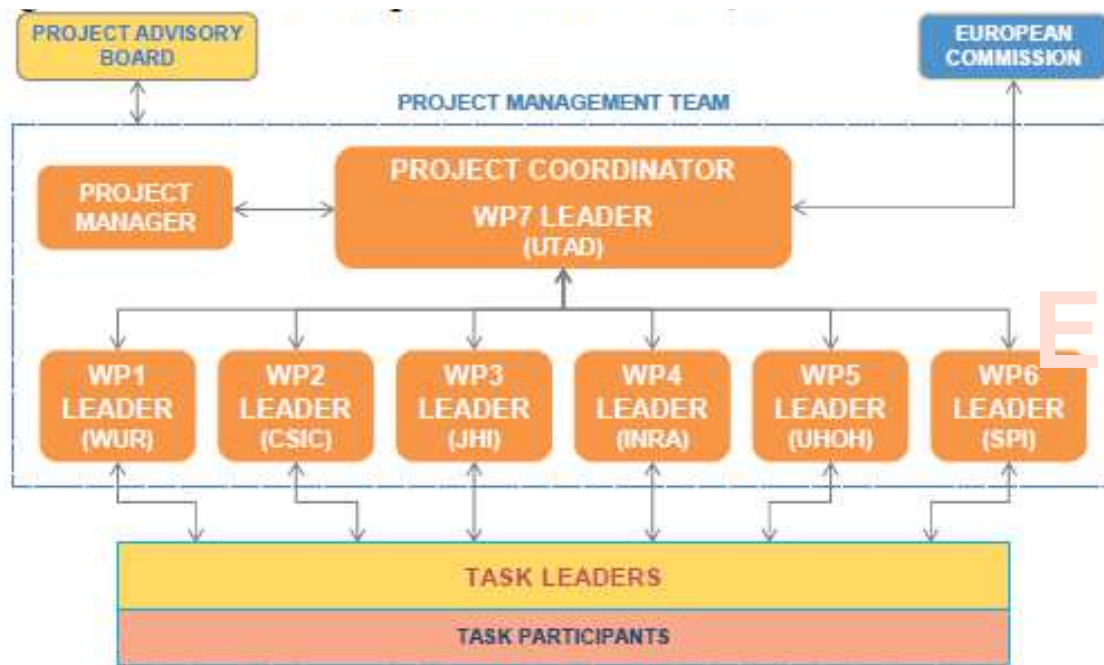
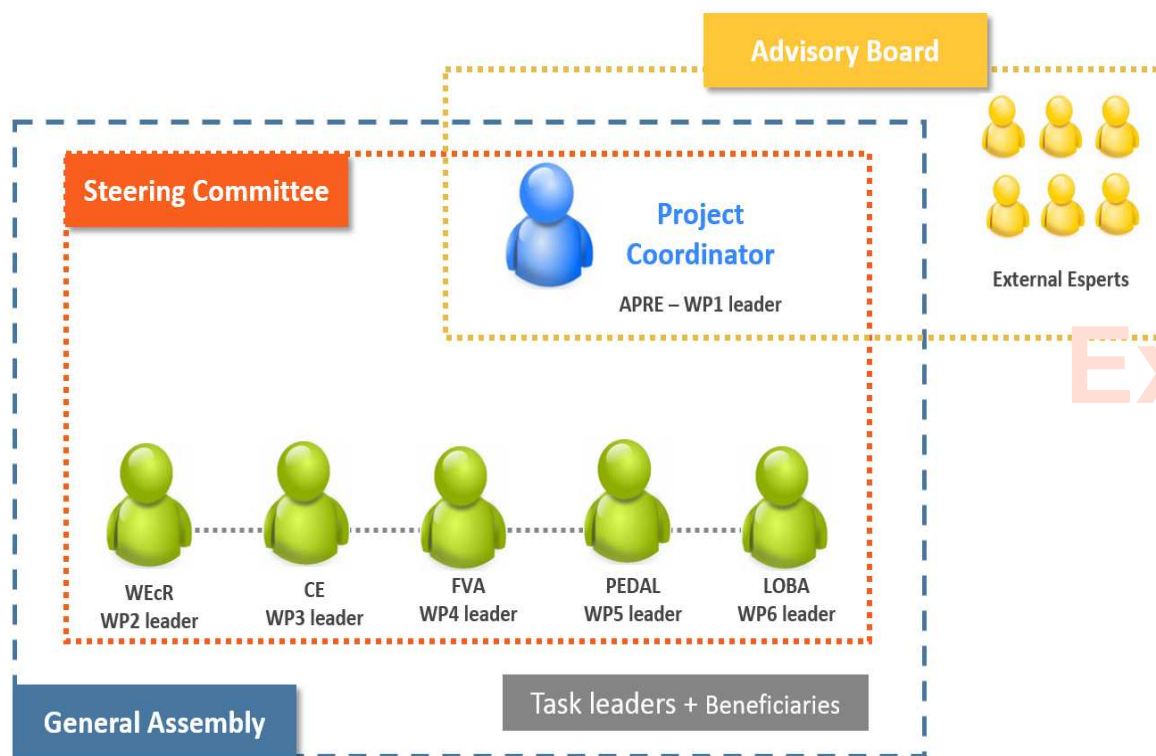


Figure 5 – Management Structure

Example

Organisational structure

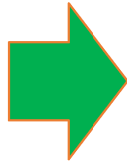


Suggestions

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

WP 'MANAGEMENT: EXAMPLES

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



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

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

Objectives
<ul style="list-style-type: none"> • 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
<p>Task leader: APRE</p> <p>Task 4.1 Administrative management</p> <p>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.</p> <p>Task 4.2 Project management and monitoring</p> <p>Task leader: APRE</p> <p>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.</p>

<p>Task 4.3 Communication Management</p> <p>Task leader: APRE with inputs from all beneficiaries as needed</p> <p>An e-mail based communication flow with the entire consortium will be established in order to exchange information as well as to monitor the official and progress of the work. The coordinator will be the intermediary between the consortium and the project officer, in order to ensure the coordination with the European Commission.</p>
--

Deliverables (brief description and month of delivery)
<p>D4.1. 4 Consortium meeting reports: agenda list of participants, points of discussion and decisions (M 1-36)</p> <p>D4.2. 2 Periodic Reports (M 18, 36)</p> <p>D4.3. 1 Final Report (M 36)</p> <p>D4.4. Interim report form (M 9, 27)</p>
Milestones
M1 Kick off meeting(M1)

Tables for section 3.2

Table 3.2a: List of milestones

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

KEY

Due date

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

Means of verification

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

What is a Milestones?

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



Table 3.2 a: List of milestones

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

Example

Table 3.2a – List of Milestones

No.	Name	Related WP	Due date (M)	Means of verification
M1.1	Structure of data base for market-entry and communication strategies agreed upon	WP1	M4	First draft of database
M1.2	Format of report on market potential and strategies for pulses-based products agreed upon	WP1	M10	First draft of report
M1.3	First set of WP1 training materials available for further validation and refinement against stakeholder input	WP1	M20	WP1 training materials online
M2.1	Elaboration of an online database on pulse nutrient and health beneficial composition	WP2	M14	Database online
M2.2	Establishment of differentiated European target segments regarding pulse consumption	WP2	M10	Data agreed
M2.3	M2.3. Dietary recommendations on pulse-based foods	WP2	M14	Data agreed
M2.4	Consensus agreement on sustainable impact from pulse rich diets	WP2	M14	Data agreed
M3.1	Creation of the database framework to be used in WP3	WP3	M3	First draft of database complete
M3.2	Stakeholder engagement and data/information acquisition done for the existing and emergent pulse-derived food & drink and feed products	WP3	M22	First contacts with stakeholders done
M3.3	Stakeholder engagement and data/information acquisition done to report to pulse stakeholders on current and state of art on pulse processing	WP3	M23	First contacts with stakeholders done
M3.4	Stakeholder engagement and data/information acquisition done for pulse food and drink innovation in relation to non-protein components	WP3	M14	First contacts with stakeholders done
M3.5	Deliver a finalized, state of the art PulseBase database encompassing D3.1 and D3.3 outputs	WP3	M24	Database online
M4.1	Collecting method defined (sources identified, passport data agreed upon, format of database entries)	WP4	M9	Data agreed
M4.2	Target stakeholder organisations/companies identified in each partner state	WP4	M12	List of stakeholders
M4.3	Format of database and sources to be used agreed upon	WP4	M9	First draft of database
M4.4	Contract established for information acquisition			Contract signed

Example

What is the innovation management?

Innovation management is a process which requires an understanding of both market and technical problems, with a goal of successfully implementing appropriate creative ideas. A new or improved product, service or process is its typical output. It also allows a consortium to respond to an external or internal opportunity.

Why an innovation management:

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

“How to convert research into commercial success stories?”.

“How to convert research into commercial success story?”

Suggestion: Key factors for successful innovation management

Key factors for successful innovation management

- Combination of both technology push and market pull
- Duration of the innovation cycle depending on sector rather than technical complexity
- High complexity of innovations
- Human factor
- Financial support from diversified funds

Suggestion: How to address innovation issues at proposal stage

Key factors for successful innovation management

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

Suggestion: How to address innovation issues at proposal stage

Key factors for successful innovation management

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

Suggestion: How to address innovation issues at proposal stage

Key factors for successful innovation management

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

Table 3.2b: Critical risks for implementation

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

Definition critical risk:

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

Level of likelihood to occur: Low/medium/high

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

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

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

Table 8 – Critical risks for implementation

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

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

3.2.3 Risk analysis

BIOVoices adopt a Plan and Recommendations for: Quality assurance, Risk Management, Ethical and Gender issues, Data and Knowledge Management (D1.2 – M3) to identify, assess, mitigate monitor and control risks. These risks are described in more detail below, and the consequences and contingency actions are explained.

Table 3.2 b: Critical risks for implementation

Description of risk	Invol ved WPs	Risk Level	Proposed risk mitigation measures
Disputes between work packages	WP1	Low	Conflicts between <u>work</u> packages shall, in the first instance, be mediated by the Project Coordinator through the SC. If the SC is unable to reach consensus, the disagreement shall be referred to the General Assembly (GA).
Beneficiary not responding to the requests of the coordinator	WP1	Low	Provision in the Consortium Agreement in order to vote by majority the exclusion of the beneficiary from the Grant Agreement
Budget under/over-spending	WP1	Low	Financial flow will be closely and detailed monitored during the project duration.
Bad consortium communication	WP1	Low	The long lasting experience of the Project Coordinator will lead it at involving the partnership in a pro-active way, in order to stimulate their participation and the sharing.
Insufficient critical mass of key players from policy makers, civil society, business and research sector.	WP2	Medium	<ul style="list-style-type: none"> • Strong dissemination activities planned. • Several events planned to impact on the key players at national and European level. Early involvement of partner's networks, business associations, similar projects and initiatives.
Difficulties in engaging SMEs and procurement authorities in collaborative/co-creation tasks	WP2	Medium	<ul style="list-style-type: none"> • Involvement of the key players from the beginning of the project to be able to integrate their needs and requirements. Professional support from multidisciplinary facilitators
Difficulties in accessing stakeholders contacts for creation of the database	WP3	Low	<u>Partners</u> involvement in different previous projects, initiatives and networks ensures access to specialist contacts. Open Call for Experts supported by extensive dissemination effort ensures extension of the community beyond the existing networks and provision of the contacts by experts themselves.
Inappropriate methodological	WP3	Low	Co-creation of the approach involving the target groups in different stages:

Example

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

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

For risks > 10, solutions are provided.

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

Example

Implementation

3.3 Consortium as a whole

- Describe the consortium. How will it match the project's objectives, and bring together the necessary expertise? How do the members complement one another (and cover the value chain, where appropriate)?
- In what way does each of them contribute to the project? Show that each has a valid role, and adequate resources in the project to fulfil that role.
- If applicable, describe the industrial/commercial involvement in the project to ensure exploitation of the results and explain why this is consistent with and will help to achieve the specific measures which are proposed for exploitation of the results of the project (see section 2.2).
- **Other countries and international organisations:** If one or more of the participants requesting EU funding is based in a country or is an international organisation that is not automatically eligible for such funding (entities from Member States of the EU, from Associated Countries and from one of the countries in the exhaustive list included in General Annex A of the work programme are automatically eligible for EU funding), explain why the participation of the entity in question is essential to carrying out the project.

You are only part of the puzzle!

Always look for

Competence, Balance, Complementarity, Excellence, Commitment

**Create your
consortium in line
with the project
objectives**



KEEP CONSORTIUM MOTIVATED!!

Roles in the project

Official roles

- **Coordinator**
- **Partner**

Practical roles

- **Technology/solution**
- **Developer**
- **End user**
- **Training specialist**
- **Project manager**
- **Dissemination expert**
- **Innovation manager**
- **..**

- **-> Multi-actor approach***
- **-> Inter/trans disciplinary***
- **Letters of interest**

WHERE?

■ Principal partners

- Europe and/or beyond
- Topic/Idea based
- Best vs Worst place to test the technology (pilot plant)
- Object/Objective of the study



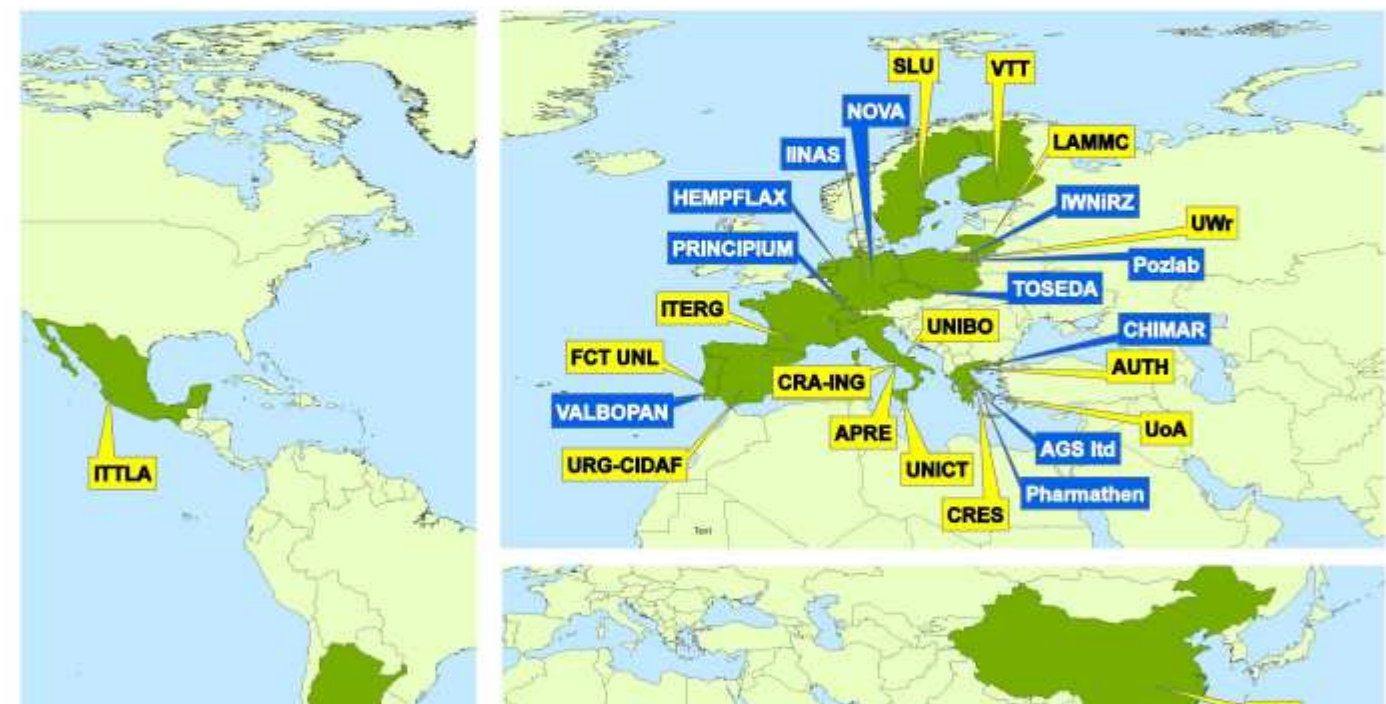
2.3 Consortium as a whole

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

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

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

Example



The following table summarizes the connection between role in the project and specific skills of the partners.

Table 2.1 Partner skills and effort

NR	PARTNER	COUNTRY	SPECIFIC SKILLS	ROLE IN THE PROJECT
1	Enel Green Power	Italy	<ul style="list-style-type: none"> - EGP develops and manages the activities related to the generation of energy from renewable sources; - EGP combines all activities in wind, solar, geothermal and mini-hydro in Italy of Enel and an additional 13 Countries, for a total installed capacity of approx. 4,500 MW; - Long experience in construction of power plant; - Research in renewable energy power generation. 	<ul style="list-style-type: none"> - Project Coordinator - Demo solar plant design, construction, operation and optimization - Design and construction of the solar field
2	SCHOTT SOLAR	Germany	<ul style="list-style-type: none"> - SCHOTT Solar is a market and technology leader for receivers for Concentrated Solar Power plants with parabolic trough technology - SCHOTT Solar has over 51 years experience in solar technology and provides core components in the value chain of solar generation system. 	<ul style="list-style-type: none"> - Solar receiver design and technological development; - Solar receiver supply and testing
3	MET NewEN	Italy	<ul style="list-style-type: none"> - Met NewEN is a company derivated by Maire Tecnimont S.p.A., which was listed on the Italian Stock Exchange. M&T is an international Engineering & Main Contracting Group which provides a comprehensive, integrated system of services and installations in various market sectors - Professional experience in the engineering field and then in engineering company 	<ul style="list-style-type: none"> - Scientific Director - Design and construction of Power Block - Design and supply thermal storage

Example

2.3 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	<ul style="list-style-type: none">– project coordinator (WP0);– member of TTB for project exploitation of results;– leader partner in the development of <i>mCHP and Energy Efficient burner</i> (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	<ul style="list-style-type: none">– 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	<ul style="list-style-type: none">– 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	<ul style="list-style-type: none">– member of TTB for project exploitation of results;– leader partner in the boilers and stoves pollution and retrofitting analysis (WP2);– leading role in demonstration activities (WP3).

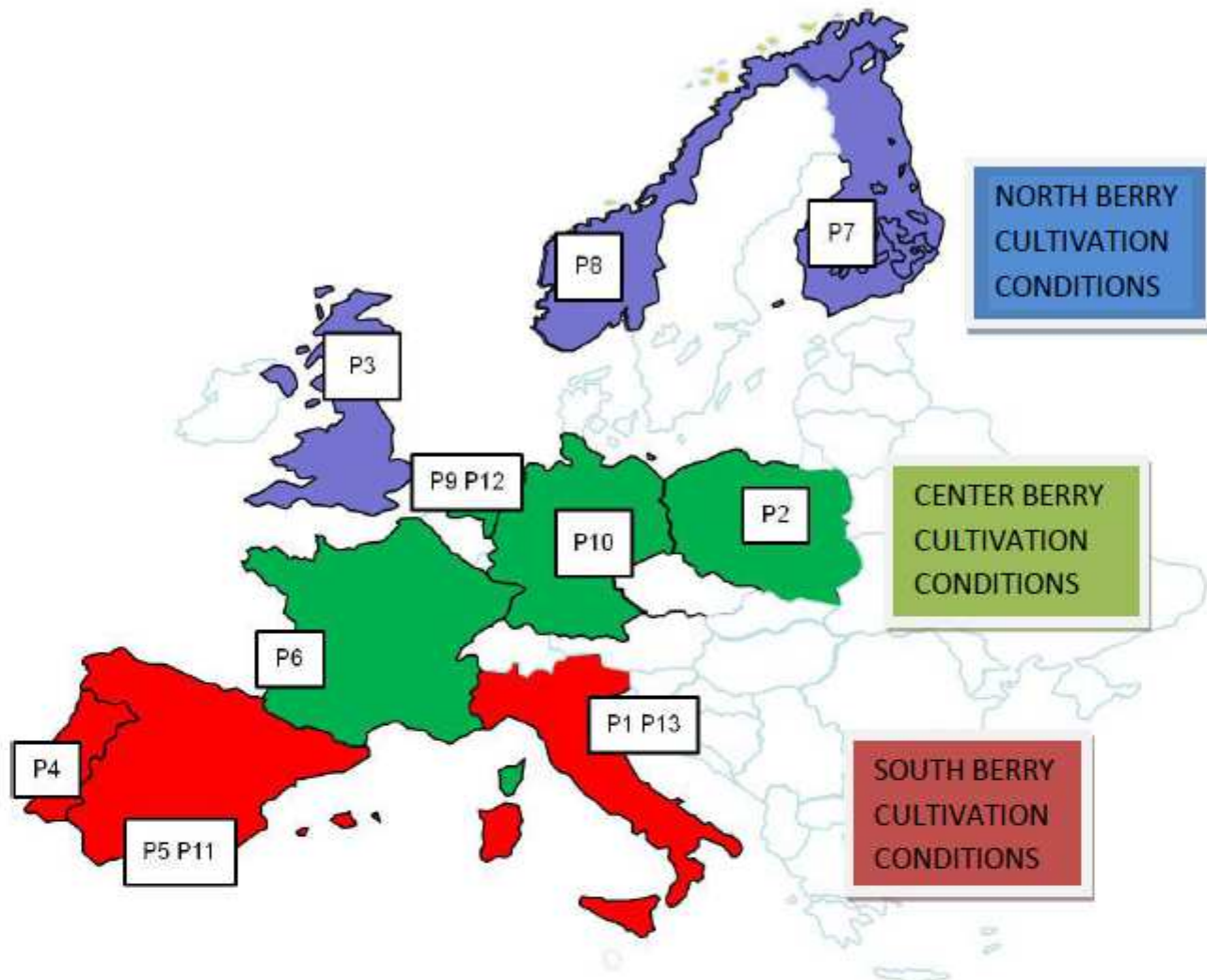
Example

Complementarity of the partnership per competence:



n.	Short name	Main Tasks involved	Major competences used in the project
1	APRE	WP1 leader and T6.4 leader	Experience in Project Management as project coordinator (6 in HORIZON 2020, 17 in FP7, 4 in FP6) A national hub of research and innovation related information and multiplier throughout different stakeholders. APRE is the host organization of the Italian National Contact Points for all the themes and sectors of HORIZON 2020. APRE has a consolidated long lasting experience in dissemination activities towards policy makers (national and regional) and stakeholders (researchers, industry, SMEs, NGOs and civil society in general).
2	FVA	WP4 leader and T2.3, T4.3, T4.4 leader	FVA, an Italian SME with nearly 25 years of experience in the advertising, communication and promotion domain will lead WP1 and contribute actively to the main tasks of the project. FVA supported some important citizen engagement and communication initiatives for customers like <u>Coca-cola</u> , <u>Honeywell</u> , <u>P&G</u> , <u>Philips</u> and other, directly or in cooperation with some of the most relevant PR and communication agencies like <u>Cohn and Wolfe</u> , <u>Ketchum</u> , <u>Young & Rubicam</u> , <u>McCann-Erickson</u> , <u>Saatchi & Saatchi</u> . FVA is specialized in design and implement ICT and new media solutions for advertising and communication, with a market oriented focus. FVA has also a long expertise in design and implementation of social media communities FVA was leader of Impact and Dissemination workpackages in several research projects (LEILA, L4S, UPDESIGN, MEAL, <u>HELP4MOOD</u>). Actually is involved in 2 Coordinated and Support Actions: <u>BIOWAYS H2020-REFLECTIVE-SOCIETY-2015 - CSA 693796</u> in Bio-based domain) and <u>DANDELION, H2020-BBI-PPP-2015 - CSA 720762</u> in the SSH domain and, dealing with increasing impact and valorisation of research results. FVA has 16 years of experience in EU co-funded projects.
3	PEDAL	WP5 and T5.1 leader	Based in Slovakia, PEDAL Consulting (www.pedal-consulting.eu) is a private Slovak consulting firm specialising in enterprise and business development through all its phases. Since 2009, the company managed to establish long-term relationships with European and international associations and companies, and contributed significantly to the creation and growth of several businesses. The staff of PEDAL has long track-record of implementing stakeholder dialogue and citizen awareness activities not only in the framework of various EU funded projects. PEDAL will lead WP2.
4	CNR	T4.1, T4.2 leader	CNR with IRPPS has a strong multidisciplinary skills on the Social informatics, Digital ecosystems, Web applications, Knowledge sharing systems, Social Networking and participatory methodologies. In particular CNR will provide the <u>BIOVoices</u> social platform in WP4 personalising the functionalities of the PLAKSS Framework.
5	CE	WP3 and T3.2 leader	<ul style="list-style-type: none"> Project coordination (CEED TECH); WP leadership (INSEC, DISCOVER-IT, DANDELION, BIOWAYS) Portfolio of more than 500 interdisciplinary (including <u>bioeconomy</u>) project/product/business development consultancy projects Implementation of more than 200 organisational, sectorial, regional, national and international strategic planning processes using public engagement. Implementation of ca 100 events for knowledge transfer, awareness raising and promotion.
6	LOBA	WP6 and T6.1, T6.2 leader	<ul style="list-style-type: none"> Marketing Communication, Integrative and creative communication to interact and inform. Manage, inform and communicate efficiently through the web. For productivity, collaboration and business Individual tailored marketing strategic guidance and advice for identifying appropriate marketing campaigns Organisation of 2 editions of the European Researchers' Night Portugal Participation at the www.securepart.eu project with implementation of an MML approach.
7	NOVA-ID.FCT	T2.2 leader	<ul style="list-style-type: none"> Academic and interdisciplinary (history, sociology, philosophy, environmental engineering, biotechnology, chemistry, etc.) approach on topics such as innovation, resistance, risk, authority, based on a solid and extensive use of world-wide bibliography. Innovative conceptual frameworks on cutting-edge techno-scientific issues with strong social impacts. Long experience in leading research projects funded by the National Board for Science and Technology. Participation in international and H2020 research projects. Participation in ethical advisory boards in international and H2020 research projects. Long experience in evaluating research projects both nationally and internationally. Large experience in organizing major research meetings.
8	Q-PLAN	T3.3, T5.2, T6.3 leader	<ul style="list-style-type: none"> Organisation of awareness raising events both at national and European level wide networks of RTD&I actors (research/technological organisations and institutes, large industries, innovative SMEs) and intermediates (industrial associations, SME clusters, formal and informal networks, etc)

Example



Example

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

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

Implementation

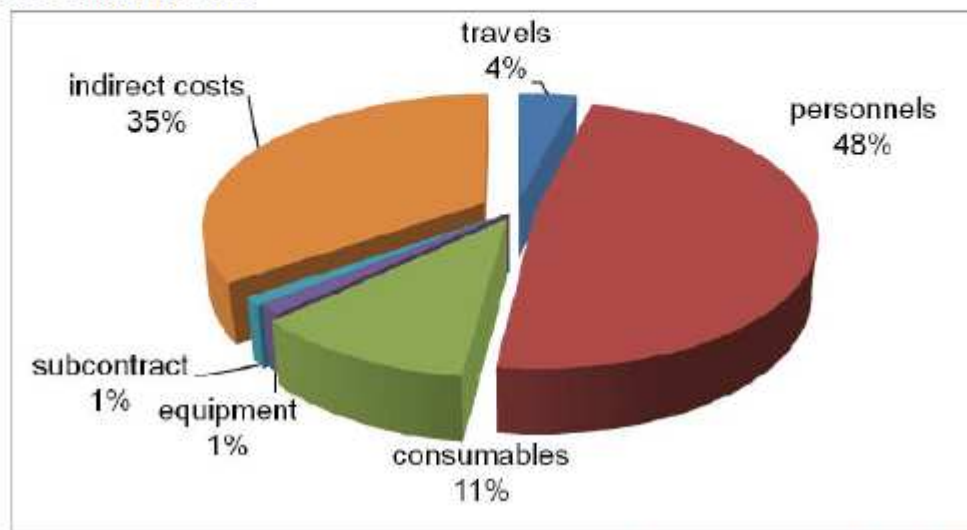
3.4 Resources to be committed

- 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)

Example

2.4 Resources to be committed

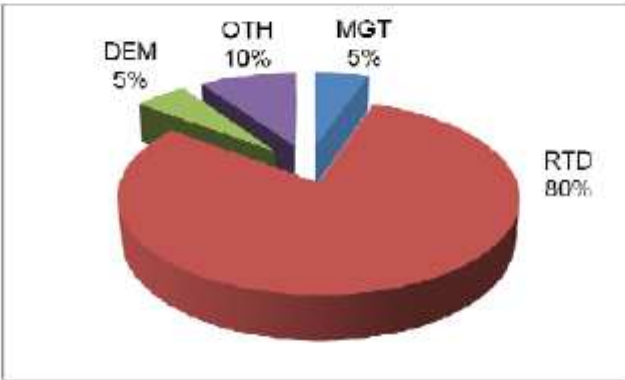
OPTIBIOCAT has 4-year total budget of **EUR 9,331,713** and request a total contribution from the EC of **EUR 7,210,459** to carry out the proposed work plan. The project activities will benefit from already existing facilities and equipment owned by partners (described in the sections 2.2). The distribution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

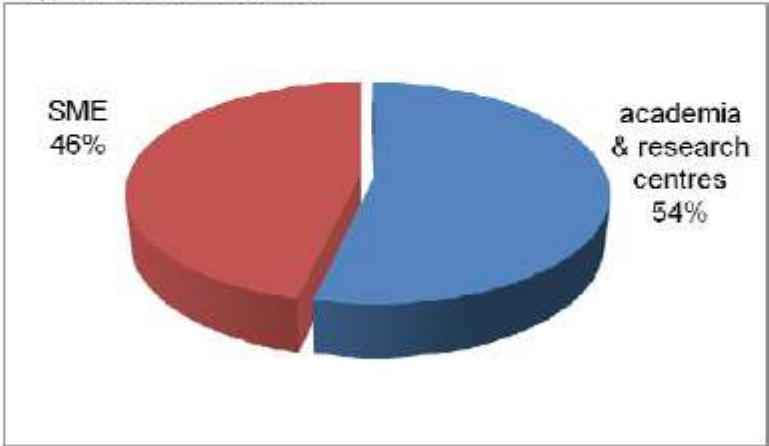
Indirect costs: the indirect costs indicated by the partners were included in accordance with the methods they use as indicated in the forms A3.

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

Max 2 pages per applicant

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	
<i>If yes, please describe and justify the tasks to be subcontracted</i>		
Does the participant envisage that part of its work is performed by linked third parties ⁷	Y/N	
<i>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</i>		
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	
<i>If yes, please describe the third party and their contributions</i>		

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)