APRE
Agenzia per la Promozione della Ricerca Europea

HORIZON EUROPE PROGETTAZIONE

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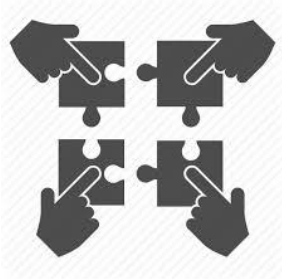
THE EU RESEARCH & INNOVATION

PROGRAMME 2021 – 27

Research and Innovation



Idea

Topic identification

Consortium building

Proposal preparation

Submission

Evaluation & Selection

Signature of the Grant Agreement

Signature of the Consortium Agreement

Payment and Starting Date

Activities

Communication, Dissemination & Exploitation

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EVALUATION PROCESS

Evaluation criteria

Same criteria as in H2020

Same three award criteria: '**Excellence**', '**Impact**' and '**Quality and efficiency of the implementation**'.

Changes introduced upon lessons learnt

- The number of '**aspects to be taken into account**' have been **reduced**, ensuring that the same aspect is not assessed twice
- **Open Science** practices assessed as part of the scientific methodology in the excellence criterion
- **New approach to impact**: Key Impacts Pathways (KIPs)
- The assessment of the **quality of applicants** is assessed under 'implementation', rather than as a separate binary assessment of operational capacity
- Assessment of **management structures** has been removed.

Evaluation criteria (RIAs and IAs)

EXCELLENCE

- ✓ Clarity and pertinence of the **project's objectives**, and the extent to which the proposed work is ambitious, and goes beyond the state-of-the-art.
- ✓ Soundness of the proposed **methodology**, including the underlying concepts, models, assumptions, inter-disciplinary approaches, appropriate consideration of the **gender dimension** in research and innovation content, and the quality of **open science practices** including sharing and management of research outputs and engagement of citizens, civil society and end users where appropriate.

IMPACT

- ✓ Credibility of the **pathways** to achieve the expected **outcomes and impacts** specified in the work programme, and the likely scale and significance of the contributions due to the project.
- ✓ Suitability and quality of the **measures to maximize expected outcomes and impacts**, as set out in the dissemination and exploitation plan, including communication activities.

QUALITY AND EFFICIENCY OF THE IMPLEMENTATION

- ✓ Quality and effectiveness of the **work plan**, assessment of risks, and appropriateness of the effort assigned to work packages, and the resources overall.
- ✓ Capacity and role of each **participant**, and extent to which the **consortium** as a whole brings together the necessary expertise.

Proposals aspects are assessed to the extent that the proposed work is within the scope of the work programme topic

Evaluation criteria (RIAs and IAs) → FIRST STAGE

EXCELLENCE

- ✓ Clarity and pertinence of the **project's objectives**, and the extent to which the proposed work is ambitious, and goes beyond the state-of-the-art.
- ✓ Soundness of the proposed **methodology**, including the underlying

IMPACT

- ✓ Credibility of the **pathways** to achieve the expected **outcomes and impacts** specified in the work programme, and the likely scale and significance of the contributions due to the project.

QUALITY AND EFFICIENCY OF THE IMPLEMENTATION

for first stage:overall

Proposals aspects are assessed to the extent that the proposed work is within the scope of the work programme topic

Ranking Criteria for ex aequo proposals

By order of priority

1. Aspects of the call that have not otherwise been covered by more highly ranked proposals
2. Scores on ‘Excellence’ then on ‘Impact’ (for IAs, scores on ‘Impact’ then ‘Excellence’)
3. **Gender balance among personnel named in the proposal who will be primarily responsible for carrying out the research and/or innovation activities, and who are included in the researchers table in the proposal**
4. Geographical diversity
5. …

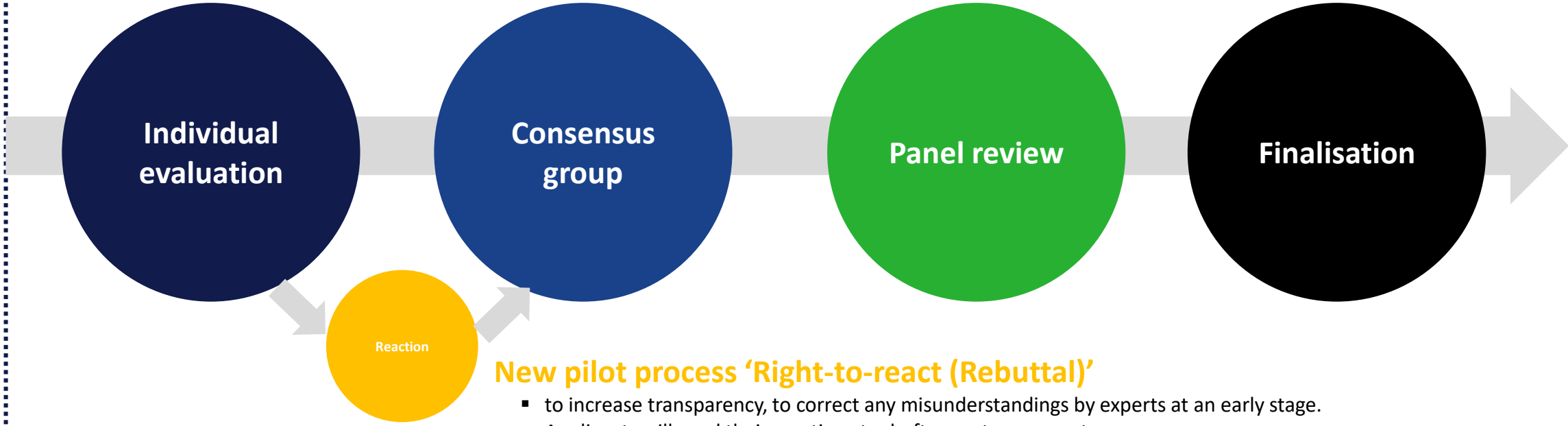
Standard evaluation process

Experts assess proposals **individually**. Minimum of three experts per proposal (but often more than three).

All individual experts discuss together to agree on a **common position**, including comments and scores for each proposal.

The panel of experts reach an **agreement** on the scores and comments for all proposals within a call, checking **consistency across the evaluations.**

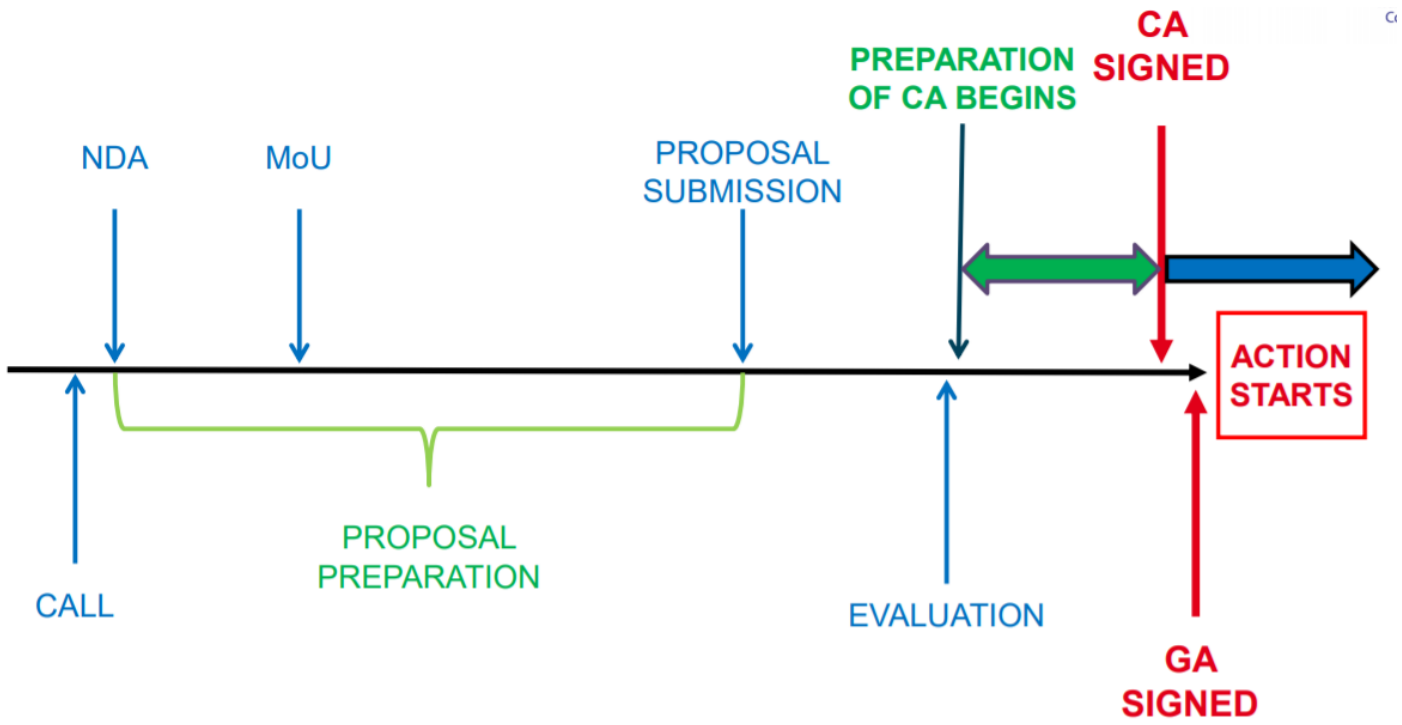
The Commission/Agency reviews the results of the experts' evaluation and puts together the **final ranking list**.



New pilot process 'Right-to-react (Rebuttal)'

- to increase transparency, to correct any misunderstandings by experts at an early stage.
- Applicants will send their reactions to draft experts comments
- Experts will take applicants' reaction into account before finalising their final assessment.

Timeline



- 5 months from submission to evaluation
- 3 months from the start of the negotiation to the signature of the Grant Agreement (GA)

PROPOSAL TEMPLATE

Application Form

- RIA/IA:

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/temp-form/af/af_he-ria-ia_en.pdf

- RIA/IA stage one:

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/temp-form/af/af_he-ria-ia-stage-1_en.pdf

- CSA:

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/temp-form/af/af_he-csa_en.pdf

Application form

- The Application Form has two parts :
  - PART A: *administrative information and budget*
  - PART B: *techicnical description of the project*
- Submission via the Funding & Tenders Portal.

Proposal page limit

Substantial reduction in maximum length:

- RIAs and IAs type of actions: limit for a full application is **45 pages**
- CSAs: limit is **30 pages**
- First stage proposals: limit is **10 pages**
- EIC Pathfinder: limit is **17 pages**
- Exceptions, if any, would be specified in the call text.

HORIZON EUROPE: elements

- **Part A** of the proposal **is generated by the IT system. It is based on the information entered by the participants through the submission system in the Funding & Tenders Portal.** The participants can update the information in the submission system at any time before final submission.
- **Part B** of the proposal is the **narrative part that includes three sections, each corresponding to an evaluation criterion**. Part B needs to be uploaded as a PDF document following the templates downloaded by the applicants in the submission system for the specific call or topic. The templates for a specific call may slightly differ from the example provided in this document.

HORIZON EUROPE: elements

Same general admissibility conditions

- Applications must be submitted before the call deadline, **electronically** via the Funding & Tenders Portal
- Applications must be **complete, readable, accessible and printable**, and include a **plan for the exploitation and dissemination of results**, unless provided otherwise in the specific call conditions.

The submission process consists of **6 steps**:
Step 1: Logging in the Portal
Step 2: Select the call, topic and type of action in the Portal
Step 3: Create a draft proposal: Title, acronym, summary, main organisation and contact details
Step 4: Manage your parties and contact details: add your partner organisations and contact details.
Step 5: Edit and complete web forms for proposal part A and upload proposal part B
Step 6: Submit the proposal

Proposal template – Part B

1 – General information

Section 1 provides basic data on the proposal. It can be filled in by contacts of the coordinator. Other participants may view this section only. Read-only parts are marked in blue.

Topic	Type of action
Call	*Acronym is mandatory*
Proposal title	*Max 200 characters (with spaces). Must be understandable for non-specialists in your field.*
	Note that for technical reasons, the following characters are not accepted in the Proposal Title and will be removed: < > " &
Duration in months	*Estimated duration of the project in full months.*
Fixed keyword	
Fixed keyword	SDG?
Free keywords	*Enter any words you think give extra detail of the scope of your proposal (max 200 characters with spaces).*

Abstract

The abstract should provide the reader with a clear understanding of the objectives of the proposal, how they will be achieved, and their relevance to the Work Programme. This summary will be used as the short description of the proposal in the evaluation process and in communications to the programme management committees and other interested parties. It must therefore be short and precise and should not contain 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 Part B (technical description) of the proposal.

Has this proposal (or a very similar one) been submitted in the past 2 years in response to a call for proposals under any EU programme, including the current call? *A "similar" proposal or contract is one that differs from the current one in minor ways, and in which some of the present consortium members are involved.*	○ Yes	○ No
Please give the proposal reference or contract number	XXXXX-X	

Proposal template Part B: technical description

(for full proposals: single stage submission procedure and 2nd stage of a two-stage submission procedure)

This template is to be used in a single- stage submission procedure or at the 2nd stage of a two-stage submission procedure.

The structure of this template must be followed when preparing your proposal. It has been designed to ensure that the important aspects of your planned work are presented in a way that will enable the experts to make an effective assessment against the evaluation criteria. Sections 1, 2 and 3 each correspond to an evaluation criterion.

Please be aware that proposals will be evaluated as they were submitted, rather than on their potential if certain changes were to be made. This means that only proposals that successfully address all the required aspects will have a chance of being funded. There will be no possibility for significant changes to content, budget and consortium composition during grant preparation.

⚠ **Page limit**: The title, list of participants and sections 1, 2 and 3, together, should not be longer than 45 pages. All tables, figures, references and any other element pertaining to these sections must be included as an integral part of these sections and are thus counted against this page limit.

The page limit will be applied automatically; therefore you must remove this instruction page before submitting.

If you attempt to upload a proposal longer than the specified limit before the deadline, you will receive an automatic warning and will be advised to shorten and re-upload the proposal. After the deadline, excess pages (in over-long proposals/applications) will be automatically made invisible, and will not be taken into consideration by the experts. The proposal is a self-contained document. Experts will be instructed to ignore hyperlinks to information that is specifically designed to expand the proposal, thus circumventing the page limit.

Please, do not consider the page limit as a target! It is in your interest to keep your text as concise as possible, since experts rarely view unnecessarily long proposals in a positive light.

⚠ The following formatting conditions apply.

The reference font for the body text of proposals is Times New Roman (Windows platforms), Times/Times New Roman (Apple platforms) or Nimbus Roman No. 9 L (Linux distributions).

The use of a different font for the body text is not advised and is subject to the cumulative conditions that the font is legible and that its use does not significantly shorten the representation of the proposal in number of pages compared to using the reference font (for example with a view to bypass the page limit).

The minimum font size allowed is 11 points. Standard character spacing and a minimum of single line spacing is to be used. This applies to the body text, including text in tables.

Text elements other than the body text, such as headers, foot/end notes, captions, formula's, may deviate, but must be legible.

The page size is A4, and all margins (top, bottom, left, right) should be at least 15 mm (not including any footers or headers).

Excellence – aspects to be taken into account.

- Clarity and pertinence of the project's objectives, and the extent to which the proposed work is ambitious, and goes beyond the state of the art.
- Soundness of the proposed methodology, including the underlying concepts, models, assumptions, interdisciplinary approaches, appropriate consideration of the gender dimension in research and innovation content, and the quality of open science practices, including sharing and management of research outputs and engagement of citizens, civil society and end users where appropriate.

1. Excellence

⚠ *The following aspects will be taken into account only to the extent that the proposed work is within the scope of the work programme topic.*

1.1 Objectives and ambition *[e.g. 4 pages]*

- Briefly describe the objectives of your proposed work. Why are they pertinent to the work programme topic? Are they measurable and verifiable? Are they realistically achievable?
- Describe how your project goes beyond the state-of-the-art, and the extent the proposed work is ambitious. Indicate any exceptional ground-breaking R&I, novel concepts and approaches, new products, services or business and organisational models. Where relevant, illustrate the advance by referring to products and services already available on the market. Refer to any patent or publication search carried out.
- Describe where the proposed work is positioned in terms of R&I maturity (i.e. where it is situated in the spectrum from 'idea to application', or from 'lab to market'). Where applicable, provide an indication of the Technology Readiness Level, if possible distinguishing the start and by the end of the project.

⚠ *Please bear in mind that advances beyond the state of the art must be interpreted in the light of the positioning of the project. Expectations will not be the same for RIAs at lower TRL, compared with Innovation Actions at high TRLs.*

1.2 Methodology *[e.g. 15 pages]*

- Describe and explain the overall methodology, including the concepts, models and assumptions that underpin your work. Explain how this will enable you to deliver your project's objectives. Refer to any important challenges you may have identified in the chosen methodology and how you intend to overcome them. *[e.g. 10 pages]*

⚠ *This section should be presented as a narrative. The detailed tasks and work packages are described below under 'Implementation'.*

- Describe any national or international research and innovation activities whose results will feed into the project, and how that link will be established; *[e.g. 1 pages]*
- Explain how expertise and methods from different disciplines will be brought together and integrated in pursuit of your objectives. If you consider that an inter-disciplinary approach is unnecessary in the context

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HORIZON EUROPE: new features

NEW FIELDS IN PART A

- **Researchers table** – needed to follow up researchers carreers (HE indicator)
- Role participating organisation
- Self-declaration on **gender equality plan**

FIELDS MOVED FROM PART B TO PART A

- Ethics self-assessment
- **Security questionnaire** (NEW in all HE proposals)
- Information on participants' previous activities related to the call

NEW IN PART B

- Glossary of terms
- Consistency on the use of terminology is ensured in all project phases (from WP to proposal and reporting)
- Extensive explanations on what exactly should be included in each section

1. Excellence

1.1 Objectives and Ambition
1.2 Methodology

The What - Concept
What is the project about?

2. Impact

2.1 Project's pathways towards impact
2.2 Measures to maximise impact - Dissemination, exploitation and communication
2.3 Summary

The Impact - Value
What is the value of the project?

3. Implementation

3.1 Work plan and resources
3.2 Capacity of participants and consortium as a whole

The How - Execution
How to meet the project objectives?

HORIZON EUROPE

Part B1

EXCELLENCE

1.1 Objectives and ambition[e.g. 4 pages]

a. Objective
b. State of the art
c. TRL

1.2 Methodology [e.g. 15 pages]

a. concepts, models and assumptions
b. national or international R&I activities
c. inter-disciplinary approach
d. integration of social sciences and humanities
e. Gender dimension
f. open science practices
g. data management

Part B1

IMPACT

2.1 Project's pathways towards impact [e.g. 4 pages]

Objective

a. the outcomes and the wider impacts
b. requirements and potential barriers
c. scale and significance of the project's contribution to

2.2 Measures to maximise impact [e.g. 5 pages]

a. plan for the dissemination and exploitation including communication activities'
b. strategy for the management of intellectual property

2.3 Summary (e.g Canvas table]

Part B1

IMPLEMENTATION

3.1 Work plan and resources *[e.g. 14 pages – including tables]*

a. overall structure of the work plan;
b. WP timing and components (Gantt chart or similar);
c. graphical presentation with inter-relate (Pert chart or similar).
d. detailed work description + table

3.2 Capacity of participants and consortium as a whole *[e.g. 3 pages]*
concepts, models and assumptions

a. Describe the consortium
b. Critical infrastructure
c. Complementarity
d. the industrial/commercial involvement
e. Third countries

Proposal template Part B: technical description

1. Excellence

1.1 Objectives and ambition *[e.g. 4 pages]*

1.2 Methodology *[e.g. 15 pages]*

2. Impact

2.1 Project's pathways towards impact *[e.g. 4 pages]*

2.2 Measures to maximise impact - Dissemination, exploitation and communication *[e.g. 5 pages]*

2.3 Summary (Canvas table)

3. Quality and efficiency of the implementation

3.1 Work plan and resources *[e.g. 14 pages – including tables]*

3.2 Capacity of participants and consortium as a whole *[e.g. 3 pages]*

Proposal template Part B: technical description

1. Excellence

1.1 Objectives and ambition *[e.g. 4 pages]*

1.2 Methodology *[e.g. 15 pages]*

2. Impact

2.1 Project's pathways towards impact *[e.g. 4 pages]*

2.2 Measures to maximise impact - Dissemination, exploitation and communication *[e.g. 5 pages]*

2.3 Summary (Canvas table)

3. Quality and efficiency of the implementation

3.1 Work plan and resources *[e.g. 14 pages – including tables]*

3.2 Capacity of participants and consortium as a whole *[e.g. 3 pages]*

Proposal template Part B: technical description

1. Excellence

1.1 Objectives and ambition *[e.g. 4 pages]*

1.2 Methodology *[e.g. 15 pages]*

2. Impact

2.1 Project's pathways towards impact *[e.g. 4 pages]*

2.2 Measures to maximise impact - Dissemination, exploitation and communication *[e.g. 5 pages]*

2.3 Summary (Canvas table)

3. Quality and efficiency of the implementation

3.1 Work plan and resources *[e.g. 14 pages – including tables]*

3.2 Capacity of participants and consortium as a whole *[e.g. 3 pages]*

PROGETTAZIONE

Proposal template Part B: technical description

1. Excellence

1.1 Objectives and ambition *[e.g. 4 pages]*

1.2 Methodology *[e.g. 15 pages]*

2. Impact

2.1 Project's pathways towards impact *[e.g. 4 pages]*

2.2 Measures to maximise impact - Dissemination, exploitation and communication *[e.g. 5 pages]*

2.3 Summary (Canvas table)

3. Quality and efficiency of the implementation

3.1 Work plan and resources *[e.g. 14 pages – including tables]*

3.2 Capacity of participants and consortium as a whole *[e.g. 3 pages]*

Proposal template Part B - Section 1

1. Excellence

1.1 Objectives and ambition *[e.g. 4 pages]*

1.2 Methodology *[e.g. 14 pages]*

1.1 Objectives and ambition (e.g. 4 pages)

- Briefly describe the **objectives** of your proposed work. Why are they pertinent to the work programme topic? Are they measurable and verifiable? Are they realistically achievable?

Objectives

- The goals of the work performed within the project, in terms of its research and innovation content. This will be translated into the project's results. These may range from tackling specific research questions, demonstrating the feasibility of an innovation, sharing knowledge among stakeholders on specific issues. The nature of the objectives will depend on the type of action, and the scope of the topic

Objectives

- **Specific** – target a specific area for improvement
- **Measurable** – quantify or at least suggest an indicator of progress
- **Achievable** – state what results can realistically be achieved, given available resources
- **Relevant** – fit the purpose of the topic and address the vision of the project
- **Time-bound** – specify the specific timeline for completion

Example 1

SO3 – To develop a framework for the INTERNALISATION of externalities through policies and businesses models and strategies: In order to underpin pathways towards sustainable food systems based on the internalisation of externalities, **policies** (regulations, fiscal policies, food labelling/certification, public procurement) **and businesses models and strategies** (labelling, supply chain contracts in the value chain, dedicated supply chains, risk management, investment strategies) **will be defined.** Based on the EU-global database of externality data, [redacted] will develop a policy modelling framework for the quantification of internalisation pathways. The framework encompasses well-established large scale agri-food models (CAPRI, MAGNET), enhanced by organic farming, air pollution and health indicators, as well as dedicated micro-models to assess the behavioural response of producers and consumers. In parallel, tools assessing the impact of business models and strategies that internalise externalities along the food value chain will be developed. The effectiveness of different policy and business model pathways will be evaluated in the case studies.

KPIs: [redacted] *Policy modelling framework for INTERNALISATION* ready at **M36**; [redacted] *Business and Value chain INTERNALISATION tools* available at **M36;** N° of CSs where the policy pathways are validated: **6**; N° of CSs where the business model pathways are validated: **7**.

ESR (Criterion 1 – Excellence: tot. 3,5)

Example 1

- The overall objective is clear and pertinent to the requirements of the topic. The four specific objectives are well formulated. They are clear, measurable, verifiable, and realistically achievable within the duration of the proposed work. The inclusion of key performance indicators with quantified and realistic targets is a positive aspect. However, the proposal does not sufficiently consider the positive externalities of food. For example, affecting consumers' choices towards healthier products by internalising external costs of unhealthy diets is poorly explored. *This is a shortcoming*.

Example 2

Obj1. To accelerate the deployment of transparency solutions in EU food systems (especially among micro-enterprises and SMEs), to increase the sustainability and resilience of agrifood systems and improve the performance of production processes. **ExRes**: 15+ small consortia of micro-enterprises and SMEs supported through grants; co-creation and deployment of innovative integrated solutions demonstrated in a real environment through 15 Living Labs (LLs), with demonstrators on integrated technologies, implemented in different geographic areas focusing on 4 selected food chains (milk and meat, fish, fruit and vegetables, edible oils) and horizontally on short supply chains; Replication toolkit (including guidelines, protocols, portfolio, and solutions); Exploitation Roadmap.

Obj2. To reduce the vulnerability of the production chains to frauds and tampering, demonstrating, and communicating origin and authenticity of raw materials and products. **ExRes**: "*EPCIS to track and identify the origin food products*" demonstrated in 2 operational environments for meat and fruit & vegetables; *"Oil diffused platform for traceability, healthy & sustainable diets"* demonstrated in 3 operational environments for olive oil, hemp oil and seed oil; *"Food quality and traceability benchmark tool"* demonstrated; *Green Point* with integrated technologies' platform for the short supply chain demonstrated in 2 operational environments.

ESR (Criterion 1 – Excellence: tot. 4,5)

Example 2

- The objectives are very clearly described, measurable and verifiable and the proposal is very convincing in relation to their achievability. The central objective of developing a platform hosting the information on the existing technological solutions and implemented integrated solutions, including an EU Hub of Expertise in transparency in the food value chain, is highly pertinent to the Topic.

ESR (Criterion 1 – Excellence)

Example 3

1. The six **specific objectives** are clear and pertinent to the topic, ambitious and realistically achievable, measurable and verifiable with quantified indicators specifically descrybed for each single objective. This is excellent.
2. The **objectives** are clear as they are specific, measurable, achievable and realistic. This is very good. The objectives are pertinent and fully aligned with the scope of the call topic as the proposal aims to demonstrate replicable regenerative circular systemic models and solutions that address the end-of-life glass and fiber-reinforced polymer composites with a focus on transportation (automotive, aerospace, naval), construction (building and infrastructures, wind turbines), electrical/electronic components and consumer/sporting goods manufacturing areas. This is very good.
3. The **objectives** of the proposal are pertinent to the scope of the topic. The proposal aims to develop and validate easy-to-use tools andguidance to address the lack of information for food loss and waste, to select best practices, to pilot identified innovative practices and toprovide recommendations. The objectives are sufficiently clear, they are measurable and verifiable (based on detailed key performance indicators) and realistically achievable. However, while food waste starting at the retail stage is well addressed, the proposal insufficiently considers food loss at the upstream level (farming and food production). This is a minor shortcoming.

Why are they PERTINENT to the work programme topic?

- **H2020 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

- **HE pertinence of the objectives to the work programme topic**

How the proposal's objectives address the topic

Example 1

Objective 1: Establishment of innovative governance framework to increased awareness and enhanced engagement of all actors achieved through co-creation processes and contributions from the humanities/art/design/culture to bioeconomy fostering role of innovation and sustainability for the new bio-based materials, new functionalities, safety, user-friendliness, understanding incl. dissemination thereof.
Challenge: enable sustainable engagement; embed art and design as key elements to connect, integrate and communicate bioeconomy in co-developed activities. **Relevance to the work programme**: *The integration of human-centric principles, offered by art, culture and eco-design in respect to the bio-based feedstock, incl. traditional and novel biological materials … Assess and integrate the contribution from the humanities/art/design/culture into bioeconomy/bio-based economy sectors* **KPIs**: developed and integrated 'boundary objects' in hubs' activities; number of co-created activities (in education, outreach and regional development); number of social innovations (products, solutions, approaches, job increase) developed within the hubs; number of webinars, number of dissemination and communication actions **Achievability**: - Developed boundary objects facilitating to connect, or transfer knowledge and experiences between stakeholders in bioeconomy within the 5 hub topics (D1.1, implementation in WP2 and WP3); - establishment of 15 co-creation workshops (WP2) to develop on local development (D2.1), education (D2.2), broad outreach and communication (D2.3) – 5 future visions for region (T2.3) and strategical approach (D2.2) – 2 webinars (10 in total) socio-spacial contexts and foster outreach (T3.5)

Example 2

SO1	Co-creating innovative approaches, formats, materials and tools, through the cooperation between children, young adults, parents, teachers and other formal and non-formal education professionals, to provide educational and informational toolkits on bioeconomy in general and bio-based sectors.
Operational Objectives	GenB promotes the "Co-creation of innovative approaches" (WP1), by: a) Collecting >100 bioeconomy awareness, information and education contents, from >50 sources (T1.1) b) Co-creating innovative approaches for awareness and education through the organization of (T1.3): #1 European Common Ground Camp #3 Focus groups in 3 countries SP, EL, BE #3 Living Labs per target age in 3 countries AT, IT, SK c) Making available approaches, formats, contents and tools through: #1 GenB resources Library (T1.2) #6 toolkits for young people, teachers and other multipliers (T1.4)
The GenB SO1 is pertinent to the topic because contributes to the following scope and expected outcomes: *This topic should involve the effective contribution of SSH disciplines* *Innovative approaches to provide a toolkit with educational and information material* *Strengthened cooperation between teachers, parents and youth by developing new approaches*	

1.1 Objectives and ambition (e.g. 4 pages)

- Describe how your project goes **beyond the state-of-the-art**, and the extent the proposed work is ambitious. Indicate any exceptional ground-breaking R&I, novel concepts and approaches, new products, services or business and organisational models. Where relevant, illustrate the advance by referring to products and services already available on the market. Refer to any patent or publication search carried out.

Example 1

1.1.2 Ambition

In line with the abovementioned four SOs, [redacted] brings advances beyond the state of the art in the following areas: 1) stakeholder platform, 2) valuation, 3) internalisation and 4) impact, as reported in Table 1:

State of the art	Progress beyond the state of the art in [redacted]
STAKEHOLDER PLATFORM supporting the transition towards a sustainable food system	
Currently, internalisation of externalities is a niche activity applied by frontrunners. Moreover, there are several actors in the field with diverse expertise and perspectives, but there is a lack of cooperation due to different factors (barriers in collaboration, lack of platforms putting in contact all actors, etc.).	Internalisation of externalities **will move to broader audience of policy makers and business actors** including progressive investors and asset managers willing to invest in sustainable companies, through the CoP, the MMLs and the case studies. [redacted] will **create a cooperative environment**. A wide number of actors will co-create activities using a multi-actor approach (WP4).
VALUATION of externalities	

ESR (Criterion 1 – Excellence: tot. 3,5)

Example 1

- On the whole, the proposal provides a good overview of the state of the art. The proposed work is ambitious and goes well beyond the state of the art, for example by developing the MAGNET model to include environmental externalities in food and by using experimental methods at the micro level. However, the proposal mainly explores land-based production systems and does not describe the current state of fish food resources in sufficient detail, which is reflected both in the analysis of the state of the art and the case studies. This is a shortcoming.

Example 2

The main contributions of [redacted] are as follows, going beyond the state of the art: **1) Novel framework to identify and assess drivers, barriers and impacts of XG and edge-based solutions** considering multiple dimensions, such as SEET and policy ones, linking SDGs to the concept of last-mile communities; **2) Analysis of the state of the art on connectivity solutions, XG and Edge-based and last-mile,** to define criteria for the identification of viable solutions from multiple points of views in different contexts; **3) Innovative business models** with clear demonstrable impact on users' SEET benefits; **4) Collaborative approach in LLs** via workshops, interviews and social events, raising awareness on XG solutions potential and to collectively identify needs and plausible solutions to foster sustainable development and use; **5) Set-up of software and hardware components** to demonstrate the potential of 5G/XG and last-mile solutions taking as reference the solutions identified in LLs; **6)** Development of a DSS to support actors – i.e., farms, foresters, firms, communities, and other stakeholders – in the identification of the most viable options for XG connectivity based on the framework above; **7) Guidelines for policymakers** in supporting and implementing availability and use of solutions in rural areas; **8) Robust dissemination strategy** to reach a wide audience and raise awareness on the potential of existing and upcoming XG/5G connectivity solutions.

ESR (Criterion 1 – Excellence: tot. 4,5)

Example 2

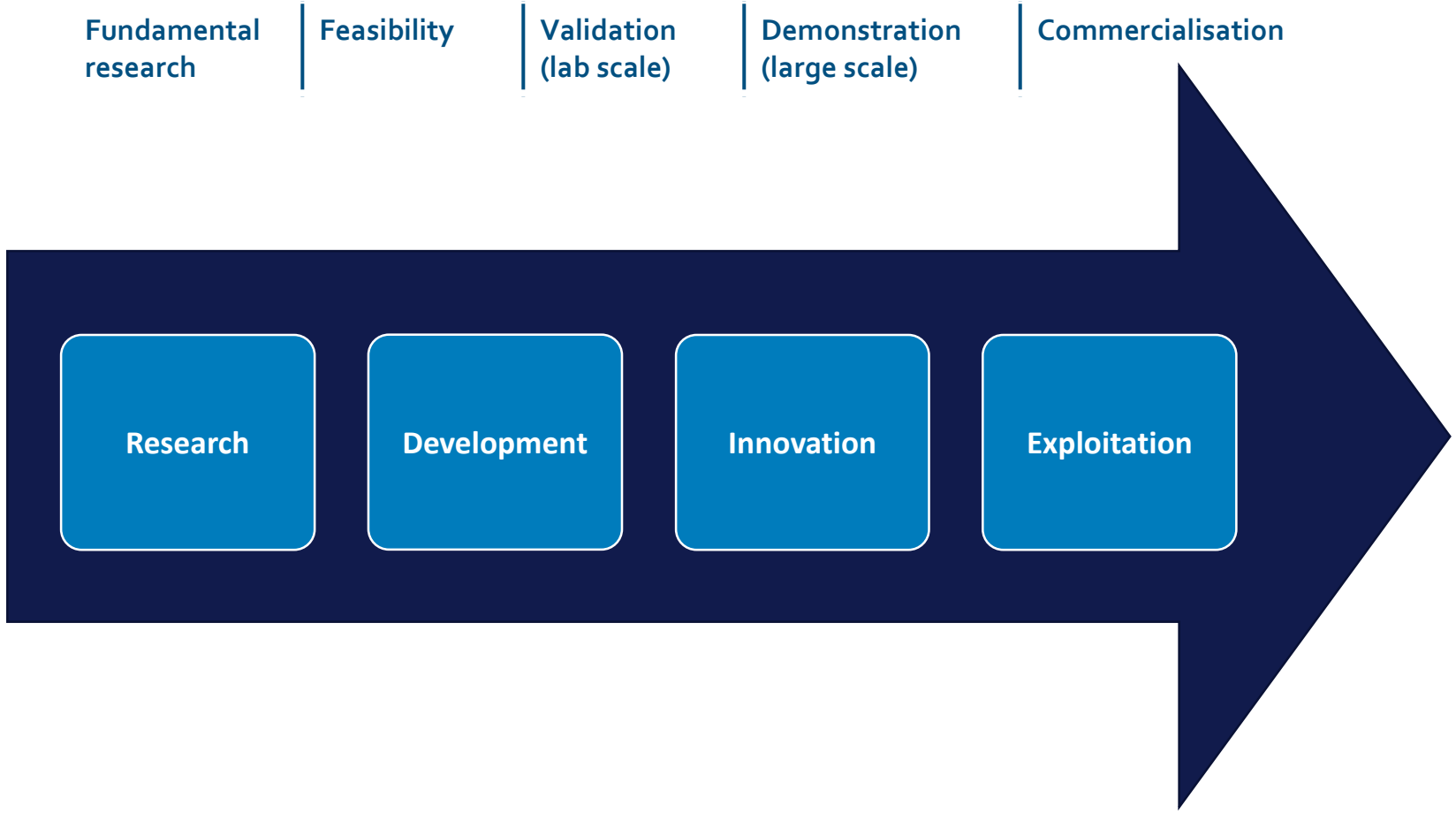
- The proposed work is ambitious and it goes beyond the state of the art in developing a novel conceptual framework called socio-economic environmental-technological (SEET) engaging the relevant actors. The proposal target is a decision support tool for rural last-mile communities, with Living Labs used for testing and validation. Such inclusive and community-level driven approach is innovative. However, five living labs are located in the digitally more developed countries while less digitally developed countries are mostly abandoned in the implementation of living labs, even if representatives of those countries are in the consortium. This is a shortcoming.

1.1 Objectives and ambition (e.g. 4 pages)

- Describe where the proposed work is **positioned in terms of R&I maturity** (i.e. where it is situated in the spectrum from 'idea to application', or from 'lab to market'). Where applicable, provide an indication of the Technology Readiness Level, if possible distinguishing the start and by the end of the project.

Note Please bear in mind that advances beyond the state of the art must be interpreted in the light of the positioning of the project. Expectations will not be the same for RIAs at lower TRL, compared with Innovation Actions at high TRLs.

Positioning of the project



Technology Readiness Levels

Where the specific call conditions require a Technology Readiness Level (TRL)

- TRL 1 — Basic principles observed
- TRL 2 — Technology concept formulated
- TRL 3 — Experimental proof of concept
- TRL 4 — Technology validated in a lab
- TRL 5 — Technology validated in a relevant environment (industrially relevant environment in the case of key enabling technologies)
- TRL 6 — Technology demonstrated in a relevant environment (industrially relevant environment in the case of key enabling technologies)
- TRL 7 — System prototype demonstration in an operational environment
- TRL 8 — System complete and qualified
- TRL 9 — Actual system proven in an operational environment (competitive manufacturing in the case of key enabling technologies, or in space)

Example 1

1.2.9 [redacted] tech ecosystem (and R&I TRL): Platform System Architecture, AI-DSS, Trials demos oriented to related needs + requirements + solutions

[redacted] will make available an ecosystem of technologies with different levels of maturity (TRL) that will be available during the project, as summarized in the illustration. Precisely: a Cloud Infrastructure (TIM), an open source Field-Edge-Cloud FIWARE-based platform, where to test the potentials of the different connectivity solutions in term of data processing, a test-bed (TEI) to ensure all partners to simulate the IoT-Edge-Cloud data processing benefits and potentials, an Adaptive Incremental Decision Support System implemented on the platform that will support the different users with different digital skills in the decision making, a proximity alarm tool for raising awareness of climate change related risks hazard in the XG contexts. AI-GConnect also intends to create an application platform that implements algorithms equipped with AI (Artificial Intelligence) modules (including Big Data Analytics, ML and, Deep Learning modules). It will be used by the [redacted]S, relating and analysing the users' needs, the connectivity requirements, the connectivity solutions and especially the availability of local connectivity, providing as results the best and most suitable solutions in technical and economic terms, having as

[redacted] **ecosystem, R&I maturity** TRL/Start-To

- **Cloud Infrastructure** (TIM) TRL8
- **IoT-Edge-Cloud FIWARE open source platform + Cloud platform** (TIM) – From TRL4 to TRL5 (UMU)
- **Test-bed for last-miles rural areas connectivity service demos** including **IoT/Field-Edge-Cloud processing** – From TRL3 to TRL5 (TEI)
- **Adaptive Incremental Decision Support System** – AI-[redacted] (DIG) – From TRL4 to TRL5 (DIGIO)
- **Logical Grid/KPIs SEET assessment & impact tool** assumed by the DSS – From TRL2 to TRL3 (LUT/WU/UNIFG/CNR/POLIMI)
- **Shifting multiple geodata sources analysis at the edge for land degradation** (Living Lab Trials – on field implementation) – From TRL3 (GeopanAPP) to TRL4 (POLIMI)
- **Proximity alarm service application** tested on XG-last miles solutions/communities in climate change hazard alarm – From TRL3 to TRL5 (TEI)

ESR (Criterion 1 – Excellence: tot. 3,5)

Example 1

- The project aims to build on and integrate existing technology, which is already used in different settings. The target is a TRL5 for most of these components and the evolution for others is a TRL7 and above. This is positive as it exceeds expectations.

Example 2

Increasing the Technology Readiness Level (TRL)

[redacted] will implement advanced affective technological solutions to support food transparency with an ambitious innovation component. Table below shows the TRLs that [redacted] aims at for each main innovation. With its array of demand-driven innovation actions, tools and technologies already developed by partners at TRL 2-7 will be validated and demonstrated to reach a TRL 6 (technology demonstrated in relevant environment), 7 (system prototype demonstration in operational environments), 8 (system complete and qualified) or 9 (actual systema proven in operational environment).

Innovation solution	Description	TRL (from - to)
FoodCASE Research	Light version of FoodCASE for researchers, industry and interested persons.	TRL4 - TRL9
FoodCASE Lab	FoodCASE version to manage laboratory data.	TRL4 - TRL9
FoodCASE Web crawler	Web crawler to autonomously extract data from web and present to users.	TRL2 - TRL7
METROFOOD-RI Catalogues	Catalogues for datasets, apps and services	TRL3 - TRL7
METROFOOD-RI Analytical Search Engine	Search engine that can query several system and search data.	TRL4 – TRL6/7
METROFOOD-RI AAI	Authentication and authorisation infrastructure	TRL7 - TRL9
Identification technologies	Data source with various identification technologies including one- and two-dimensional barcodes, passive RFID tags or IoT LPWAN beacons.	TRL4 – TRL6
GS1 EPCIS	Event database based GS1 EPCIS standard, which will record events related to the flow of products in the supply chain.	TRL4 – TRL6
Analogue and digital labels measuring fish freshness.	Microbe reading labels to evaluate freshness of fish products.	TRL6 - TRL8
Rapid analytical tools for food [illegible]	Untargeted methods for fingerprinting	TRL5 – TRL7

ESR (Criterion 1 – Excellence: tot. 4,5)

Example 2

- The maturity of the proposed technologies and their expected TRL by the end of the project is well aligned with the Topic description.

ESR (Criterion 1 – Excellence)

Example 3

- The advancements beyond the state of the art are ambitious and credible due to the thorough understanding of implications of climate neutrality policies and measures in the agri-food sector, and to the identification of strategies for achieving and supporting it, which makes this project innovative and is convincing, considering the areas of the planned case studies.
- The proposed work is ambitious. The proposal presents a number of advanced technological solutions to support food transparency, covering novel concepts and approaches, new products and services. The proposal clearly describes the current state of the art, and goes beyond in the application of ICT tools and digitalisation of the agri-food system. This is very good.

1.2 Methodology *[e.g. 15 pages]*

- Describe and explain the **overall methodology**, including the concepts, models and assumptions that underpin your work. Explain how this will enable you to deliver your project's objectives. Refer to any important challenges you may have identified in the chosen methodology and how you intend to overcome them. [e.g. 10 pages]

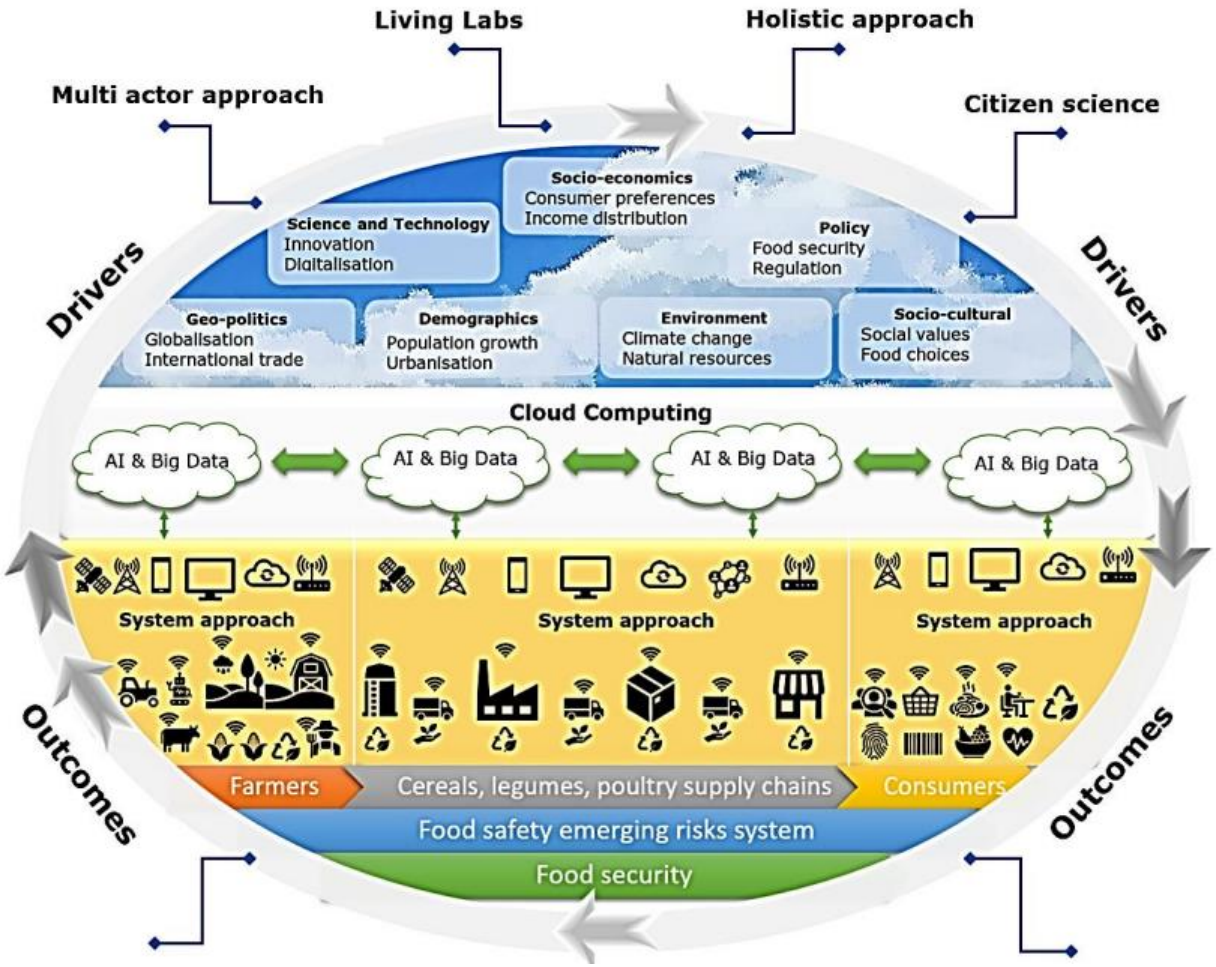
Note This section should be presented as a narrative. The detailed tasks and work packages are described below under 'Implementation'.

*Note Where relevant, include how the project methodology complies with the 'do no significant harm' principle as per Article 17 of **Regulation (EU) No 2020/852** on the establishment of a framework to facilitate sustainable investment (i.e. the so-called **'EU Taxonomy Regulation'**). This means that the methodology is designed in a way it is not significantly harming any of the six environmental objectives of the EU Taxonomy Regulation.*

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.)
- Description of the pilot cases (if any)
- Flow chart visualizing the phases of the project and their interconnections
- Verify coherence among objectives, activities, results

Example


Living Labs
Holistic approach
Multi actor approach
Citizen science
Drivers
Drivers
Socio-economics
Consumer preferences
Income distribution
Science and Technology
Innovation
Digitalisation
Policy
Food security
Regulation
Geo-politics
Globalisation
International trade
Demographics
Population growth
Urbanisation
Environment
Climate change
Natural resources
Socio-cultural
Social values
Food choices
Cloud Computing
AI & Big Data
AI & Big Data
AI & Big Data
AI & Big Data
System approach
System approach
System approach
Outcomes
Outcomes
Farmers
Cereals, legumes, poultry supply chains
Consumers
Food safety emerging risks system
Food security

ESR (Criterion 1 – Excellence: tot. 4,5)

Example

- The methodology is appropriate to achieve the intended objectives. It appropriately reflects the inherent complexity of food safety. It covers many aspects related to food safety, risk assessment, risk communication, and consumer behavior. Various suitable methods and tools will be used, which will be supported by innovative IT technologies: research, case studies, qualitative research among consumers, information exchange between food market participants, living labs and workshops.
- However, even though the proposal states that it will significantly improve the current risk analysis framework, there is not enough evidence that it can achieve this ambitious task. Moreover, although assessment of risk is highlighted as a priority in the rationale of the projects' tasks, there are no sufficient concrete actions to support this claim. For example, the proposal does not specify clearly the type of toxicological information and necessary points of departure to conduct the risk assessment appropriately. This is a shortcoming.

HORIZON-CL2-2021-HERITAGE-01-01: Green technologies and materials for cultural heritage

The overall methodology is adequate. However, specific steps of the scientific methodology which should be taken to develop the new products, are insufficiently detailed. For example, the plausibility of a significant rise of the TRL. Moreover, objective 3 proposes solutions of new materials, but it is not fully clear how these solutions are to be applied to cultural heritage.

Another focus is to foster innovative use of IoT to improve the accessibility and maintenance of historic sites in regard to the interconnection of different platforms and user interfaces. The concept to mobilize citizens to act as intermediaries to convey data from the sensors to an e-platform is innovative. However, the privacy aspects regarding the visitors' engagement as Human Sensors are not fully addressed.

The gender dimension is well-considered and open science practices are appropriately adopted, including the engagement of citizens, civil society, and end-users.

The ”Do No Significant Harm” concept

- EU Taxonomy regulation defines when an economic activity can be considered sustainable. Present focus is on climate mitigation and adaptation.
- Concepts adopted by EU Taxonomy such as “Substantial Contribution” and “Do No Significant Harm” (DNSH) to be assessed with a life cycle approach, together with the definition of the **six environmental objectives** are relevant also beyond the financial sector:
  - Horizon Europe
  - Resilience and Recovery Plan
- Guidelines published for RRP could be used also for Horizon Europe: https://ec.europa.eu/info/sites/default/files/c2021_1054_en.pdf

What is the EU taxonomy

The Taxonomy Regulation was published in the Official Journal of the European Union on 22 June 2020 and entered into force on 12 July 2020. It establishes the framework for the EU taxonomy by setting out four overarching conditions that an economic activity has to meet in order to qualify as environmentally sustainable.

The Taxonomy Regulation establishes **six environmental objectives:**

1. An economic activity is considered to do significant harm to **climate change mitigation** if it leads to significant greenhouse gas (GHG) emissions;
2. An economic activity is considered to do significant harm to **climate change adaptation** if it leads to an increased adverse impact of the current climate and the expected future climate, on the activity itself or on people, nature or assets;
3. An economic activity is considered to do significant harm to the **sustainable use and protection of water and marine resources** if it is detrimental to the good status or the good ecological potential of bodies of water, including surface water and groundwater, or to the good environmental status of marine waters;
4. An economic activity is considered to do significant harm to the **circular economy**, including waste prevention and recycling, if it leads to significant inefficiencies in the use of materials or in the direct or indirect use of natural resources, or if it significantly increases the generation, incineration or disposal of waste, or if the long-term disposal of waste may cause significant and longterm environmental harm;
5. An economic activity is considered to do significant harm to **pollution prevention and control** if it leads to a significant increase in emissions of pollutants into air, water or land;
6. An economic activity is considered to do significant harm to the **protection and restoration of biodiversity and ecosystems** if it is significantly detrimental to the good condition and resilience of ecosystems, or detrimental to the conservation status of habitats and species, including those of Union interest.

”Do No Significant Harm” in the proposals

- Applicants can refer to the DNSH principle when presenting their research methodology and the expected impacts of the project, to show that their project will not carry out activities that make a significant harm to any of the six environmental objectives of the EU Taxonomy Regulation listed above
- **Evaluators will not score applications** in relation to their compliance with the DNSH principle unless explicitly stated in the work programme

Example HE

Table 5 Neutral (0), negative (-) or positive (+) (in)direct effects on DNSH principle during project and beyond, and mitigation.

Objectives	[redacted] methodology	Long-term impact
Climate change mitigation	0/- Negligible adverse effects (GHG emissions) during research phase. Pilot facility BBEPP uses renewable energy (photovoltaic system). + According to Annex VI, Methodology for climate tracking,[40] activity contributes to objective with coefficients of 40-100%: Intervention Field (IF) 022/023: *R&I processes, technology transfer and cooperation between enterprises focusing on the low-carbon economy, resilience to climate change/circular economy.*	0/- Emissions during production phase: LCA results. TPB develops electric instead of gas-based drying. Production facility of TPB planned in Breda (local mitigation measures by replacing gas with sustainable alternatives). LDF will use i) direct heat energy recovery for temperature control of fermenters; ii) cell recycling (energy savings; lengthening fermentation runs reduces number of sterilisations); iii) anaerobic digestion of excess biomass for energy/gas recovery; iv) use of wind energy to directly compress air for fermenter aeration. + Substantial contribution by switch to the use of sustainably sourced raw materials (2G food processing side streams) for food production: TR§10-1d.[41] Significant GHG emissions savings are expected; S2.1.1. + Use of 2G biomass and MP production substantially contribute to strengthening land carbon sinks (*e.g.*, avoiding deforestation (see below), and restoration of croplands, grasslands, wetlands): TR§10-1f. + Contributes to reducing livestock farming (16.5% of global GHG emissions)[1]; MP production has far lower carbon footprint; S2.1.1. + Upon launch of [redacted]echnologies, they contribute to the green economy (green skills and jobs), with a climate coefficient of 100%.
Climate change adaptation	+ Use of 2G feestocks at pilot level, minimisation of process	+ By diversification of the food pattern, [redacted] contributes to increasing the resilience of the global food industry and avoiding

1.2 Methodology *[e.g. 15 pages]*

- Describe any national or international **research and innovation activities** whose results will feed into the project, and how that link will be established; [e.g. 1 pages]
- Explain how expertise and methods from different disciplines will be brought together and integrated in pursuit of your objectives. If you consider that an **inter-disciplinary approach** is unnecessary in the context of the proposed work, please provide a justification. [e.g. 1/2 page]
- For topics where the work programme indicates the need for the **integration of social sciences and humanities**, show the role of these disciplines in the project or provide a justification if you consider that these disciplines are not relevant to your proposed project. [e.g. 1/2 page]

Relevant national and international activities

HOLiFOOD partners are, and have been involved, in many national and international projects relevant for this topic, often in a leading role. HOLiFOOD will build on the results of these projects and establish links with ongoing initiatives through a dedicated task in WP5/WP7. HOLiFOOD will benefit from > 15 finalized EU framework projects in which the HOLiFOOD partners had a leading role such as SAFEFOODS, MoniQA Network of Excellence, MycoKey, MytoolBox, EU-China-Safe, AGINFRA+ or EFSA funded projects RiskBenefit4EU, Aquarius, DEMETER, & RAKIP. Furthermore, HOLIFOOD will seek to exchange data, models and enable shared linked data and model infrastructure with ongoing relevant initiatives. Examples of the projects are listed in the Table below including the role of the HOliFOOD partner.

Project (acronym), Research conducted, HOLiFOOD partner involved, role and Input to WP
H2020 "FOODSAFETY4EU" (2021-2023). CNR (coordinator). APRE (partner)
Design, develop and release a multi-stakeholder platform for the future European Food Safety System (FSS). The platform aims to establish a network of FSS actors at national, European and international level. Input to WP4 and WP5.
IAEA Research Agreement No. 22299/RO (2017-2022). CNR (pri
"Development, validation and harmonization of analytical methods for multiple co feed". The project will contribute to delivering of analytical methods for multi harmonized guidelines for multi-contaminant methods validation. Input to WP2.
H2020 "MycoTwin" (2020-2023). CNR (partner)
The goal is to strengthen effective and sustainable mycotoxin management for min by exchange of knowledge and new pre- and post-harvest measures. The project wil from the planning of the cropping system to crop cultivation, harvest, stora consumption. Input to WP2 and WP4.
H2020 "SafeConsume" (2017-2022). INRAE (partn
Safer food through changed consumer behaviour: Effective tools and produc education and a food safety policy reducing health burden from foodborne illnesse
H2020 "PROTECT" (2019-2022). INRAE and CREME (
This project will develop predictive modelling approaches (including Multicriteria the effects of climate change on food safety. Input to WP1, WP3 and WP6.
Horizon Europe Partnership: PARC (2022-2028). ANSES (coordinator). P
Partnership for the Assessment of Risk from Chemicals; European Partnership u WP1 and WP6
EFSA "OC/EFSA/SCER/2020/02 (2021-2024)". WESR (

Example

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

Example HE

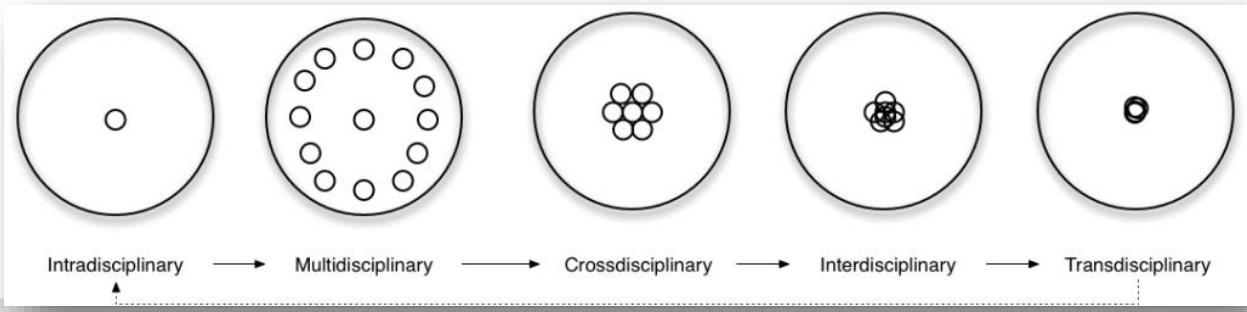
1.2.2 Link with other R&I activities

The [redacted]tionale and ambition have robust foundation on knowledge and networks that have been developed in recent or ongoing EU projects and initiatives, in which [redacted]artners are involved. Notably, the following R&D projects (Table 4) are considered relevant to develop the [redacted]ncept:

Project	Outcome and valorisation in [redacted]
FoodSIVI ***UOX, DAN***	The food system impact valuation initiative (FoodSIVI) collaborative project led by UOX raises awareness & perform research on food costing impact and its internalisation in the food system by *1)* running an annual meeting (over 200 civil society organizations and business), *2)* webinars (over 300 participants, *3)* co-production of reports (e.g. with WBCSD, 2019), *4)* developing consistent dataset of marginal damage costs. FoodSIVI contributes a stakeholder and practitioner network for development and dissemination o[redacted]tivities (WP4 and WP7), and a foundation dataset for marginal costing of food system externalities (WP1).
True Cost ***SMI***	"True Cost – from Costs to Benefits in Food and Farming" is an initiative of various market leaders in the food and farming sector who want to develop, pilot and implement integrated impact accounting guidelines. Within the True Cost, several social and ecological indicators have been developed with the goal of practical feasibility. The knowledge of how to develop indicators within the context of businesses will suppor[redacted] considering perspectives of businesses while developing indicators based on current scientific research.
SUSFANS - ***WR***	SUSFANS identifies how food production and nutritional health in the EU can move towards a diet that supports sustainable food consumption and production.[redacted]l use and enhance the

Disciplinarities

- **Intradisciplinary**: working within a single discipline
- **Multidisciplinary**: people from different disciplines working together, each drawing on their disciplinary knowledge
- **Crossdisciplinary**: viewing one discipline from the perspective of another
- **Interdisciplinary**: integrating knowledge and methods from different disciplines, using a real synthesis of approaches
- **Transdisciplinary**: creating a unity of intellectual frameworks beyond the disciplinary perspectives; a shared conceptual model of the problem that integrates and transcends each of their separate disciplinary perspectives



Source. Alexander Refsum Jensenius, www.arj.no/2012/03/12/disciplinarities-2/

Social Science and Humanities

Social sciences, education, business and law

- **Social and behavioural sciences**: economics, economic history, political science, sociology, demography, anthropology (except physical anthropology), ethnology, futurology, psychology, geography (except physical geography), peace and conflict studies, human rights.
- **Education science**: curriculum development in non-vocational and vocational subjects, educational policy and assessment, educational research.
- **Journalism and information**: journalism, library and museum sciences, documentation techniques, archival sciences.
- **Business and administration**: retailing, marketing, sales, public relations, real estate, finance, banking, insurance, investment analysis, accounting, auditing, management, public and institutional administration.
- **Law**: law, jurisprudence, history of law.

Humanities and the arts

- **Humanities**: religion and theology, foreign languages and cultures, living or dead languages and their literature, area studies, native languages, current or vernacular language and its literature, interpretation and translation, linguistics, comparative literature, history, archaeology, philosophy, ethics.
- **Arts**: fine arts, performing arts, graphic and audio-visual arts, design, crafts.

Project requirements - SSH flagged topics

Applicants should ensure that:

- contributions from SSH disciplines are integrated throughout their proposed project, and
- the actions required, participants and disciplines involved as well as the added value of SSH contributions are clearly stated in the proposal

The SSH methodologies used in the projects should be described, or if the applicant consortium considers that SSH is not relevant to their particular proposal, they should explain why

- Where relevant, applicants are also encouraged to include contributions from the SSH in a project proposal under any call, even if it is not SSH-flagged

1.2 Methodology *[e.g. 15 pages]*

- Describe how the **gender dimension** (i.e. sex and/or gender analysis) is taken into account in the project's research and innovation content [e.g. 1 page]. If you do not consider such a gender dimension to be relevant in your project, please provide a justification.

Note: This section is mandatory except for topics which have been identified in the work programme as not requiring the integration of the gender dimension into R&I contentfication.

Note: Remember that that this question relates to the content of the planned research and innovation activities, and not to gender balance in the teams in charge of carrying out the project.

Note: Sex and gender analysis refers to biological characteristics and social/cultural factors respectively. For guidance on methods of sex / gender analysis and the issues to be taken into account, please refer to http://ec.europa.eu/research/swafs/gendered-innovations/index_en.cfm?pg=home

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

Gendered Innovations 2: How inclusive analysis contributes to research and innovation

Gender dimension

- **Integrating sex and gender analysis into R&I content improves the scientific quality and societal relevance of the produced knowledge, technologies and innovation. It:**
- adds value to research and innovation in terms of excellence, creativity, rigor, reproducibility and business opportunities
- helps researchers and innovators question gender norms and stereotypes, and rethink standards and reference models
- leads to an in-depth understanding of all people's needs, behaviours, and attitudes
- contributes to the production of goods and services better suited to new markets
- is crucial to secure Europe's leadership in science & technology and support inclusive and sustainable growth

Gender dimension in the proposals

Reflect on why sex and/or gender could matter:

- Think about and present the ways in which taking into account the gender dimension will **provide added value** in terms of creativity, excellence, and return on investment, both from public and private perspectives.
- Consider the production of new knowledge on gender: Consider what is already known in your area in terms of the gender dimension (e.g. related scientific literature) and identify **what is missing**. In many areas, gender knowledge still needs to be generated.
- Include sex and gender aspects **as part of a multidisciplinary approach**: Reflecting on sex and gender considerations in relation to health, transport, energy, security, etc. is a great opportunity to foster cooperation between scientists with gender expertise and others. It helps concepts cross the borders of scientific fields and encourages research methods to evolve.
- Consider social categories/factors intersecting with sex and gender: **the way a research problem is formulated** will determine which intersecting variables are relevant for analysis. Intersectional research should be designed to illuminate the multiplicative effects of different, but interdependent, categories and factors

1.2 Methodology *[e.g. 15 pages]*

- Describe how appropriate **open science** practices are implemented as an integral part of the proposed methodology. Show how the choice of practices and their implementation are adapted to the nature of your work, in a way that will increase the chances of the project delivering on its objectives [e.g. 1 page]. If you believe that none of these practices are appropriate for your project, please provide a justification here.

*Note: **Open science** is an approach based on open cooperative work and systematic sharing of knowledge and tools as early and widely as possible in the process. Open science practices include early and open sharing of research (for example through preregistration, registered reports, preprints, or crowd-sourcing); research output management; measures to ensure reproducibility of research outputs; providing open access to research outputs (such as publications, data, software, models, algorithms, and workflows); participation in open peer-review; and involving all relevant knowledge actors including citizens, civil society and end users in the co-creation of R&I agendas and contents (such as citizen science).*
Note: Please note that this question does not refer to outreach actions that may be planned as part of communication, dissemination and exploitation activities. These aspects should instead be described below under 'Impact'

Example HE

1.2.8 Open Science practices relevance for our proposal

Our project fully complies with the principles of open science: **(A) Systematic sharing of knowledge and tools as early and widely as possible**: i) preregistration, registered reports and preprints, will be used whenever applicable; ii) measures to ensure reproducibility of research outputs: pending the need of confidentiality and IPR, we will ensure a timely access to research results including (meta)data, to ensure re-use and reproducibility (S1.2.9). Open access journals will be preferred, *e.g.,* Open Research Europe, and other open access repositories (*e.g.,* Zenodo). Data, protocols, software and other tools underlying the publications will be released at the same time, either via Zenodo or in discipline-specific repositories, providing the DOI to the publication. **(B) Involving all relevant knowledge actors**: we will apply an anticipatory approach, to favour that the needs, expectations, and key features relevant for stakeholders in the full value chain are considered during the development strategy, in line with a Responsible Research and Innovation (RRI) approach. This will allow to better align the process and its results with the values, needs and expectations of society and will help the consortium to ensure broader social support during the development of food ingredients and products. We will enable citizens to contribute their time, observations, and expertise to assist and inform the scientific research process, for example, via participation in tastings panels. Open collaboration within the scientific community will be ensured via joint activities with other funded projects and initiatives. Sections 1.2.2 and 2.1.1 describe stakeholder engagement in detail. In the workplan, stakeholder feedback is actively considered in WP3 (consumers), WP4 (value chain stakeholders) and WP6 (policymakers).

Open science in Horizon Europe

- Open science is an approach based on open cooperative work and systematic sharing of knowledge and tools as early and widely as possible in the process. It has the potential to increase the quality and efficiency of research and accelerate the advancement of knowledge and innovation by sharing results, making them more reusable and improving their reproducibility. It entails the involvement of all relevant knowledge actors.
- **Horizon Europe moves beyond open access to open science** for which it features a comprehensive policy implemented from the proposal stage to project reporting.

Open science in Horizon Europe

- **Open science practices include** early and open sharing of research (for example through preregistration, registered reports, pre-prints, or crowd-sourcing); research output management; measures to ensure reproducibility of research outputs; providing open access to research outputs (such as publications, data, software, models, algorithms, and workflows); participation in open peer-review; and involving all relevant knowledge actors including citizens, civil society and end users in the co-creation of R&I agendas and contents (such as citizen science).

Mandatory open science practices

Some **open science practices** are mandatory for all beneficiaries per the grant agreement. They concern:

- **open access** to scientific publications under the conditions required by the grant agreement
- **responsible management of research data** in line with the FAIR principles of 'Findability', 'Accessibility', 'Interoperability' and 'Reusability', notably through the generalised use of data management plans, and open access to research data under the principle 'as open as possible, as closed as necessary', under the conditions required by the grant agreement
- **information about the research outputs/tools/instruments** needed to validate the conclusions of scientific publications or to validate/re-use research data
- **digital or physical access to the results needed** to validate the conclusions of scientific publications, unless exceptions apply
- **in cases of public emergency**, if requested by the granting authority, immediate open access to all research outputs under open licenses or, if exceptions apply, access under fair and reasonable conditions to legal entities that need the research outputs to address the public emergency

Recommended open science practices

Non-exhaustive list of practices:

- involving all relevant knowledge actors, including citizens
- early and open sharing of research
- output management beyond research data
- open peer-review

Citizen, civil society and end-user engagement

- Provide clear and succinct information **on how citizen, civil society and end-user engagement will be implemented** in your project, where/if appropriate. The kinds of engagement activities will depend on the type of R&I activity envisaged and on the disciplines and sectors implicated.
- **This may include**: co-design activities (such as workshops, focus groups or other means to develop R&I agendas, roadmaps and policies) often including deep discussion on the implications, the ethics, the benefits and the challenges related to R&I courses of action or technology development; co-creation activities (involving citizens and/or end-users directly in the development of new knowledge or innovation, for instance through citizen science and user-led innovation); and co-assessment activities (such as assisting in the monitoring, evaluation and feedback to governance of a project, projects, policies or programmes on an iterative or even continual basis).
- The extent of engagement in the proposal could range from one-off activities alongside other methodological approaches to being the primary focus or methodological approach of the project itself. Engagement will require **resources** and **expertise** and is therefore often conducted by dedicated interlocutor organisations or staff with relevant expertise.

Important documents and resources

- **Model grant agreement** (MGA), article 17 –lists the obligations you have, i.e. the requirements of the policy
- **Work Programme General Annexes**, evaluation criteria described; open science- a couple of additional obligations outlined there (access for validation and public emergency).
- **Proposal template -** shows where and how to address open science- definition of open science practices
- **Annotated Grant Agreement** (AGA), article 17- offers explanations and guidance for open science requirements
- **Horizon Europe Programme Guide** – presents what is required at proposal stage and how open science is evaluated; open science practices analysed and resources provided-useful for proposers and evaluators

1.2.6 Open science

Within FOODCoST principles of Open Science will be implemented. Beyond the strict research community, FOODCoST follows **a multi-actor approach** (see previous sections) Regarding consumers, FOODCoST focuses on inclusiveness and takes into account differences in culture, gender, SEP, and geographic aspects (WP2, 3, 5). Regarding policy makers, actors in the value chain (farmers, food industry, retail and caterers) and NGO's at the international, national, regional level will be involved discussing designs and assumptions of studies and outcomes and results (WP4) and in the case studies (WP5). Networking with other projects and aligned organisations working on internalisation of externalities is seen as essential for the project (WP4, and WP7). FOODCoST website will have a dedicated section to share research with researchers outside the project, which will be advocated via the network of the FOODCoST community. After registration, researchers can enter this dedicated section. They 1) can provide feedback on the scientific approach, ethical aspects and social inclusiveness of research designs or concept surveys, before the experimental work is done, 2) have access to methods aiding the harmonisation of research, and 3) have access to the data after publication. Announcements, when new research is available, will be made via Twitter and LinkedIn. Open Science will be embedded throughout the whole scientific process. For **the management of research data** a DMP will be developed (see 1.2.6 and WP8). To realize **the early and open sharing of the** FOODCoST partners will Open Access pre-register protocols and when feasible publish registered reports through preprints (by using servers like bioRxivor for Life sciences or multidisciplinary like Preprints, Zenodo). Furthermore, stakeholders will discuss the design of case studies (WP5), scenarios (WP6) in dedicated workshops (WP4). **Digital access to the results** will be organised via DANS-EASY, EOSC or FNH-RI depending on the type of data/results. Regarding **the open access** to "increase the circulation and exploitation of knowledge" (European Parliament, 2013): all outcomes will be made accessible in Open Access and free of charge, as under the terms and conditions laid down in the Model grant agreement. FOODCoST chooses the "gold" Open Access model as first preference and will make all reports and datasets Open Access and freely available upon publication through the trusted repository. Connection to the tools proposed by the European Commission (e.g. Open Research Publishing Platform), which will grant access to the publications and to a bibliographic metadata in a standard format including information will be part of the publication procedure. Protection of knowledge will be ensured by adopting licenses which enable free circulation of documents while safeguarding authors' (and the project's) IPR; for peer-reviewed articles the CC-BY, CC-BY-NC or CC-BY-ND licence. Adequate protection of project, Commission's image and the content integrity will be ensured. Metadata of deposited publications will be open under a Creative Common Public Domain Dedication or equivalent, in line with the FAIR principles and provide information about: publication (author(s), title, date of publication, publication

Example

1.2 Methodology *[e.g. 15 pages]*

- **Research data management** and management of other research outputs: Applicants generating/collecting data and/or other research outputs (except for publications) during the project must provide maximum 1 page on how the data/ research outputs will be managed in line with the **FAIR principles** (Findable, Accessible, Interoperable, Reusable), addressing the following (the description should be specific to your project): [1 page]

- **Types of data/research outputs** (e.g. experimental, observational, images, text, numerical) and their estimated size; if applicable, combination with, and provenance of, existing data.
- **Findability of data/research outputs**: Types of persistent and unique identifiers (e.g. digital object identifiers) and trusted repositories that will be used.
- **Accessibility of data/research outputs**: IPR considerations and timeline for open access (if open access not provided, explain why); provisions for access to restricted data for verification purposes.
- **Interoperability of data/research outputs**: Standards, formats and vocabularies for data and metadata.
- **Reusability of data/research outputs**: Licenses for data sharing and re-use (e.g. Creative Commons, Open Data Commons); availability of tools/software/models for data generation and validation/interpretation /re-use.
- **Curation and storage/preservation costs**; person/team responsible for data management and quality assurance.

1.2 Methodology *[e.g. 15 pages]*

*Note: Proposals selected for funding under Horizon Europe will need to develop a detailed **data management plan** (DMP) for making their data/research outputs findable, accessible, interoperable and reusable (FAIR) as a deliverable by **month 6** and revised towards the end of a project's lifetime.*
Note: For guidance on open science practices and research data management, please refer to the relevant section of the HE Programme Guide on the Funding & Tenders

Data Management Plan Template

Accessible via Funding and Tender>Reference Documents>Project Reporting Templates:
https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/reference-documents;programCode=HORIZON

Example HE

1.2.9 Data management

Data quality assurance measures and data management are at the heart of creditable scientific practice. This is acknowledged by the endorsement of the FAIR data principles (Findable, Accessible, Interoperable, and Re-usable) and their enforcement by the European Commission, also in the frameworks of Open Science practices. A Data Management Plan (DMP, WP1) based on the principle "as open as possible, as closed as necessary" will be prepared by M6 and continuously updated. The data management procedure should maximise the internal re-use of data as well as facilitate the process of sharing them outside the consortium, if applicable. **The DMP will also offer a clear process to decide which data can be released in open access and when.**

Table 7 Data Management – compliant with FAIR data principles endorsed by the European Commission.

Types of data/ research outputs	APPETITE uptakes raw data (primary data) from various data streams and partners as part of its data harvesting activity. Data will be either in the format of numerical values, in *e.g.,* excel sheets, text, or images. We estimate that the generated data will be within 1TB (Terabytes) per partner.
Findability	Data repository that provides a DOI upon deposition will be selected – discipline-specific repository will be preferred, *e.g.*, Uniprot (proteins), GenBank (genomes), Gene Expression Omnibus (transcriptomes); or community-recognised; alternatively, OpenAire recognised repository Zenodo.
Accessibility	We will make data open as early as possible. For IP sensitive data, it will be made available after 5 year of project closure (unless IP rights are claimed by any partner within this time). Data **underlying publications** (data that are mentioned or used to derive conclusions in scientific publications) should always be shared upon the paper publication.
Inter-operability	The Dublin core standard will be considered as a guideline.

Proposal template Part B: technical description

1. Excellence

1.1 Objectives and ambition *[e.g. 4 pages]*

1.2 Methodology *[e.g. 15 pages]*

2. Impact

2.1 Project's pathways towards impact *[e.g. 4 pages]*

2.2 Measures to maximise impact - Dissemination, exploitation and communication *[e.g. 5 pages]*

2.3 Summary (Canvas table)

3. Quality and efficiency of the implementation

3.1 Work plan and resources *[e.g. 14 pages – including tables]*

3.2 Capacity of participants and consortium as a whole *[e.g. 3 pages]*

2.1 Project's pathways towards impact [e.g. 4 pages]

- Provide a **narrative** explaining how the project's results are expected to make a difference in terms of impact, **beyond the immediate scope and duration of the project**. The narrative should include the components below, tailored to your project.

a) Describe the unique contribution your project results would make towards **(1)** the **outcomes** specified in this topic, and **(2)** the **wider impacts**, in the longer term, specified in the **respective destinations** in the work programme.

Be specific, referring to the effects of your project, and not R&I in general in this field.

State the target groups that would benefit. Even if target groups are mentioned in general terms in the work programme, you should be specific here, breaking target groups into particular interest groups or segments of society relevant to this project.

***The outcomes and impacts of your project may**:*

- ***Scientific**, e.g. contributing to specific scientific advances, across and within disciplines creating new knowledge, reinforcing scientific equipment and instruments, computing systems (i.e. research infrastructures);*
- ***Economic/technological**, e.g. bringing new products, services, business processes to the market, increasing efficiency, decreasing costs, increasing profits, contributing to standards' setting, etc.*
- ***Societal** , e.g. decreasing CO2 emissions, decreasing avoidable mortality, improving policies and decision making, raising consumer awareness.*

Only include such outcomes and impacts where your project would make a significant and direct contribution. Avoid describing very tenuous links to wider impacts. However, include any potential negative environmental outcome or impact of the project including when expected results are brought at scale (such as at commercial level). Where relevant, explain how the potential harm can be managed.

2.1 Project's pathways towards impact [e.g. 4 pages]

b) Describe any **requirements and potential barriers** - arising from factors beyond the scope and duration of the project - that may determine whether the desired outcomes and impacts are achieved. These may include, for example, other R&I work within and beyond Horizon Europe; regulatory environment; targeted markets; user behaviour. Indicate if these factors might evolve over time. Describe any **mitigating measures** you propose, within or beyond your project, that could be needed should your assumptions prove to be wrong, or to address identified barriers.

*Note that this **does not include the critical risks inherent to the management of the project** itself , which should be described below under 'Implementation'*

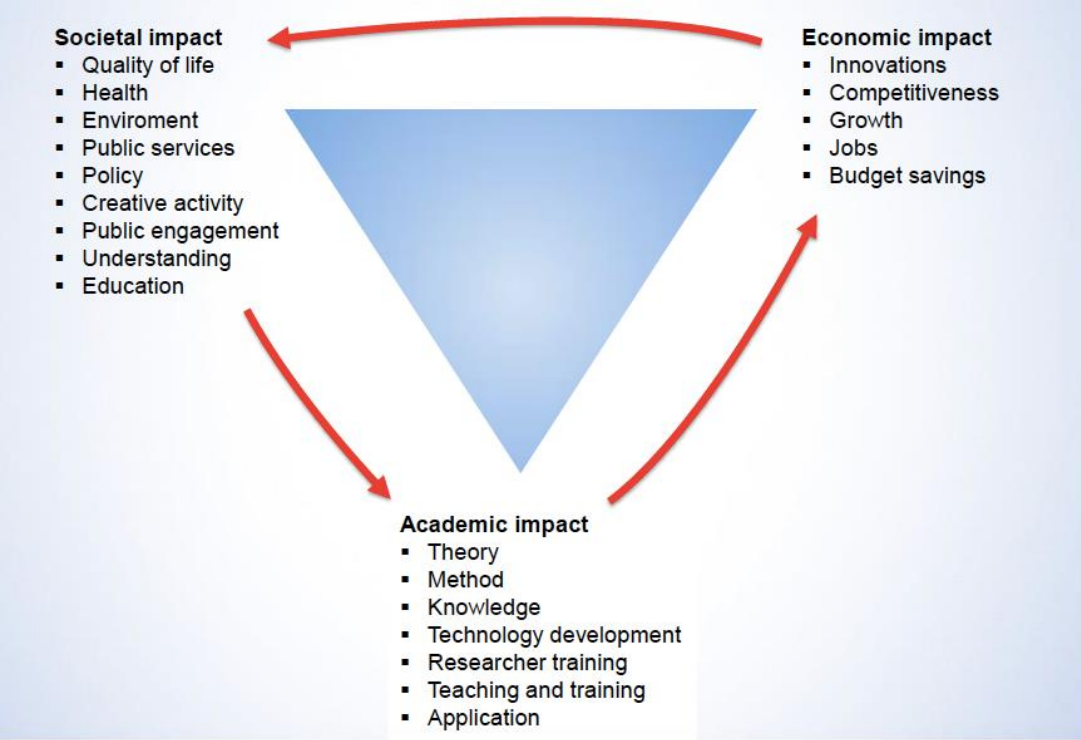
c) Give an indication of the **scale and significance** of the project's contribution to the expected outcomes and impacts, should the project be successful. Provide quantified estimates where possible and meaningful.

*'**Scale**' refers to how widespread the outcomes and impacts are likely to be. For example, in terms of the size of the target group, or the proportion of that group, that should benefit over time; '**Significance**' refers to the importance, or value, of those benefits. For example, number of additional healthy life years; efficiency savings in energy supply.*

*Explain your baselines, benchmarks and assumptions used for those estimates. Wherever possible, **quantify your estimation of the effects that you expect from your project**. Explain assumptions that you make, referring for example to any relevant studies or statistics. Where appropriate, try to use only one methodology for calculating your estimates: not different methodologies for each partner, region or country (the extrapolation should preferably be prepared by one partner).*

Your estimate must relate to this project only - the effect of other initiatives should not be taken into account.

The impact in different contests



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CULTURAL
Contribution to understanding of ideas and reality, values and beliefs.

ECONOMIC
Contribution to the sale price of products, a firm's costs and revenues (micro level), and economic returns either through economic growth or productivity growth (macro level).

ENVIRONMENTAL
Contribution to the management of the environment, for example, natural resources, environmental pollution, climate and meteorology.

HEALTH
Contribution to public health, life expectancy, prevention of illnesses and quality of life.

POLITICAL
Contribution to how policy makers act and how policies are constructed and to political stability.

SCIENTIFIC
Contribution to the subsequent progress of knowledge, the formation of disciplines, training and capacity building.

SOCIAL
Contribution to community welfare, quality of life, behaviour, practices and activities of people and groups.

TECHNOLOGICAL
Contribution to the creation of product, process and service innovations.

TRAINING
Contribution to curricula, pedagogical tools, qualifications

European Science Foundation Impact Classifications

Impact

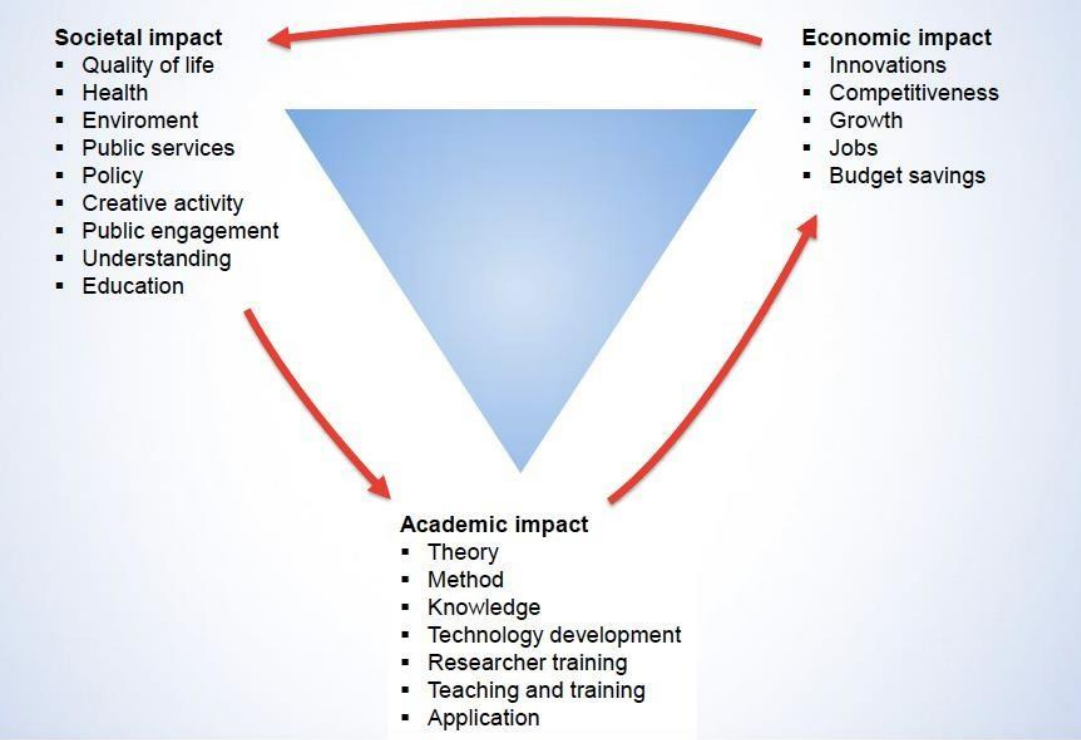
IMPACT = THE BENEFITS DERIVED FROM THE INNOVATION;

The larger the benefit, the larger the impact

- Impact is not limited to economic or commercial aspects;
- it can also be societal, environmental, technical, educational, or scientific

It must go beyond the life-cicle of the project

The impact in different contests



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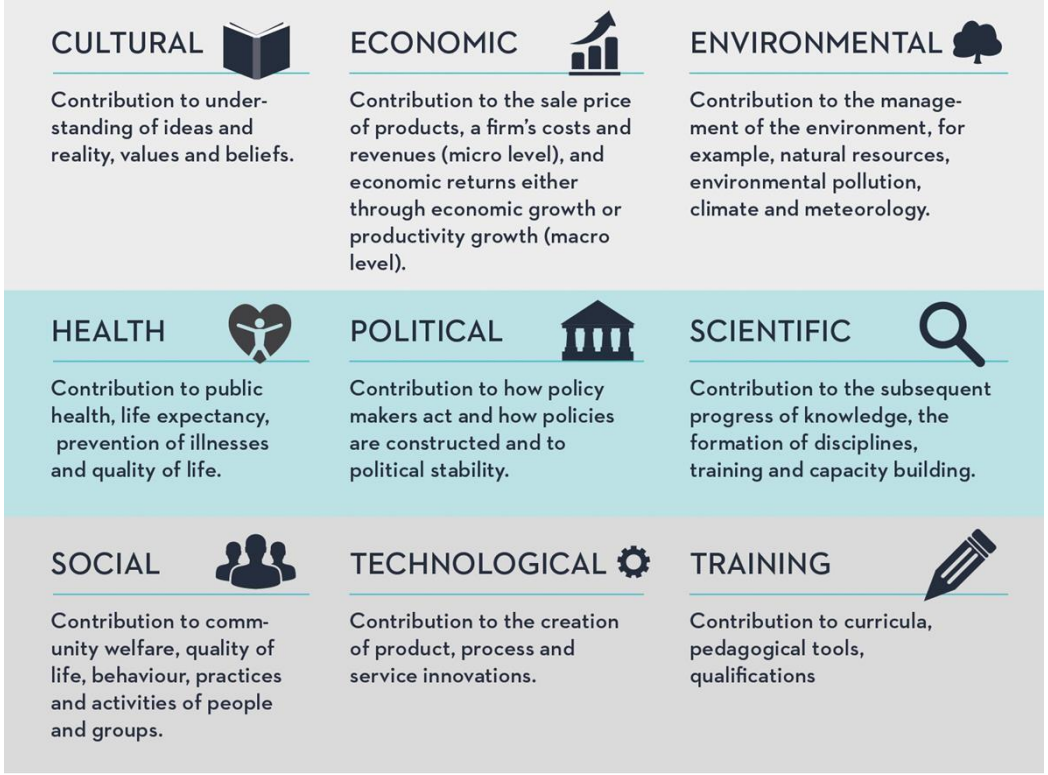

European Science Foundation Impact Classifications

APRE

Knowledge production

- **New peer reviewed publications and citations**
- **Presentations to national and international conferences**
- New ‘grey literature’ including research reports, interviews, policy briefings, editorials, newsletters, web articles, social media, presentations with/to stakeholders
- New systematic reviews or findings
- Increased availability of evidence including open access data
- **Establishment of new datasets, databases or research data**

Copyright_Campus Engage

Economic impact

- **New or expanded products, licenses, or services created**
- Spinout or start-up businesses registered
- Improved performance or processes adopted
- **Employment created or increased**
- Improved international reputation for investment in Ireland
- More efficient use of public resources
- Leveraging of national and international funding
- Increased income generated
- Reduced redundancies and costs

Copyright_Campus Engage

Environmental impacts*

- Improving awareness and understanding of climate change and its consequences
- **Stimulation of public debate and awareness on the environment**
- Provision of information to civil and civic societies
- **Environmental policy or planning decisions are evidence-informed**
- Improved management or conservation of natural resources to advance climate justice
- **Improved management of environmental risks or hazards**
- Improved private or public services to meet relevant environmental policies or goals
- New/improved technologies or processes to reduce pollution and/or the impact of pollutants
- Improvement in sustainable use of resources for resilient societies
- Improved understanding of health risks to livestock and disease risks to crops for better health and food security
- Improved built environment infrastructure including transportation systems and land use.

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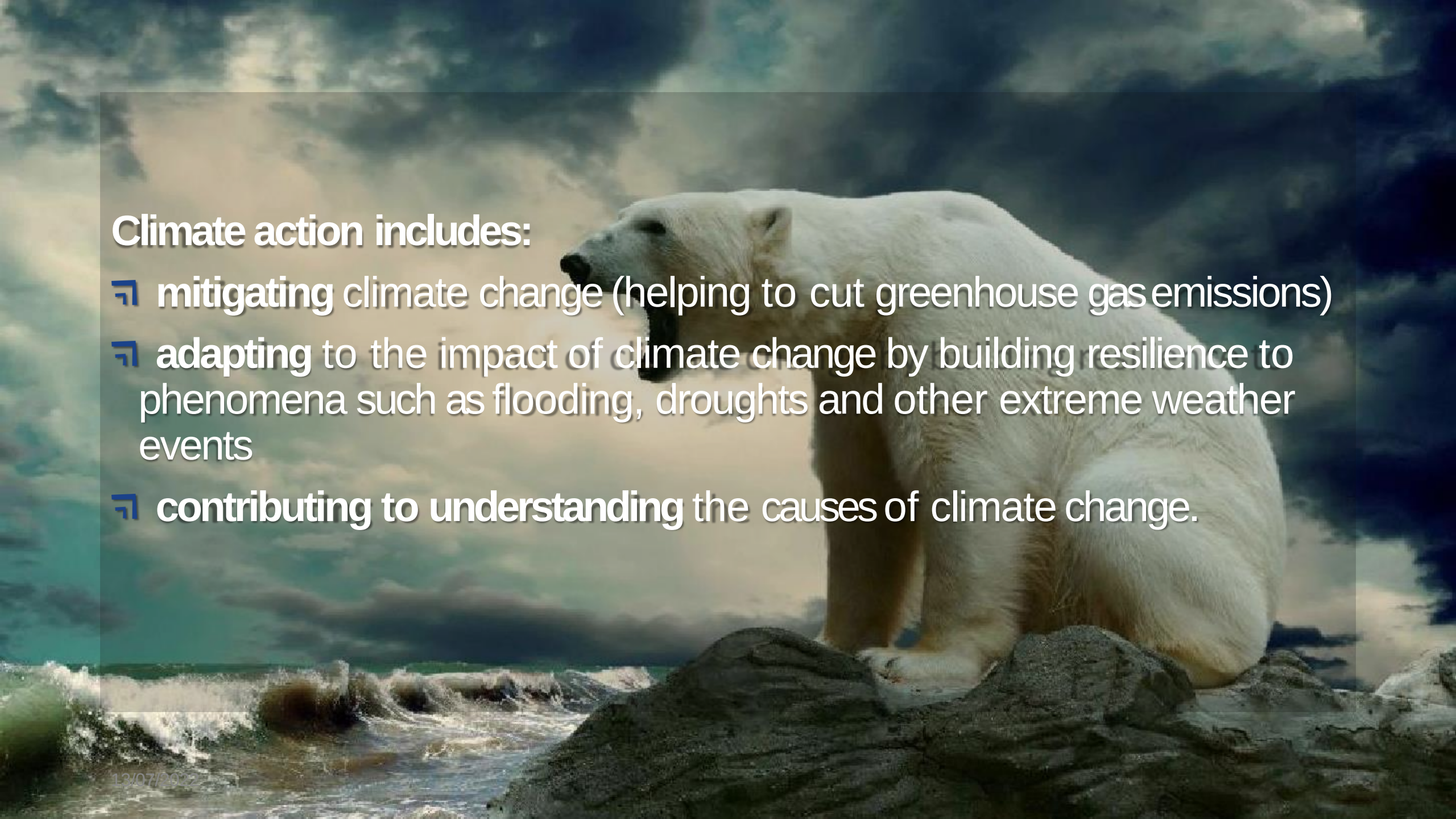


Climate action includes:

- **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.

Activities contributing to climate action

- energy efficiency, energy savings or energy recovery in any sector;
- renewable non-fossil energy (e.g. wind, solar, aero-thermal, geothermal, hydrothermal, ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas, biogases) & related infrastructure including energy storage and 'smart grids';
- low-carbon technologies, manufacturing processes, goods & services;
- carbon capture & storage;
- reducing road & air traffic emissions; encouraging cycling, walking & use of public transport systems, inland waterways & short sea shipping,
- biological sequestration/conservation of CO_2 emissions (e.g. afforestation, re-vegetation, forest/cropland management, reduced tillage, soil maintenance/remediation), including sinks & reservoirs of greenhouse gases (e.g. soil, peatlands, wetlands, forests);
- eliminating or substantially reducing emissions of other greenhouse gases such as methane, N_2O, PFCs, HFCs, SF_6 & NF_3;
- building resilience & reducing vulnerability to climate-related disasters (heatwaves, floods, extreme weather events, etc.), covering any sector including transport, energy, supply chains, communication networks & other infrastructure, planning, insurance; risk prevention & risk/disaster management, ICT for early warning systems;
- combating heat effects &/or adapting to drought, including water efficiency measures;
- strengthening coastal defences against erosion, storm surges & sea-level rise;
- taking advantage of any opportunities that may arise as a result of climate change;
- integrating climate change concerns in specific policy activities, developing capacity, strengthening the regulatory & policy framework;
- socioeconomic issues associated with climate change options, such as behavioural patterns, societal acceptance & barriers to uptake of policies or technologies;
- understanding climate change processes &/or effects, including sea ice/ice sheet/glaciers, permafrost, air and sea surface temperatures, precipitation, biodiversity loss, movement or distribution of plant/fish/animal species, ocean acidity, crop yields, hydropower potential, seasonal tourism patterns, habitats for disease vectors, etc.

Health & wellbeing impacts

- National or international health and wellbeing outcomes due to new or improved interventions, services, drug/treatments/therapies, diagnostic or medical technologies, care practices or processes.
- **Improved health and wellbeing at an individual level**
- Reduced inequalities in health status and health and social care utilisation through information and policies targeting vulnerable/disadvantaged groups
- **Increased efficiency in the delivery of public health and social services, as well as health-related interventions and services delivered by NGOs and others in the community**
- Decisions by public, private and voluntary stakeholders informed by research evidence
- Improved quality of life due to improved health and wellbeing services/interventions, products or processes
- Enhanced animal health and welfare
- **Reduction in costs and delays for treatments, interventions, practices, and processes due to newly**
- Developed or improved alternatives (e.g. new treatments, interventions, drugs, devices or diagnostics)
- Mitigation of risks to health or well-being through preventative or early intervention services and measures
- Increase in number of participants enrolled in clinical and community-based trials
- Increase in number of individuals engaging in healthy lifestyles

Social and cultural impacts

- Enhanced opportunities for creativity, self-expression and human development
- **Increased appreciation and/or design of cultural services such as museums, galleries, libraries**
- Attitudinal changes, education and understanding
- Stimulation or informing of public debate or interest
- **Greater awareness of the public's role and responsibility in contributing to solving social challenges**
- **Increased confidence of the general public to address issues affecting them**
- Exchange of public tacit knowledge to inform new or improved products, services and processes
- Improved quality of life through improved access to services
- Local, regional or national development and regeneration plans
- New processes for responding to public research needs and partnerships
- Improved human performance due to new or changed technologies or processes.

Policy & product developmentimpacts

- **Implementation, revision or evaluation of policies to improve efficiency, efficacy of public services, products and processes, and government regulation**
- **Policy and related budget decisions, changes to legislation, regulations, guidelines, or funding are evidence-informed**
- Revised educational curricula, across all levels, informed by new knowledge
- Commissioned reports or projects from government departments or agencies
- Policy briefing papers, practical handbooks and other grey material produced for / disseminated to relevant professionals, policy makers, and civic and civil society organisations
- Patents and other IP applications and award of commercialisation support grants to develop products or services
- **License agreements and revenues generated as a result of spin-out companies or formal collaborative**
- Partnerships between researchers and relevant research stakeholders.

Professional & public service impacts

- **New or improved professional standards, working practices, guidelines or training**
- Quality, efficiency or productivity of a service
- **Professional body practices are evidence-informed**
- Practice or process changes in companies or other organisations through capacity building
- **Increased inter-agency collaboration**
- Improved services evaluation methods and technologies
- Improvements in risk management across public and private sectors
- Advancements against strategic plans.

Internationalisation impact

- **Success of researchers and relevant entities in attaining international research funding, for example, through EU Framework programmes**
- **Attraction and retention of international talent**
- New connections to international expertise providing access to state-of-the-art knowledge, ideas and publics
- Leveraging of international funding through industrial and collaborative research
- New national/international collaborations or strategic partnerships formed with other research teams, community and industry partners or relevant agencies.
- **Increased global social responsibility, cultural awareness, and languages**
- Contribution to international relations and the international profile and reputation of EU.

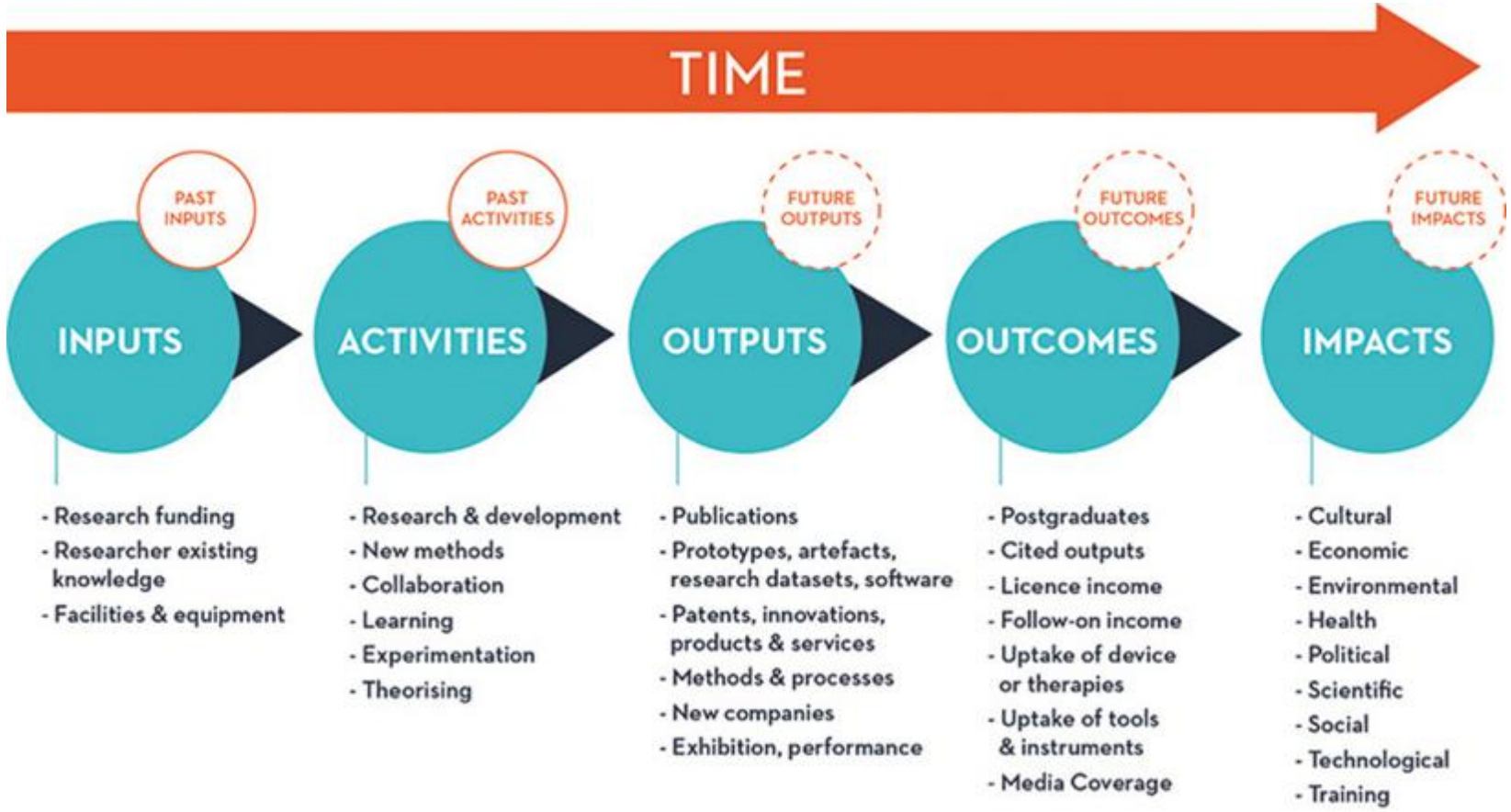
Capacity-building impacts

- **Education, training and improved skills of current and future populations and workers for public and industry services, and academia**
- Improved relevancy of educational curricula at all levels
- Higher degrees and research experience obtained by research personnel
- **Retention rates of research personnel in national research system**
- Increased leveraged funding due to number and level of highly skilled researchers
- Increased national, EU, international social capital
- Increased levels of engagement of members of the public with research, and corresponding levels of confidence in public-science dialogue
- Spin-off projects developed and further research funding leveraged
- Development and use of novel research techniques
- Establishment of new datasets, databases or research data lodged in national database

The impact journey

The impact journey traces research impact over time including identification of distinctive stages in its development, and its subsequent diffusion between disciplines and the wider society.

The diagram below demonstrates the various pathways to impact and distinguishes between inputs, activities, outputs, outcomes and impacts.



Impact Logic

Strategic Plan*	EC Policy Priority	Based on the Political Guidelines for the European Commission 2019-2024 with a focus on three key priorities: Green Deal, Europe fit for the Digital Age, and Economy that Works for People	General policy level
	Key Strategic Orientation	Set of strategic objectives within the EC policy priorities where R&I investments are expected to make a difference	Programme level
	Expected Impacts	Wider effects on society (including the environment), the economy and science, enabled by the outcomes of R&I outcomes (long-term)	Cluster level
Work Programme	Destination	Packages of actions around which each Work Programme part within Pillar II will be designed. Destinations are a series of coherent packages aimed at contributing to the expected impacts set out in the Strategic Plan. The Destinations will provide the policy narrative for the calls and actions included in the WP. In the WP, the text of the Destination should reflect the expected impact as set out in the Strategic Plan.	Cluster WP Level
	Call for proposal	Each Destination will be implemented by means of calls for proposals. Under Horizon Europe, we need to align our definition of a 'call' with the Financial Regulation and with the common approach across all MFF programmes.	

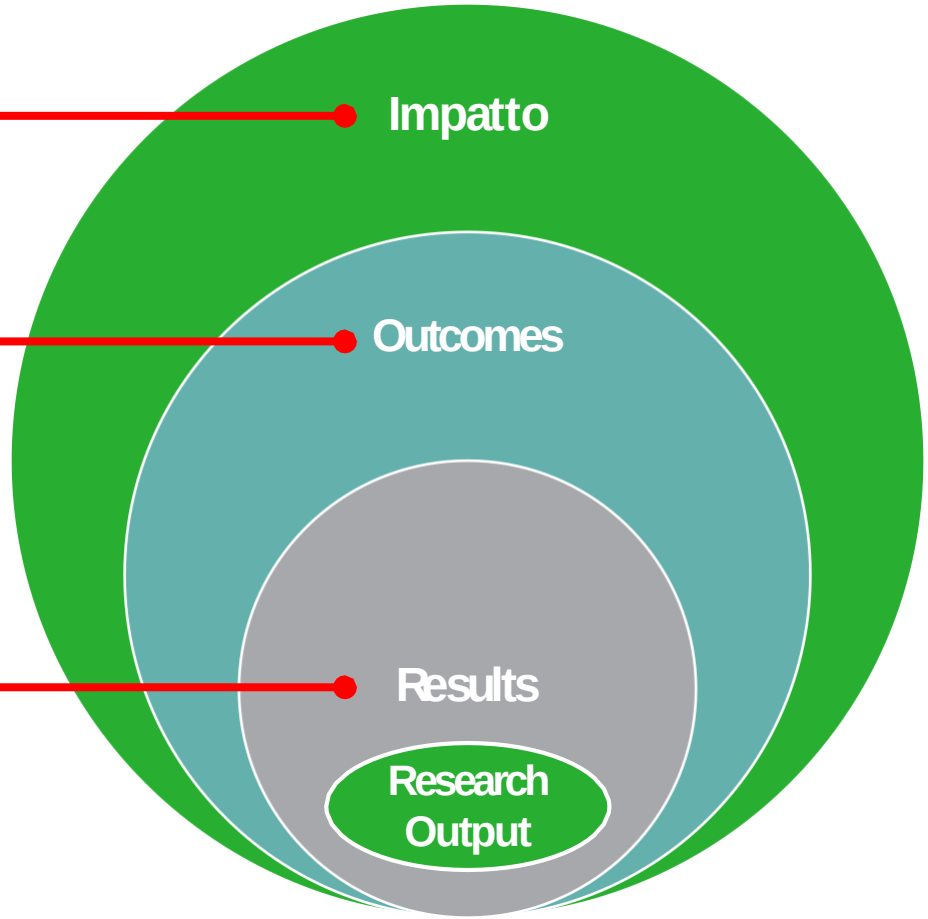
***This first Horizon Europe Strategic Plan** defines the strategic orientations for our research and innovation investments over the period 2021-2024 and acts as a compass to stay on course with the political priorities of the Commission: a climate-neutral and green Europe, fit for the digital age, where the economy works for the people. The aim is to ensure an effective interface between EU policy priorities and programme activities.

Impact Pathway

Destination — **Expected Impact**

Topic — **Expected Outcomes**

Project — **Expected Results**



Key impact pathways in Horizon Europe

Key impact pathways in Horizon Europe

The KIPs will aim to:

- Tell the story of the progress of the Programme as a whole, according to its objectives
- Monitor progress at any moment in time (short-term, mid-term, long-term)

Key impact pathways in Horizon Europe

In this process, we need to :

- Know who the individual researchers are (e.g. through unique identifiers)
- Track the FP outputs better, through a structured reference to the funding source in publications, patents and other IPR applications
- Make more use of available data and links to relevant existing databases so as to minimise the administrative burden of beneficiaries

IMPACT DESIGN IN HORIZON EUROPE

THREE TYPES OF IMPACT BASED ON OBJECTIVES

Scientific impact

Promote scientific excellence, support the creation and diffusion of high-quality new fundamental and applied knowledge, skills, training and mobility of researchers, attract talent at all levels, and contribute to full engagement of Union's talent pool in actions supported under the Programme.

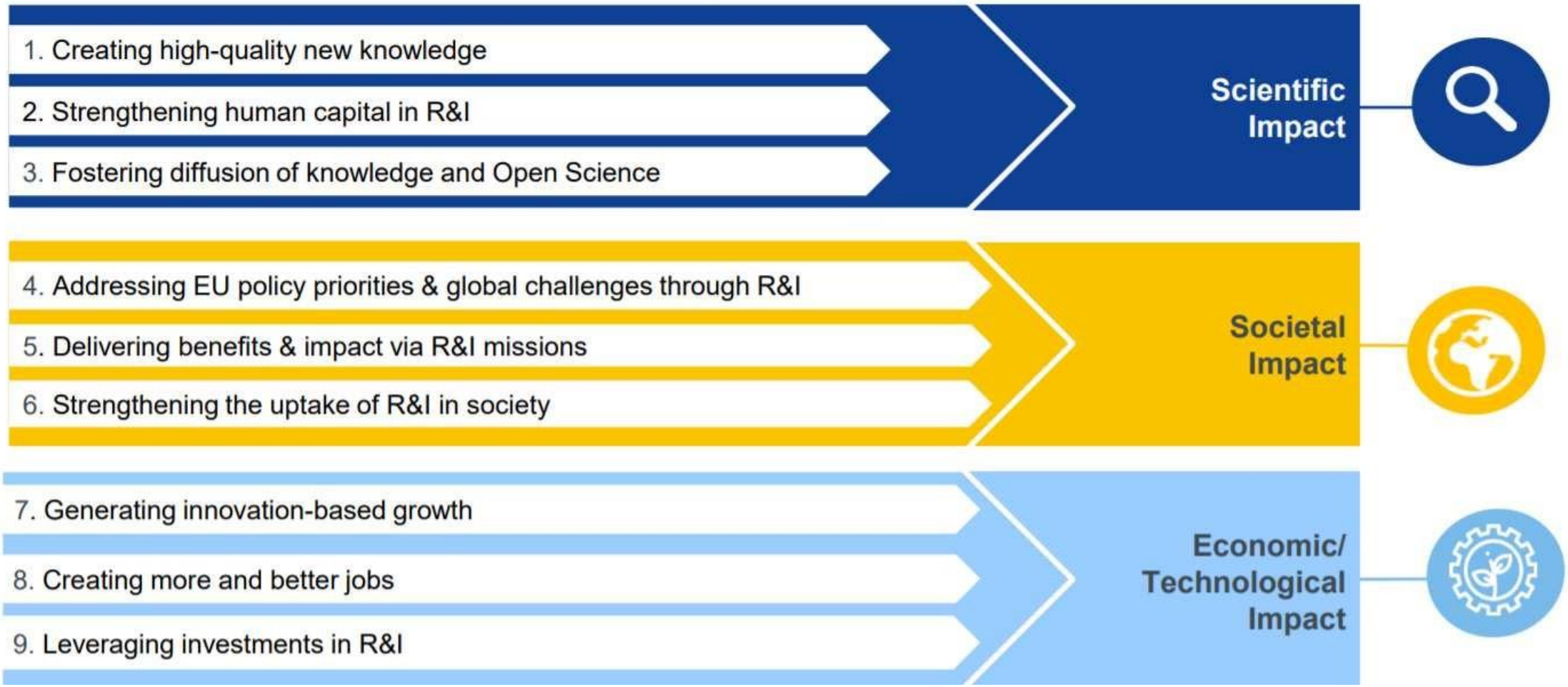
Societal impact

Generate knowledge, strengthen the impact of R&I in developing, supporting and implementing Union policies, and support the uptake of innovative solutions in industry, notably in SMEs, and society to address global challenges, inter alia the SDGs

Economic impact

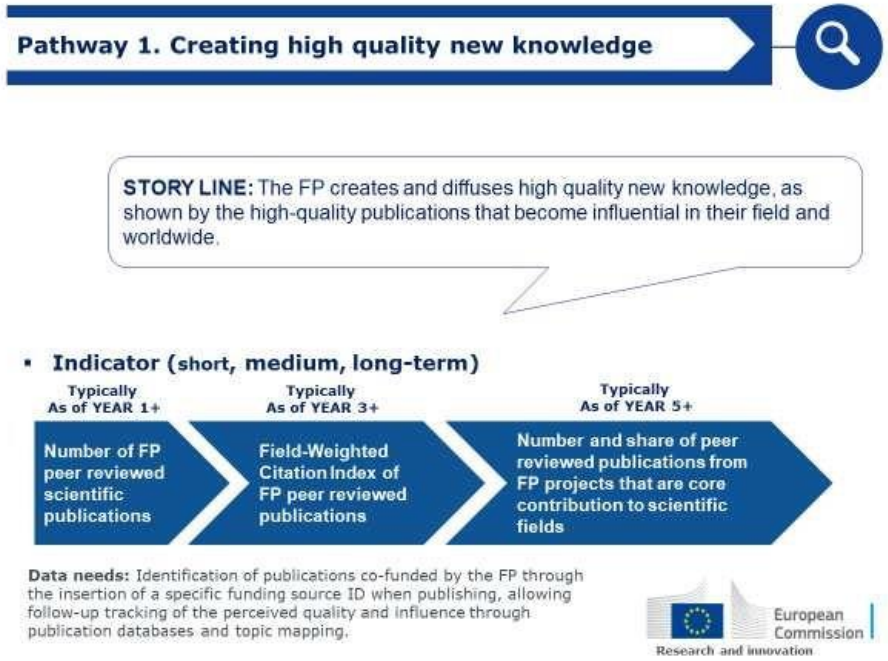
Foster all forms of innovation, facilitate technological development, demonstration and knowledge transfer, and strengthen deployment of innovative solutions

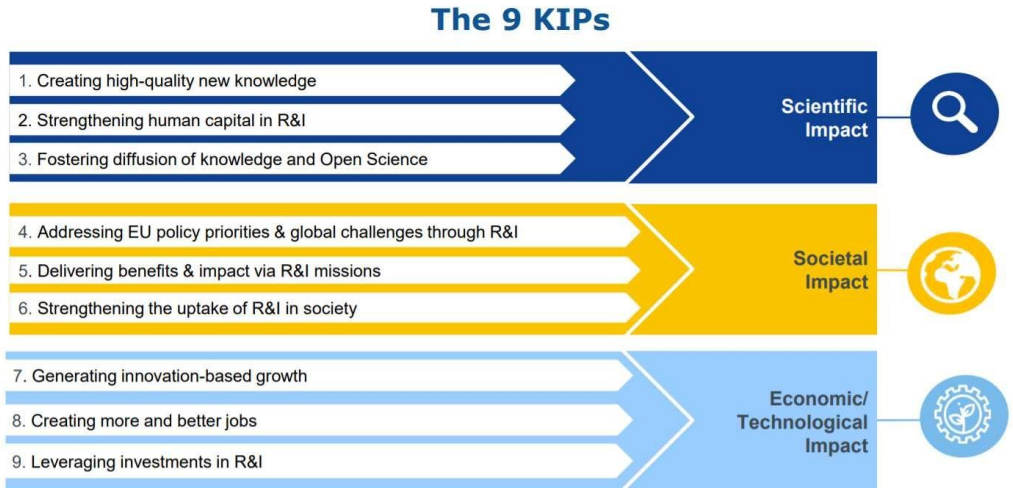
The 9 KIPs



Article 50 & Annex V 'Time-bound indicators to report on an annual basis on progress of the Programme towards the achievement of the objectives referred to in Article 3 and set in Annex V along impact pathways'

Key impact pathways in Horizon Europe





Pathway to impact

Annex V – table 1

Towards scientific impact	Short-term	Medium-term	Longer-term
Creating high-quality new knowledge	Publications - Number of FP peer reviewed scientific publications	Citations - Field-Weighted Citation Index of FP peer reviewed publications	World-class science - Number and share of peer reviewed publications from FP projects that are core contribution to scientific fields
Strengthening human capital in R&I	Skills - Number of researchers involved in upskilling (training, mentoring/coaching, mobility and access to R&I infrastructures) activities in FP projects	Careers - Number and share of upskilled FP researchers with increased individual impact in their R&I field	Working conditions - Number and share of upskilled FP researchers with improved working conditions, including researchers' salaries
Fostering diffusion of knowledge and Open Science	Shared knowledge - Share of FP research outputs (open data/publication/ software etc.) shared through open knowledge infrastructures	Knowledge diffusion - Share of open access FP research outputs actively used/cited	New collaborations - Share of FP beneficiaries having developed new transdisciplinary/ transsectoral collaborations with users of their open FP R&I outputs

Pathway to impact

Annex V – table 2

Towards societal impact	Short-term	Medium-term	Longer-term
Addressing EU policy priorities and global challenges through R&I	Outputs - Number and share of outputs aimed at addressing identified EU policy priorities and global challenges (including SDGs) (multidimensional: for each identified priority) Including: Number and share of climate-relevant outputs aimed at delivering on the EU's commitment under the Paris Agreement	Solutions - Number and share of innovations and research results addressing identified EU policy priorities and global challenges (including SDGs) (multidimensional: for each identified priority) Including: Number and share of climate-relevant innovations and research results delivering on EU's commitment under the Paris Agreement	Benefits - Aggregated estimated effects from use/exploitation of FP-funded results, on tackling identified EU policy priorities and global challenges (including SDGs), including contribution to the policy and law-making cycle (such as norms and standards) (multidimensional: for each identified priority) Including: Aggregated estimated effects from use /exploitation of FP-funded climate-relevant results on delivering on the EU's commitment under the Paris Agreement including contribution to the policy and law-making cycle (such as norms and standards)
Delivering benefits and impact through R&I missions	R&I mission outputs - Outputs in specific R&I Missions (multidimensional: for each identified mission)	R&I mission results - Results in specific R&I Missions (multidimensional: for each identified mission)	R&I mission targets met - Targets achieved in specific R&I missions (multidimensional: for each identified mission)
Strengthening the uptake of research and innovation in society	Co-creation - Number and share of FP projects where EU citizens and end-users contribute to the co-creation of R&I content	Engagement - Number and share of FP beneficiary entities with citizen and end-users engagement mechanisms after FP project	Societal R&I uptake - Uptake and outreach of FP co-created scientific results and innovative solutions

Pathway to impact

Annex V – table 3

Towards **technological /** economic impact	Short-term	Medium-term	Longer-term
Generating innovation-based growth	Innovative outputs - Number of innovative products, processes or methods from FP (by type of innovation) & Intellectual Property Rights (IPR) applications	Innovations - Number of innovations from FP projects (by type of innovation) including from awarded IPRs	Economic growth - Creation, growth & market shares of companies having developed FP innovations
Creating more and better jobs	Supported employment - Number of FTE jobs created, and jobs maintained in beneficiary entities for the FP project (by type of job)	Sustained employment - Increase of FTE jobs in beneficiary entities following FP project (by type of job)	Total employment Number of direct & indirect jobs created or maintained due to diffusion of FP results (by type of job)
Leveraging investments in R&I	Co-investment - Amount of public & private investment mobilised with the initial FP investment	Scaling-up - Amount of public & private investment mobilised to exploit or scale-up FP results (including foreign direct investments)	Contribution to '3% target' - EU progress towards 3% GDP target due to FP

Definizione Research output nel template

- Results generated by the action to which access can be given in the form of scientific publications, data or other engineered outcomes and processes such as software, algorithms, protocols and electronic notebooks.

Some definitions…

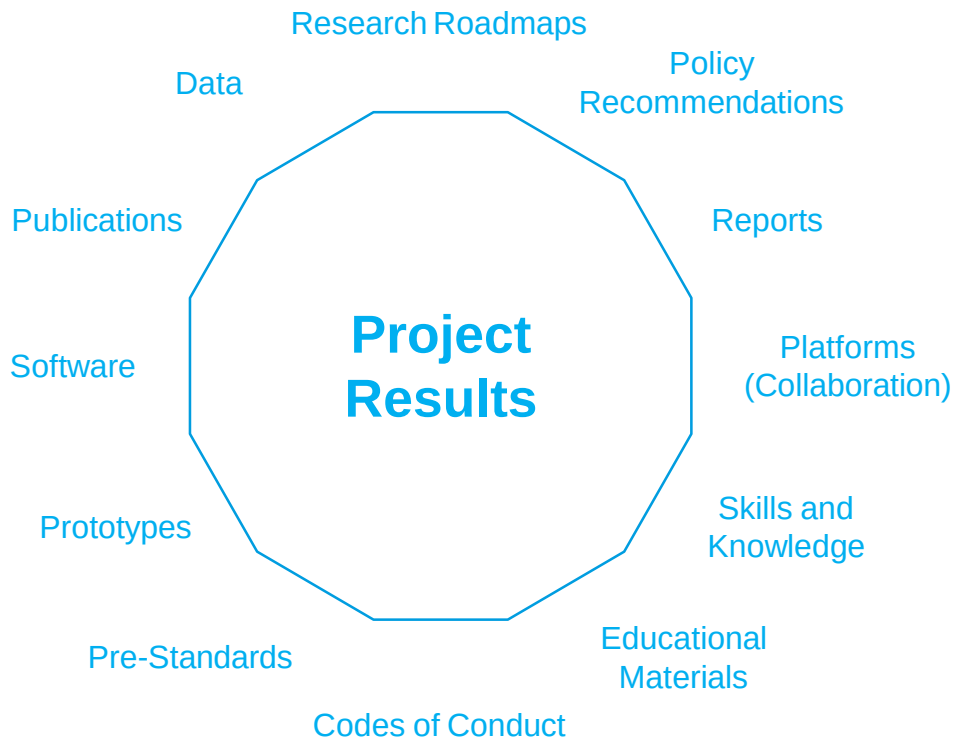
Results:

Results' means any tangible or intangible effect of the action, such as data, know-how or information, whatever its form or nature, whether or not it can be protected, as well as any rights attached to it, including intellectual property rights…

Key results are the **outputs generated during the project which can be used and create impact**, either by the project partners or by other stakeholders

Project results can be reusable and exploitable (e.g. inventions, prototypes, services) as such, or elements (knowledge, technology, processes, networks) that have potential to contribute for further work on research or innovation

Research Communities **MS, EU Policymakers**



Industry, Innovators **Civic Society, Citizens**

Definizione di outcomes nel template

The expected effects, over the medium term, of projects supported under a given topic. The results of a project should contribute to these outcomes, fostered in particular by the dissemination and exploitation measures. This may include the uptake, diffusion, deployment, and/or use of the project's results by direct target groups. Outcomes generally occur during or shortly after the end of the project.

Example: 9 European airports adopt the advanced forecasting system demonstrated during the project.

Definizione di impatto nel template

Wider long term effects on society (including the environment), the economy and science, enabled by the outcomes of R&I investments (long term). It refers to the specific contribution of the project to the work programme expected impacts described in the destination. Impacts generally occur some time after the end of the project.

Example: The deployment of the advanced forecasting system enables each airport to increase maximum passenger capacity by 15% and passenger average throughput by 10%, leading to a 28% reduction in infrastructure expansion costs.

Definizione impact pathway in proposal template

- Logical steps towards the achievement of the expected impacts of the project over time, in particular beyond the duration of a project. A pathway begins with the projects' results, to their dissemination, exploitation and communication, contributing to the expected outcomes in the work programme topic, and ultimately to the wider scientific, economic and societal impacts of the work programme destination.

Impact – aspects to be taken into account.

- Credibility of the pathways to achieve the expected outcomes and impacts specified in the work programme, and the likely scale and significance of the contributions due to the project.
- Suitability and quality of the measures to maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities

The results of your project should make a contribution to the expected outcomes set out for the work programme topic over the medium term, and to the wider expected impacts set out in the 'destination' over the longer term.

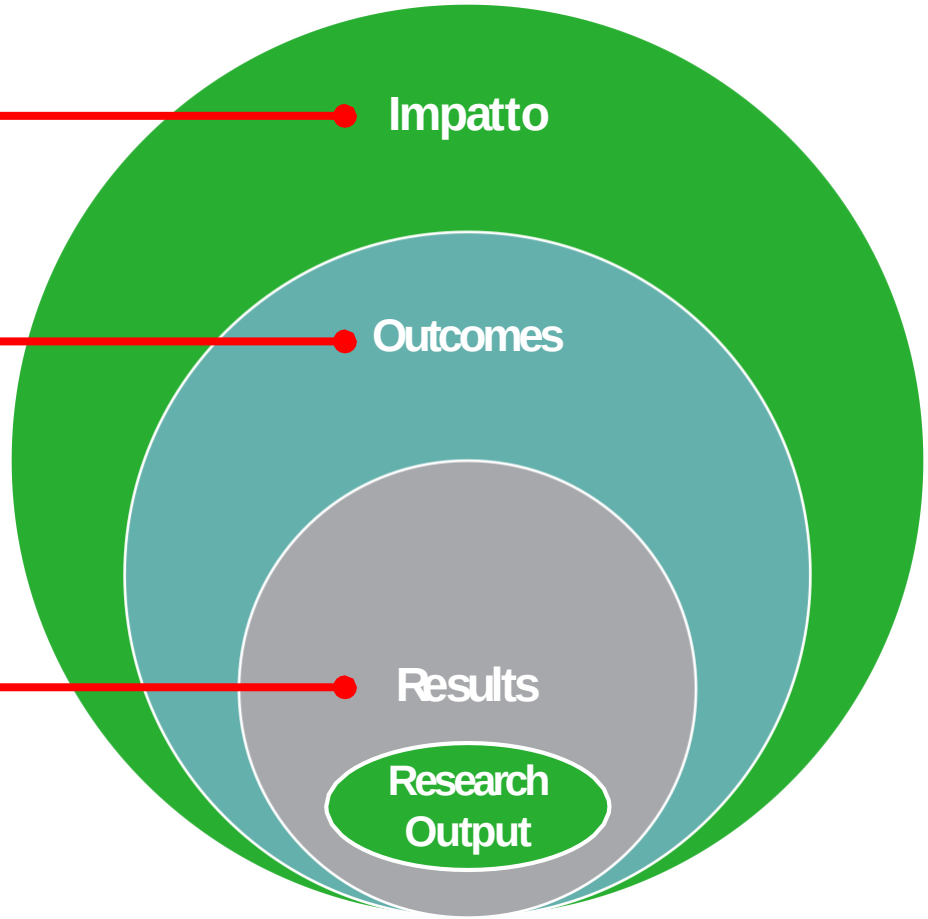
In this section you should show how your project could contribute to the outcomes and impacts described in the work programme, the likely scale and significance of this contribution, and the measures to maximise these impacts.

Impact Pathway

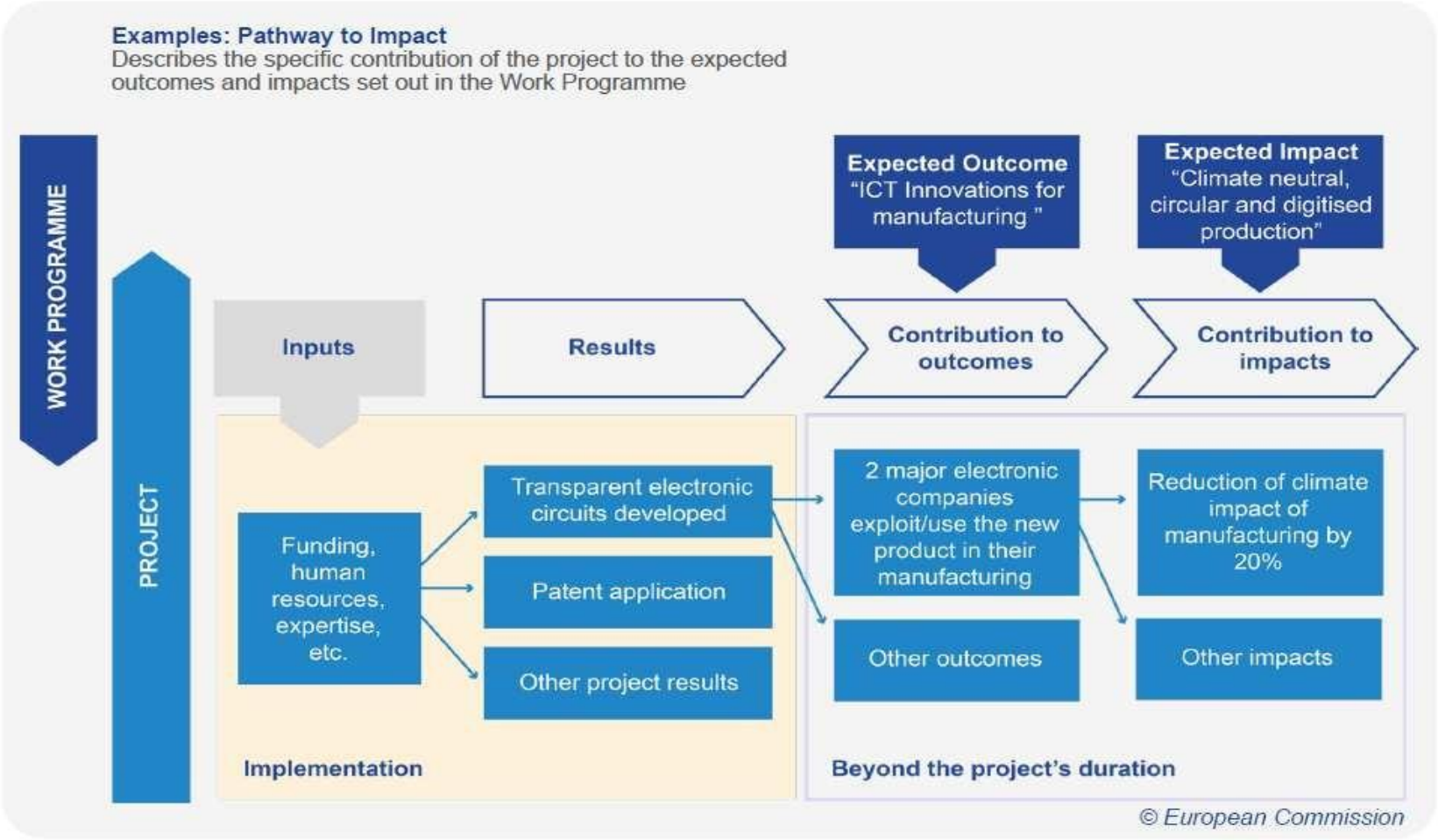
Destination — **Expected Impact**

Topic — **Expected Outcomes**

Project — **Expected Results**



Impact Pathway



Keep in mind!

Link your proposal to the policy context of the call for proposals.

Think of how your project's results, outputs, and impacts will contribute to the topic and destination of the work programme. Proposals will be assessed based on the credibility of their pathway towards impact. In working on this pathway, consider the following questions:

- What are the expected outputs and impacts of your project?
- How do they contribute in a concrete way to the work programme?
- What target groups (user communities? Parts of the society?) would benefit from those impacts?
- What are the risks and barriers to impact, and how can they be addressed to make the pathway towards impact more credible?

Successful valorisation of knowledge and research results in Horizon Europe : boosting the impact of your project through effective communication, dissemination and exploitation
DOI: 10.2826/437645

2.2 Measures to maximise impact - Dissemination, exploitation and communication [e.g. 5 pages]

- Describe the planned measures to maximise the impact of your project by providing a first version of your '**plan for the dissemination and exploitation including communication activities**'. Describe the dissemination, exploitation and communication measures that are planned, and the target group(s) addressed (e.g. scientific community, end users, financial actors, public at large).

Please remember that this plan is an admissibility condition, unless the work programme topic explicitly states otherwise. In case your proposal is selected for funding, a more detailed 'plan for dissemination and exploitation including communication activities' will need to be provided as a mandatory project deliverable within 6 months after signature date. This plan shall be periodically updated in alignment with the project's progress.

Communication measures should promote the project throughout the full lifespan of the project. The aim is to inform and reach out to society and show the activities performed, and the use and the benefits the project will have for citizens. Activities must be strategically planned, with clear objectives, start at the outset and continue through the lifetime of the project. The description of the communication activities needs to state the main messages as well as the tools and channels that will be used to reach out to each of the chosen target groups.

All measures should be proportionate to the scale of the project, and should contain concrete actions to be implemented both during and after the end of the project, e.g. standardisation activities. Your plan should give due consideration to the possible follow-up of your project, once it is finished. In the justification, explain why each measure chosen is best suited to reach the target group addressed. Where relevant, and for innovation actions, in particular, describe the measures for a plausible path to commercialise the innovations.

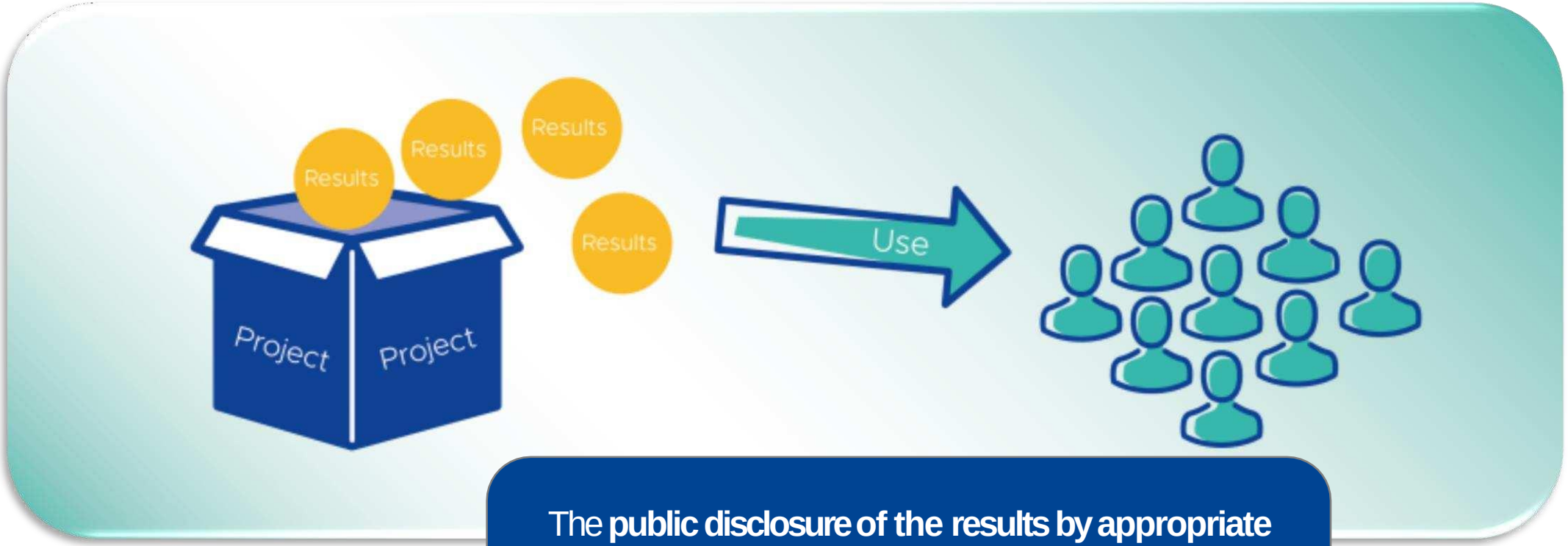
If exploitation is expected primarily in non-associated third countries, justify by explaining how that exploitation is still in the Union's interest.

Describe possible feedback to policy measures generated by the project that will contribute to designing, monitoring, reviewing and rectifying (if necessary) existing policy and programmatic measures or shaping and supporting the implementation of new policy initiatives and decisions.

Communication

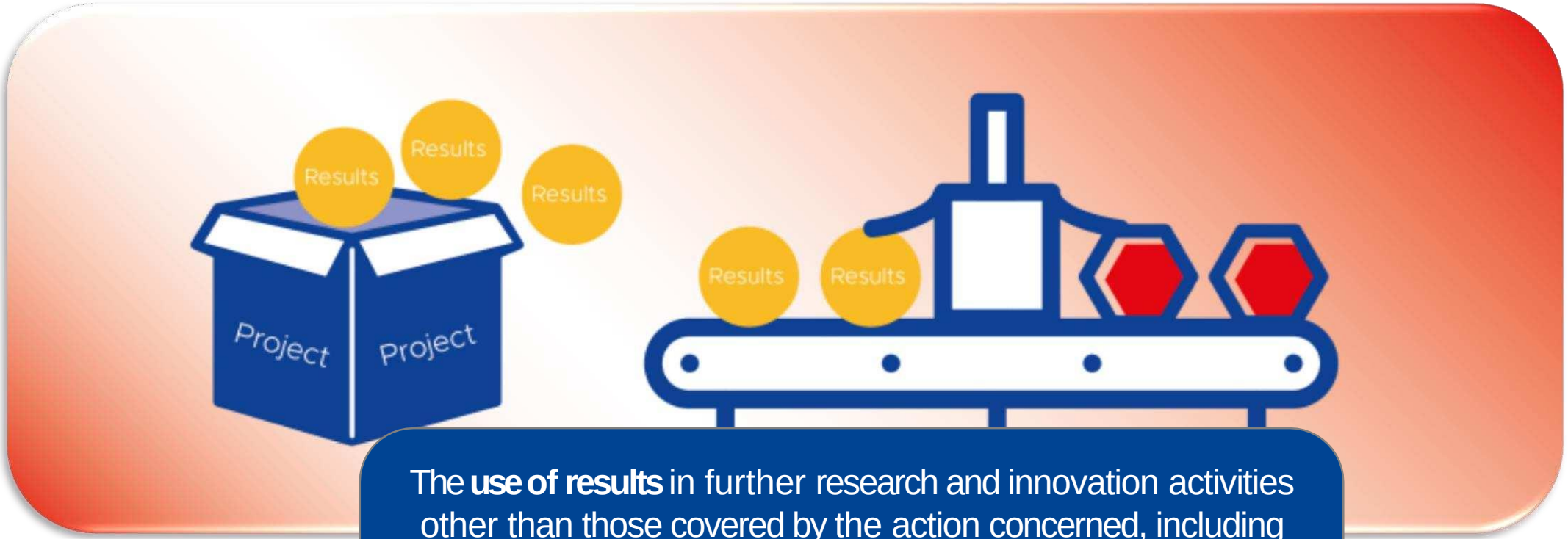
Communication measures should promote the project throughout the full lifespan of the project. The aim is **to inform and reach out to society and show the activities performed, and the use and the benefits the project** will have for citizens.

Dissemination



The **public disclosure of the results by appropriate means**, other than resulting from protecting or exploiting the results, including by scientific publications in any medium.

Exploitation



The **use of results** in further research and innovation activities other than those covered by the action concerned, including among other things, commercial exploitation such as developing, creating, manufacturing and marketing a product or process, creating and providing a service, or in standardisation activities.

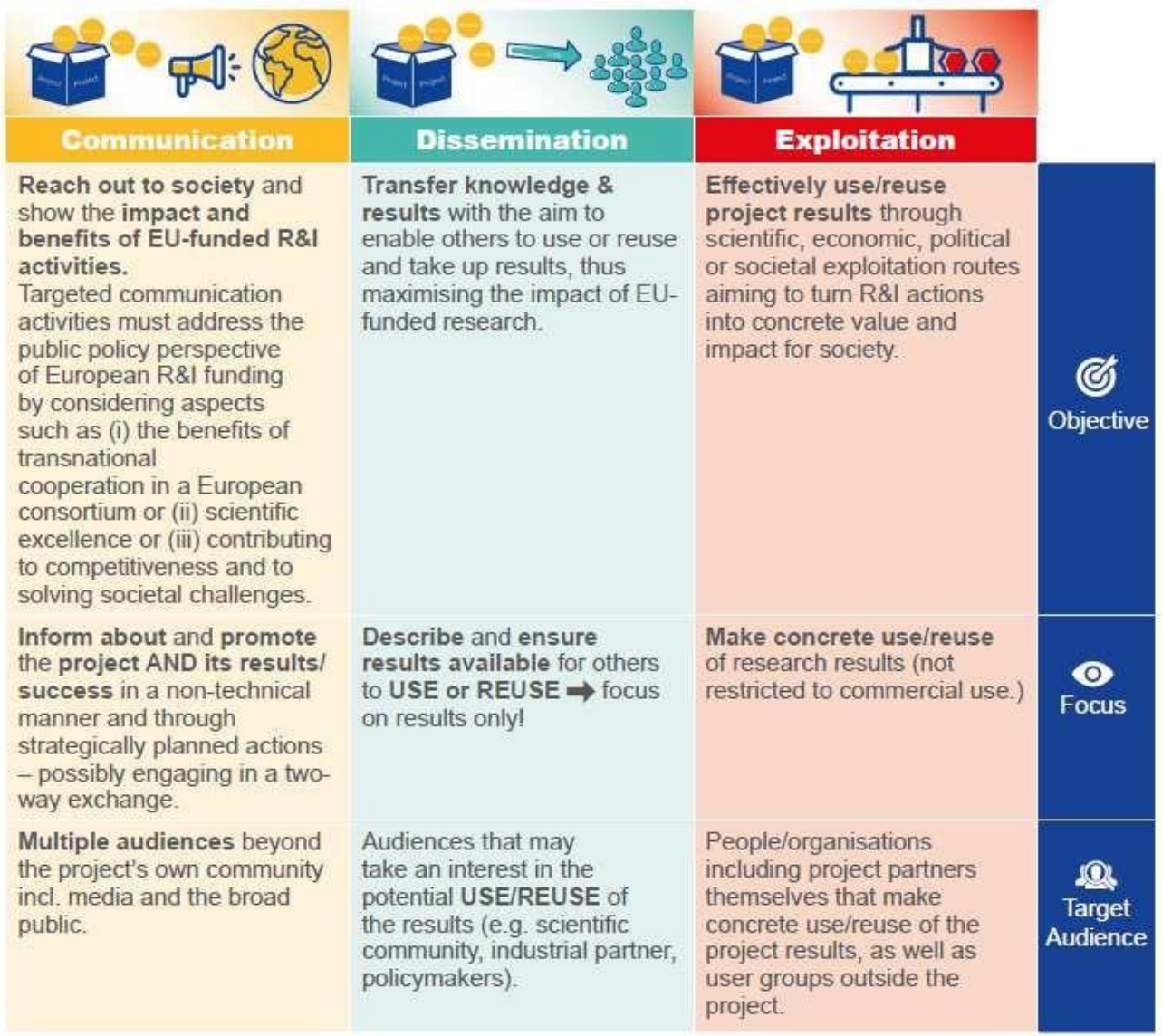
Definizioni

Communication	Dissemination	Exploitation
Taking strategic and targeted measures for promoting the action itself and its results to a multitude of audiences, including the media and the public, and possibly engaging in a two-way exchange*	Making the results of aproject public, not only by scientific publications in any medium*	The utilisation of results in developing, creating and marketing a product or process, or in creating and providing a service, or in standardisation activities.*

* http://ec.europa.eu/research/participants/portal/desktop/en/support/reference_terms.html

In a nutshell

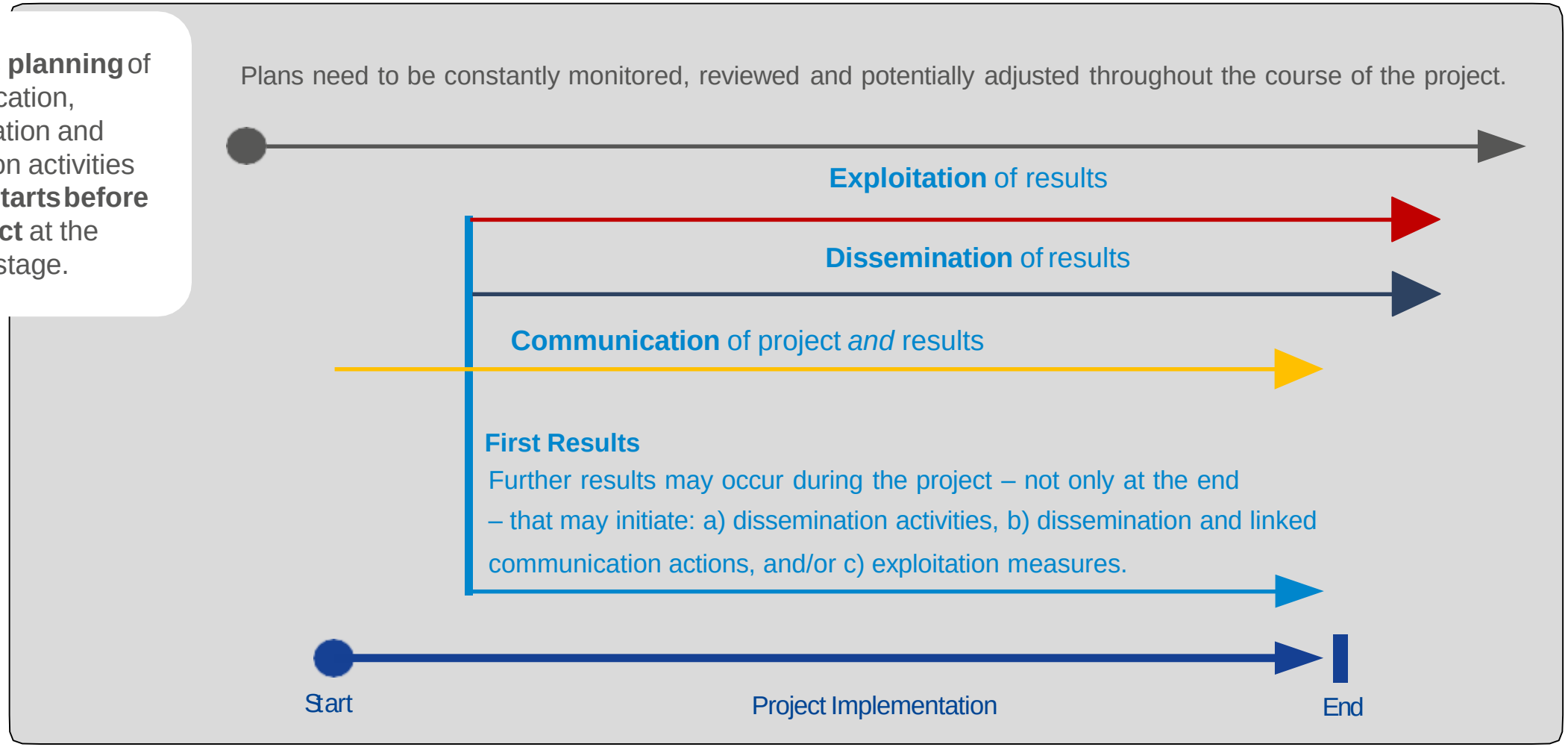
***certain tools and activities can oscillate between communication and dissemination, depending on the target group and content



Communication	Dissemination	Exploitation	
Reach out to society and show the **impact and benefits of EU-funded R&I activities.** Targeted communication activities must address the public policy perspective of European R&I funding by considering aspects such as (i) the benefits of transnational cooperation in a European consortium or (ii) scientific excellence or (iii) contributing to competitiveness and to solving societal challenges.	**Transfer knowledge & results** with the aim to enable others to use or reuse and take up results, thus maximising the impact of EU-funded research.	**Effectively use/reuse project results** through scientific, economic, political or societal exploitation routes aiming to turn R&I actions into concrete value and impact for society.	Objective
Inform about and **promote** the **project AND its results/ success** in a non-technical manner and through strategically planned actions – possibly engaging in a two-way exchange.	**Describe** and **ensure results available** for others to **USE or REUSE** ➡ focus on results only!	**Make concrete use/reuse** of research results (not restricted to commercial use.)	Focus
Multiple audiences beyond the project's own community incl. media and the broad public.	Audiences that may take an interest in the potential **USE/REUSE** of the results (e.g. scientific community, industrial partner, policymakers).	People/organisations including project partners themselves that make concrete use/reuse of the project results, as well as user groups outside the project.	Target Audience

Timing

Strategic planning of communication, dissemination and exploitation activities **already starts before the project** at the proposal stage.



2.2 Measures to maximise impact - Dissemination, exploitation and communication [e.g. 5 pages]

- Outline your strategy for the **management of intellectual property**, foreseen protection measures, such as patents, design rights, copyright, trade secrets, etc., and how these would be used to support exploitation.

*If your project is selected, you will need an appropriate consortium agreement to manage (amongst other things) the **ownership and access to key knowledge (IPR, research data etc.)**. Where relevant, these will allow you, collectively and individually, to pursue market opportunities arising from the project.*

If your project is selected, you must indicate the owner(s) of the results (results ownership list) in the final periodic report.

Before Project Start

Exploitation and dissemination planning

- Draw a convincing outline of **exploitation strategies** at individual/consortium level
- IP exploitation issues are subject to evaluation regarding **impact and implementation**. Identifying **relevant bodies/competences** within the consortium should demonstrate the potential of addressing IP management properly
- Include relevant tasks/**deliverables**: PDEC, Innovation-related workshops, Market Analysis, Business Plans, Risk-Analysis, Freedom-to-Operate analysis, Specific contracts/agreements

Grant Vs Consortium Agreement

DOCUMENT	SIGNATURE *WHEN*	MEMBERS *WHO*	CONTENT *WHAT*
Grant Agreement (GA)	*At the of GAP (GA preparation) phase*	Beneficiaries and European Commission	It establishes the rights and obligations of the beneficiaries towards the EU *IP rules are not negotiable*
Consortium Agreement (CA)	*During GAP*	Project Coordinator and beneficiaries	It establishes the legal basis for the division of rights, obligations and responsibilities among the beneficiaries *IP rules must be agreed among the partners*

IPR Helpdesk Fact Sheet
https://www.iprhelpdesk.eu/sites/default/files/newsdocuments/FS_How_to_manage_IP_in_H2020_grant_preparation_0.pdf

Summary 2.3

- Provide a summary of this section by presenting in the **canvas** below the **key elements of your project impact pathway** and of the measures to maximise its impact.
- **KEY ELEMENT OF THE IMPACT SECTION!**

SPECIFIC NEEDS	EXPECTED RESULTS	D & E & C MEASURES
What are the specific needs that triggered this project?	**What do you expect to generate by the end of the project?**	**What dissemination, exploitation and communication measures will you apply to the results?**
Example 1 Most airports use process flow-oriented models based on static mathematical values limiting the optimal management of passenger flow and hampering the accurate use of the available resources to the actual demand of passengers. Example 2 Electronic components need to get smaller and lighter to match the expectations of the end-users. At the same time there is a problem of sourcing of raw materials that has an environmental impact.	Example 1 **Successful large-scale demonstrator:** **Successful large-scale demonstrator:** Trial with 3 airports of an advanced forecasting system for proactive airport passenger flow management. **Algorithmic model:** Novel algorithmic model for proactive airport passenger flow management. Example 2 Publication of a **scientific discovery on transparent electronics.** **New product:** More sustainable electronic circuits. **Three PhD students trained.**	Example 1 **Exploitation:** Patenting the algorithmic model. **Dissemination towards the scientific community and airports**: Scientific publication with the results of the large-scale demonstration. **Communication towards citizens:** An event in a shopping mall to show how the outcomes of the action are relevant to our everyday lives. Example 2 **Exploitation of the new product:** Patenting the new product; Licencing to major electronic companies. **Dissemination towards the scientific community and industry:** Participating at conferences; Developing a platform of material compositions for industry; Participation at EC project portfolios to disseminate the results as part of a group and maximise the visibility vis-à-vis companies

TARGET GROUPS	OUTCOMES	IMPACTS
Who will use or further up-take the results of the project? Who will benefit from the results of the project?	***What change do you expect to see after successful dissemination and exploitation of project results to the target group(s)?***	***What are the expected wider scientific, economic and societal effects of the project contributing to the expected impacts outlined in the respective destination in the work programme?***
Example 1 **9 European airports:** Schiphol, Brussels airport, etc. **The European Union aviation safety agency.** **Air passengers (indirect).**	Example 1 **Up-take by airports:** 9 European airports adopt the advanced forecasting system demonstrated during the project.	Example 1 **Scientific:** New breakthrough scientific discovery on passenger forecast modelling. **Economic:** Increased airport efficiency Size: 15% increase of maximum passenger capacity in European airports, leading to a 28% reduction in infrastructure expansion costs.
Example 2 **End-users**: consumers of electronic devices. **Major electronic companies**: Samsung, Apple, etc. **Scientific community** (field of transparent electronics).	Example 2 **High use of the scientific discovery published** (measured with the relative rate of citation index of project publications). A **major electronic company** (Samsung or Apple) **exploits/uses the new product** in their manufacturing.	Example 2 **Scientific:** New breakthrough scientific discovery on transparent electronics. **Economic/Technological:** A new market for touch enabled electronic devices. **Societal:** Lower climate impact of electronics manufacturing (including through material sourcing and waste management).

SPECIFIC NEEDS	EXPECTED RESULTS	D & E & C MEASURES
- Skin cancer patients treated with current therapy lack a predictive biomarker. - Biomarker XY, the currently approved one, has many limits. It does not precisely address the current therapy in a tailor way leading to a reduced survival, undue toxicity and costly therapy	**Platform:** A big EU and beyond data storage platform for providing to physicians AI models for co-decision making, patients empowerment and researchers will be developed and validated in a retro and prospective clinical study. **Algorithms**: a set of novel models for data extraction and prediction will be crafted for skin cancer prediction.	**Dissemination:** scientific publication with results on our platform and AI models **Exploitation:** Patent for medical device **Communication:** a dedicated project website will be available in order to share with all the target groups the data
TARGET GROUPS	**OUTCOMES**	**IMPACTS**
Skin cancer patients Healthcare professionals Researchers in skin cancer field Healthcare authorities and policy makers General Public SME	- Use of the co-decision making AI tool provided by the our app to patients and physicians. - Lung cancer community will use the new platform to share and exchange ideas and novel results. - Creation of a strong connection among EU and US for policy on data sharing.	- Improving Overall Survival and Quality of Life in skin cancer patient. - Reduce toxicity burden for skin cancer patients - Reduce costs for healthcare - Improving physician-patient relationship - Boost the EU Extra-EU exchange

Practical example

APRE

Proposal template Part B: technical description

1. Excellence

1.1 Objectives and ambition *[e.g. 4 pages]*

1.2 Methodology *[e.g. 15 pages]*

2. Impact

2.1 Project's pathways towards impact *[e.g. 4 pages]*

2.2 Measures to maximise impact - Dissemination, exploitation and communication *[e.g. 5 pages]*

2.3 Summary (Canvas table)

3. Quality and efficiency of the implementation

3.1 Work plan and resources *[e.g. 14 pages – including tables]*

3.2 Capacity of participants and consortium as a whole *[e.g. 3 pages]*

Part B - Section 3

3. Quality and efficiency of the implementation

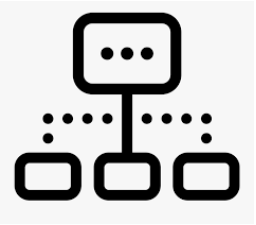
3.1 Work plan and resources *[e.g. 14 pages – including tables]*

3.2 Capacity of participants and consortium as a whole *[e.g. 3 pages]*

3.1 Work plan and resources [e.g. 14 pages – including tables]

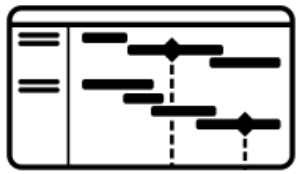
Please provide the following:

- brief presentation of the overall structure of the work plan;
- timing of the different work packages and their components (Gantt chart or similar);
- graphical presentation of the components showing how they inter-relate (Pert chart or similar).



Work Breakdown Structure (WBS)

- A deliverable-oriented breakdown of a project into smaller components
- WBS is a hierarchical and incremental decomposition of the project into phases, deliverables, and work packages
- It is a tree structure, which shows a subdivision of effort required to achieve an objective



Gantt and Pert Charts

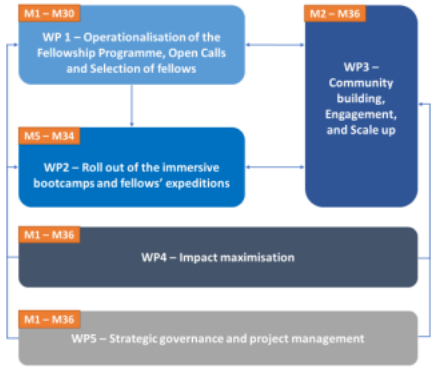
- A **Gantt** chart is a type of bar chart that illustrates a project schedule. This chart lists the tasks to be performed on the vertical axis, and time intervals on the horizontal axis. The width of the horizontal bars in the graph shows the duration of each activity.
- A **Pert** chart works by visually representing a project's tasks and the dependencies connected to each one.

Overall structure of the work plan

Example

3 Implementation
3.1 Work Plan and resources
3.1.1 Overall work plan structure

Figure 3: Pert chart



WP1 is about ensuring that modalities of the Fellowship programme are in place to be able to kick start the open calls for fellows' applications and select the fellows that will go on expediti… in the U.S. and Canada. WP1 will also be about setting up the … support services that will be provided to the fellows d… expeditions in order to boost their collaboration with … organisations. **WP2** includes pre-departure training and prep… fellows, the actual rollout of fellows' expeditions to th… Canada, the follow up of fellows' and hosts collaboration d… expeditions, the provisions of on-demand support services to … boost their collaborative projects and the organisation … competitions and award ceremonies. **WP3** consists in expa… reinforcing partnerships with former hosts organisations in t… establishing additional partnerships with new host organisations both in the US and CA through the … outreach campaign in both countries. In addition, NGI Enrichers aims to ensure that a high number … applications are received through the open calls and the highest number of fellows are funded by con… outreach campaign among the EU. **WP4** consists of all outreach, dissemination, communication activitie… promoting the project and building its visibility among the project relevant project stakeholders. Promotio… opportunities to the EU, US and CA will be undertaken in this WP, public events and other activities … enhance the community. An initial Exploitation and Sustainability Plan will be created at an early pro… implemented, and updated enduring the course of the project, in line with the strategy and governanc… defines the structure, architecture of the NGI Enrichers' entity and defines its strategy, ensuring its sustaina… time. By creating the optimal strategic environment and its governing structure, setting up an Advisory … enabling a sound collaboration with stakeholders from all regions as well as relevant structures during ar… project. Project management activities will ensure the efficient implementation of the support act and … outcomes as well as synergy across the consortium and expert groups and with the US and Canadia … associated with this call. Project management will include managing smooth information and communica… ongoing coordination and quality management, and preparing the project management reports, cost state … reviews, including internal reporting. The following Gantt chart presents the planned timeline for all WP …

Overall structure of the work plan

Based on the overall approach and research strategy formulated in section 1.3.2 the CSA is structured into six work packages (Figure 3):

WP 1 –Methodology and mapping: The methodological tools and approaches will be designed in order to carry out a comprehensive mapping of initiatives, structures, instruments and key gaps for and across the relevant sectors and macro-regions, covering geographical levels from regions to EU. Methods and mapping will be fine-tuned according to stakeholders' information needs.

WP 2 - Analysis: The information base elaborated in WP1 will be analysed in order to identify key starting points and best-practices how to improve the functioning of the innovation-ecosystems. In a co-creation process with multi-stakeholder groups these analytic results will be transformed into practical, implementation-oriented guidelines.

WP 3 –Implementation: Good practices and guidelines resulting from WP 2 will be implemented, tested and validated in practice. This includes various networking and matchmaking events in order to promote the dialogue and collaboration among different stakeholders and across the different sectors of the bioeconomy and food-systems and validation the findings from good practices.

WP 4 – Recommendations: The consortium will deduce recommendations for policy actions, guidelines good-practices for financing, collaboration, technology transfer and other issues concerning the deployment of innovations in the bioeconomy, and co-creatively refine them with all relevant stakeholder groups. Follow-up events will be conducted, to ensure that the recommendations are understood, actively reflected and implemented into stakeholders' activities and action plans.

WP 5 – Communication and dissemination: The consortium will provide stakeholders at European, macro-regional, national and regional level, with the information about the ShapingBio project's activities, events, achievements and recommendations. It will also collaborate with other projects. ShapingBio will also define a strategy on how the project results can be exploited by stakeholders in the medium to long term.

WP 6 – Project management: WP 6 will coordinate, support and facilitate the consortium interactions for the smooth implementation of the project activities including liaison with the Commission and stakeholder advisory group.

Gantt chart

Example

		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
1	*Specification of methodological approach and mapping*																																				
1,1	Specification of the methodological framework and the integration of stakeholders into the project						D1.1																											D1.4			
1,2	Assessment of information needs of stakeholders																																				
1,3	Overall mapping of global and EUs policies in bio-based sectors & food-systems								M1						D1.2																						
1,4	Mapping of initiatives, structures, instruments and key challenges for EUs macro-regions														D1.3																						
1,5	Validation of mapping results														M2																						
2	*Analysis of mapped information and involvement of stakeholders*											M3									M3																
2,1	Analysis of policy and governance																					D2.1															
2,2	Analysis of applied R&D and technology transfer																																				
2,3	Analysis of collaboration																																				
2,4	Analysis of financing																																				
3	*Testing and Implementation*																																				
3,1	Developing / Fine-tuning of Implementation Approach																					D3.1															
3,2	Networking, Matchmaking and Validation Events																																				
3,3	Evaluation																																				
4	*Recommendations and Impacts*																																				
4,1	Development of recommendations																																				
4,2	Follow-up implementation of recommendations to achieve impact																																				
5	*Communication, Dissemination and Exploitation*					M9																															
5,1	Dissemination and communication plan						D5.1						D5.2																								
5,2	Exploitation strategy and plan						D5.4																														
5,3	Communication and dissemination activities																																				
5,4	Final Conference																																				
6	*Management*																																				
6,1	Project Management						D6.1																														
6,2	Data Management and Ethics						D6.2																														
6,3	Advisory Board Management																																				

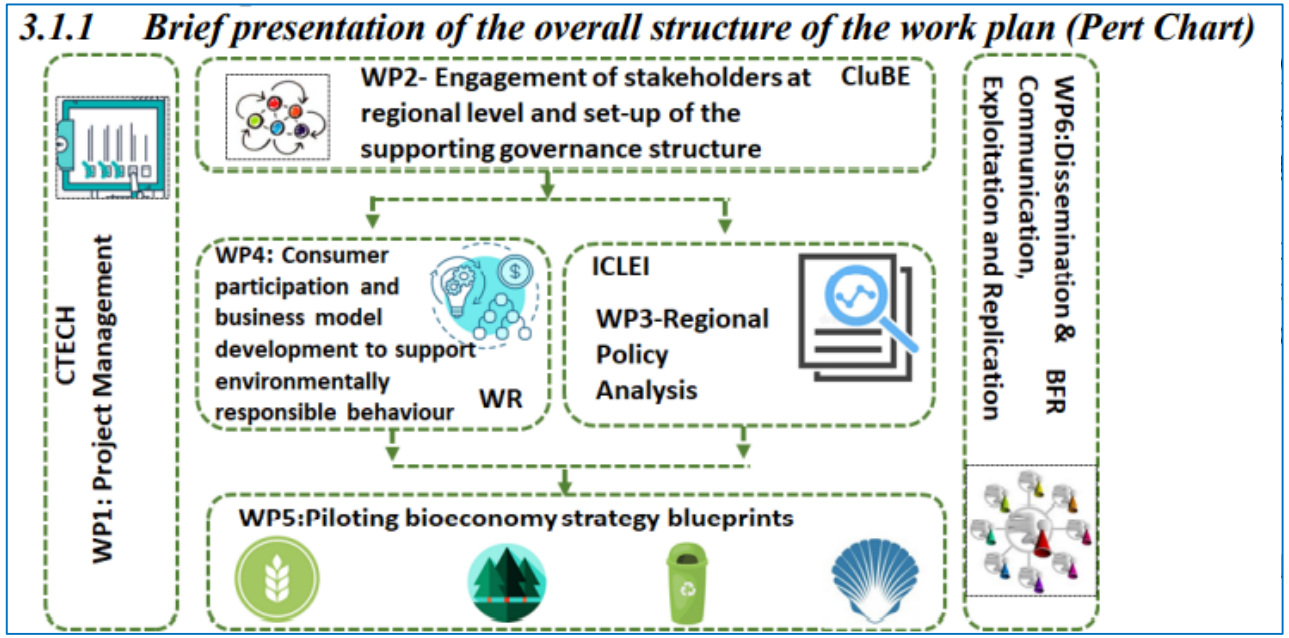
3.1.2 Gantt Chart

★ Milestone; D: Deliverable.

WP No	Title WP	Year 1												Year 2												Year 3											
		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	Project Management	★1																																			
T1.1	Set-up of management structure and procedures			D1.13																																	
T1.2	Set-up of communication rules and tools																																				
T1.3	Project administration and resource monitoring																																				
T1.4	Sex/Gender Analysis																																				
T1.5	Data Management Plan						D1.2																														D1..3
T1.6	Coordination/synergies with relevant EU projects and other initiatives																																				
WP2	Engagement of stakeholders at regional level and set-up of the supporting governance structure		★2																																		
T2.1	Set up of the Governance structure			D2.1-2																																	
T2.2	Stakeholders mobilization																			D2.3																	D2.4
T2.3	Online workshops to collect needs from stakeholders involved in the 6 pilot regions																																				
WP3	Regional Policy Analysis					★3																	★4														
T3.1	Understanding regional bioeconomy governance					D3.1																															
T3.2	Extending existing monitoring system with -regional based- bioeconomy policies and key performance indicators to allow replication across Europe															D3.2																					
T3.3	Analysing the governance system and related policy-mix in pilot regions																							D3.3													
WP4	Consumer participation and business model development to support environmentally responsible behaviour																							★5													
T4.1	Determine consumers' needs, barriers and transform these to potentialities to enable the transition towards environmental responsible behaviour																			D4.1																	
T4.2	Enabling biobased business models at the regional level and the development of new ones																							D4.2.2													
T4.3	Business model analysis on the pilot regions																																				
WP5	Piloting bioeconomy strategy blueprints																							★6													
T5.1	Regional bioeconomy strategy blueprints																																				D5.1
T5.2	Showcase the pilot regions through webinars and workshops																																				D5.2-3
WP6	Dissemination & Communication, Exploitation and Replication	★7																						★8												★9	
T6.1	Dissemination & Communication Plan			D6.1																D6.3II																	D6.4
T6.2	Dissemination and Communication Activities			D6.2																																	
T6.3	Dissemination among cluster members																																				
T6.4	Clustering with other projects and initiatives																																				
T6.5	Lobbying at regional and national level for the promotion of Bioeconomy																																				
T6.6	Exploitation, replicability actions and strategy -																																				D6.5

APRE

Pert chart



Example

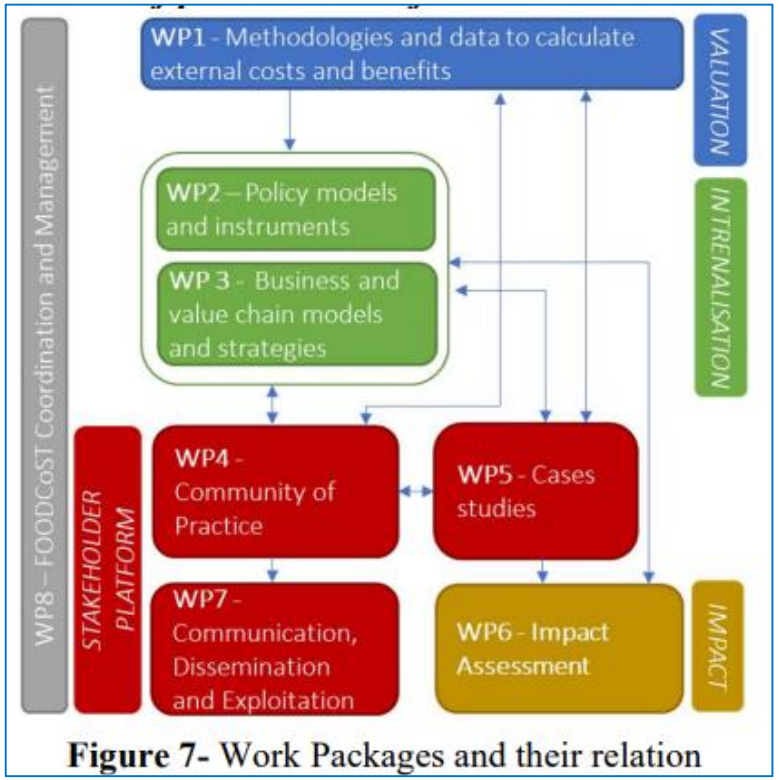


Figure 7- Work Packages and their relation

- 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 deliverables (table 3.1c);
- a list of milestones (table 3.1d);
- a list of critical risks, relating to project implementation, that the stated project's objectives may not be achieved. Detail any risk mitigation measures. You will be able to update the list of critical risks and mitigation measures as the project progresses (table 3.1e);
- a table showing number of person months required (table 3.1f);
- a table showing description and justification of subcontracting costs for each participant (table 3.1g);
- a table showing justifications for 'purchase costs' (table 3.1h) for participants where those costs exceed 15% of the personnel costs (according to the budget table in proposal part A);
- if applicable, a table showing justifications for 'other costs categories' (table 3.1i).

Table 3.1a: 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		

Example

3.1.5. List of Work packages

WP No	Work Package Title	Lead Part. No	Lead Part. Short Name	Person-months	Start Month	End Month
1	Creation of awareness, communication and education toolkits	8	UNIBO	19,15	1	24
2	Awareness and public engagement activities	5	PEDAL	33,9	3	24
3	Support Member States and Regions in awareness, communication and education activities in bioeconomy	6	QPLAN	21,75	3	24
4	Strengthen the European Bioeconomy Network	2	FVA	18,25	1	24
5	Communication, Dissemination, Exploitation, Impact and Sustainability	4	LOBA	19	1	24
6	Project Management	1	APRE	17,25	1	24
			Total Months	**129,3**		

Table 3.1b: Work package description

For each work package:

Work package number	
Work package title	

⚠ *Participants involved in each WP and their efforts are shown in table 3.1f. Lead participant and starting and end date of each WP are shown in table 3.1a.)*

Objectives

Description of work (where appropriate, broken down into tasks), lead partner and role of participants. Deliverables linked to each WP are listed in table 3.1c (no need to repeat the information here).

complete

Example

Work package 2

Work package No.	2							Lead beneficiary			TPB
Work package title	Optimisation, demonstration and application of sustainable, animal-free protein production										
Participant number	1	2	3	4	5	6	7	8	9	10	11
Short name	BBEPP	IN	NUTRL	TPB	LDF	SE	RISE	DTU	TLU	APRE	ITB
pm per participant:	146	0	0	207.5	86.5	35.4	0	26.5	0	0	0
Start month	1							**End month**			48

The **general objective** of this WP is to successfully demonstrate the sustainable production of different types of MPs a scale from agro-food side streams and prove their downstream application potential for the European and/or Indian m

The **specific objectives** are:

- Improvement of the productivity and robustness of the producing strains
- Validation of the use of waste streams for egg white replacer, Fermotein™ and milk protein production
- Optimisation of fermentation, extraction or downstream purification processes to improve overall efficiency
- Performing pilot-scale fermentation runs to provide end-users with sufficient protein amounts for further pr development, functionality testing and integration in consumer applications in Europe and India
- Performing consumer trials to analyse taste/texture and/or health/nutritional effect, and integrating con feedback in the next iteration round
- Delivery of process data to be used as input for refined LCA, nutritional assessment and TEA in WP4-5, and post-p technology development, production for in-market studies and industrial scale commercialisation

Description of work, lead partner and role of participants

Task 2.1: Development and application of a Fermotein™ product for developing countries (TPB, SE, M1-36)

The iron content of **Fermotein™** (Table 1.1) can help fighting anaemia in developing countries. TPB and SE combined to develop Fermotein™ products for developing countries, depending on local streams available (*e.g.,* Rwanda, APPETITE will focus on an Indian case study.

Subtask 2.1.1 Production of Fermotein™ from potato waste and sugar cane side products from India (TPB, M1-18)

The aerobic fermentation process developed by TPB for **Fermotein™** (food grade, production under ISO22000 systen of mycotoxins, heavy metals and pathogenic organisms) applies a proprietary fungus (more details of the fungus can disclosed yet as Novel Food dossier is prepared and is evaluated at this moment by EFSA and FDA) that can grow on dif carbon sources such as starch, hemicellulose and pectin. Therefore, it can grow also on agro-food residues, such as p waste and sugar cane molasses, two highly abundant crops in India. Cutting wastes, peels, washing waters (rich in st

Work package number	6			Lead beneficiary				APRE		
Work package title	Project management									
Participant number	1	2	3	4	5	6	7	8	9	10
Short name of participant	APRE	BTG	LOBA	PEDAL	EUN	ZSI	AIJU	Q-PLAN	FVA	HSPN
Person months per participant	16	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Start month	1			End month				30		

Objectives

- To ensure an appropriate and efficient coordination as well as project management according to the description of action, the Grant Agreement and the Consortium Agreement (T6.1)
- To ensure compliance General Data Protection Regulation and other ethics issues (T6.2)

Description of work

Task 6.1 Project Management (Leader: APRE; Contributors: all) (M1 – M30)

APRE, as Coordinator, will be responsible for all the contractual obligations as defined in the *Grant Agreement* (GA) and *Consortium Agreement (CA)*, including: **(i)** day-to-day administrative management, **(ii)** control of work progress, including quality assurance and timely delivery of project results (deliverables, milestones, reports, events, etc.) **(iii)** overseeing budget status, including settlement of all financial aspects with the EC; **(iv)** refinement and updating of the work plan, including verification of critical risks for implementation and mitigation measures **(v)** ensuring smooth communication and exchanges within the consortium and with the project officer (EC). The CA will define procedures for administrative, financial and legal management, including IPR. All beneficiaries will sign the CA before the signature of the Grant Agreement. APRE will organise the kick-off meeting at the beginning of the project (M1) in order to build work team for an effective and smooth project implementation. Additional meetings will be organized in M12 and M30 (possibly in conjunction with other events
The coordinator will organize teleconference meetings with all partners once per month
dimension of the consortium, all partners will be invited to attend all meetings. When
organise ad-hock calls and meetings with partners or groups of partners to solve oper
issues. APRE will elaborate the agendas (agreed with the WP and task leaders), send the r
the meetings and compile and distribute meeting reports. The coordinator will mai
communication among the partners based on emails exchange and will share the working
systems. The coordinator will submit the periodic reports (M18 and M30) to the EC with

Example

and task leaders. The reports will include the updated details of the data management plan if necessary. The final periodic report will also indicate the owner(s) of the results (results ownership list), if any.

Task 6.2 Data Management Plan and Ethics (Leader: APRE; Support: all) (M1 – M30)

The Coordinator will ensure compliance to EU Commission requirements in accordance with the Regulation (EU) 2016/6791, the European Union's new General Data Protection Regulation ('GDPR'), regulating the processing by an individual, a company or an organisation of personal data relating to individuals in the EU. GenB activities are mostly targeting minors, therefore all the ethics issues related will carefully considered, providing strict guidelines for the partners (D6.2). APRE, with the contribution of all partners, will prepare and submit the Data Management Plan (DMP) following the recommendation provided in the "Guidelines on FAIR Data Management in Horizon 2020", ensuring that research data can be findable, accessible, interoperable and re-usable (FAIR) and it will be updated in time with the periodic evaluation/assessment of the project (period report) and in case significant changes arise (e.g. new data, changes in consortium policies, changes in consortium composition). During the preparation of the DMP, APRE will verify the possible contributions to the open research data, open EC database and possible contributions to open knowledge repositories. Transparency, legal and social implications of information and knowledge will be considered (D6.3).

Deliverables: D6.1 Quality Management Plan (APRE, M3); **D6.2** Ethical issues Report (APRE, M4); **D6.3** Data Management Plan (APRE, M6)

Project Management Work package

- Possible tasks:
  - Project governance, coordination and strategic decision making
  - Legal, scientific, administrative and financial Management and Reporting
  - Data management
  - Ethical issues
  - Advisory Board Management (optional)
- Possible deliverables:
  - Data Management Plan (M6)
  - Project Management Plan (M4)
  - Ethical requirements (M4)
- *Don’t add as deliverable: technical and financial reports*

Advisory Board

- An advisory board is a body that provides non-binding strategic advice to the management of the project
- The informal nature of an advisory board gives greater flexibility in structure and management
- Provide the mission, the process (meetings) and foreseen a budget
- List the members

Task 6.2 Advisory Board Management (Leader: APRE; Support: all partners) (M1 – M36)
APRE will inform the Advisory Board (AB) members about the meetings (all WPs) organised and will invite them to attend the workshops. The AB members will provide their expert opinions in form of inputs, feedback and recommendations and will support the outreach project results through their professional networks: **Elena De Luca, ENEA - Italy**: analysis, assessment and evaluation of technologies with particular reference to the degree of technological readiness, the potential for industrial development and the environmental and social impacts. She is responsible for the ENEA participation in WinWind, COME RES! and ENTRANCES H2020 projects. Member of the Gender Advisory Council at the International Energy agency (IEA). **Asst. Prof. Dr. Komninos G. Komnios, Member of the Governing Board of the Regulatory Authority for Energy – Greece**: Attorney at law, LL.M., Accredited Mediator, School of Economics, Business Administration & Legal Studies, International Hellenic University. **Mauro Randone, WWF - Italy**: Regional Manager WWF Mediterranean Marine Initiative, Marine Biologist and Sociologist with long-term experience in international cooperation and natural resource management. Mauro is Regional Manager at WWF Mediterranean where he coordinates the Sustainable Blue Economy Programme. **Professor Ben Wilson - UK**: (Scottish Association of Marine Science) an ecologist working to understand the interactions between marine vertebrates (mammals and fish) and industrial activities such as offshore renewable energy extraction, fish farming and oil and gas decommissioning. I am particularly interested in how we impact the acoustic world of these animals. **Dr Andrew Gill PRINCIPAL SCIENTIST & LEAD – OFFSHORE & MARINE RENEWABLE ENERGY** (OMRE) – **UK**: is member of the Advice and Assessment team to support and develop the scientific evidence base. The current focus is as strategic lead for offshore and marine renewable energy (OMRE) and further developing Cefas-wide initiatives into the decarbonisation agenda primarily through offshore renewables. He is also a member of the Centre for Environment, Fisheries, and Aquaculture Science. **Arthur Hinsch** works at **ICLEI** European Secretariat as Officer in the Sustainable Resources, Climate and Resilience team. He focuses on mainstreaming prosumerism of renewable energies and on enhancing their socially inclusive uptake with a particular emphasis on the role of local governments. This includes policy addressing energy poverty and integrated climate & energy planning. Arthur also works on promoting climate neutrality planning/commitments in cities as part of the UN Race to Zero Campaign. He is part of the EU Covenant of Mayors Office.

Example

Dissemination, Communication and Exploitation Work package

- Possible tasks:

- Dissemination and communication plan (or strategy) and materials
- Dissemination and communication activities
- Exploitation of the project results (Replicability, Sustainability: optional)
- Ecosystem building: clustering with other projects and initiatives (optional)

- Possible deliverables:

- Dissemination & Communication Plan (M6)
- Interim Dissemination & Communication actities Report (M18, M36)
- Exploitation Plan (M6, M36)

Table 3.1d: List of milestones

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

Example

N°.	Milestone name	WP	M	Means of verification
M2.1	Fermotein™ production on Indian waste streams is demonstrated	2	18	Fermotein™ used in product application development for consumer trials in India
M2.2	Potato and sugar cane waste streams validated as feedstock for ovalbumin production	2	36	Selected process transferred to BBEPP for scale-up. D2.3 delivered
M2.3	Evaluation of Fermotein™ extracts as alternative egg white replacer	2	25	Selected process ready for to BBEPP for scale-up and to SE for further application development
M2.4	Validation of new feedstocks as fermentation substrate for production of two specific caseins and whey protein	2	12	Feedstock screening and lab optimisation finished. First pilot scale trials at BBEPP on selected protein and new feedstocks finished. Further optimisation ongoing towards D2.5 (M15)
M2.5	Selection of the best performing strain candidates for production of whey protein and two caseins at 150 L scale	2	12	Strain efficiency compared at 5 L scale. Tech transfer to BBEPP for scale-up to 150 L scale of selected proteins
M2.6	Pilot scale validation of milk protein production from selected agro-food side stream	2	24	150 L fermentation of selected milk protein with selected feedstock demonstrated. Titer and yield is similar to ones in lab scale and on sugar feedstock
M2.7	Fresh vegan cheese recipes	2	32	Recipes optimised and MVPs ready for consumer studies
M2.8	Ripened vegan cheese recipes	2	36	Recipes optimised and MVPs ready for consumer studies
M2.9	Biosurfactant with best functional properties in synergy with egg white replacer determined and production upscaled	2	24	Pilot scale production at BBEPP finished. Several 100 g amounts handed over to SE for further application development
M2.10	Final application with Fermotein™, vegan cheese and egg white replacer(/biosurfactant) ready for factory scale trial	2	48	D2.12(M48) delivered. Recipe optimised based on results from consumer studies and all technical/analytical procedures and properties identified for further exploitation

- 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.

Milestones

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

Table 3.1c: List of Deliverables[2]

Only include deliverables that you consider essential for effective project monitoring.

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

- Deliverable numbers in order of delivery dates.
- Please use the numbering convention <WP number>.<number of deliverable within that WP>
- Delivery date measured in months from the project start date (month 1)

Type:
R: Document, report (excluding the periodic and final reports)
DEM: Demonstrator, pilot, prototype, plan designs
DEC: Websites, patents filing, press & media actions, videos, etc.
DATA: Data sets, microdata, etc.
DMP: Data management plan
ETHICS: Deliverables related to ethics issues.
SECURITY: Deliverables related to security issues
OTHER: Software, technical diagram, algorithms, models, etc.

Dissemination level:
PU – Public, fully open, e.g. web (Deliverables flagged as public will be automatically published in CORDIS project's page)
SEN – Sensitive, limited under the conditions of the Grant Agreement
Classified R-UE/EU-R –EU RESTRICTED under the Commission Decision No2015/444
Classified C-UE/EU-C – EU CONFIDENTIAL under the Commission Decision No2015/444
Classified S-UE/EU-S – EU SECRET under the Commission Decision No2015/444

Deliverables

- A report that is sent to the Commission or Agency providing information to ensure effective monitoring of the project. There are different types of deliverables (e.g. a report on specific activities or results, data management plans, ethics or security requirements)
- A deliverable is an element of output within the scope of a project. It is the result of objective-focused work completed within the project process

3.1.4 List of deliverables (table 3.1c);

Del.	Deliverable name	WP N°	Lead part.	Type	Diss. level	Date
D1.1	Harmonised methodology for the calculation of the externalities	WP1		R	SEN	M40
D1.2	Overview and documentation of relevant data for the calculation of the externalities of food	WP1		R	SEN	M40
D1.3	EU-global database on externality costs including an open-source dataset of national external cost values	WP1		DATA	PU	M36
D1.4	FOODCoST VALUATION Guide	WP1		R	PU	M40
D1.5	Measuring degrees of internalisation of externalities	WP1		R	SEN	M42
D2.1	Report on policies with internalised externalities at the EU, national and regional levels	WP2		R	SEN	M18
D2.2	FOODCoST Policy modelling framework for internalisation	WP2		OTHER	PU	M30
D2.3	Report on policy recommendations	WP2		R	PU	M48
D3.1	Overview of innovative value chain and business models and strategies to internalise externalities	WP3		R	SEN	M12
D3.2	Mapping of the barriers	WP3	U ain	R	SEN	M12
D3.3	FOODCoST Business and Value chain INTERNALISATION tools	WP3		OTHER	PU	M30
D3.4	Report on recommendations for primary producers and businesses in the food sector	WP3	U ain	R	PU	M48
D4.1	Map of stakeholders	WP4		R	SEN	M10
D4.2	CoP Engagement Strategy	WP4		R	SEN	M10
D4.3	Lessons learnt, recommendations and action points	WP4		R	SEN	M24, M48

Example

Note from Template

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

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

*Resources assigned to work packages should be in line with their objectives and deliverables. You are advised to include a **distinct work package on 'project management'**, and to give due visibility in the work plan to 'data management' 'dissemination and exploitation' and 'communication activities', either with distinct tasks or distinct work packages.*

You will be required to update the 'plan for the dissemination and exploitation of results including communication activities', and a 'data management plan', (this does not apply to topics where a plan was not required.) This should include a record of activities related to dissemination and exploitation that have been undertaken and those still planned.

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

Example

Table 3.1e: Critical risks for implementation

Description of risk (indicate level of (i) likelihood, and (ii) severity: 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.
Level of severity: Low/medium/high
The relative seriousness of the risk and the significance of its effect

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
Primary optical element, WP4	The plastic injected reflector does not meet the	low	high	Try different materials and injecting machines. Make a second mould with	BECAR, PLAMTEX

#	Description of risk (likelihood/impact on project)	Related WPs	Proposed mitigation measures
1	Difficulty in accessing EU-wide data on health literacy and the related landscape. (low/middle)	WP1 WP5	Efforts will be deployed to gather data on all relevant aspects of the health literacy and landscape on different levels. The consortium will involve its direct networks and other initiatives to gather data from different sources.
2	Failure to mobilize and include a broad range of stakeholders in the co-creation processes. (low/high)	WP2 WP3 WP4	[redacted] consortium has made sure during the development of this proposal that relevant initiatives are addressed by taking on available outputs and integrating trusted communities The consortium will leverage on the partners' networks and on the Advisory Board contacts.
3	Delay due to ethical approval, low response rate to recruitment for co-design (low/medium)	WP4	[redacted] will establish early cooperation with partners and networks to identify requirements and timeline for ethical approval in the respective countries to spark interest and secure the timely delivery of the results.
4	Public awareness about the [redacted]action and results remains low, the sustainability of the outcomes is not granted. (low/high)	WP6	By M5, [redacted] will draft and deliver the initial Impact Master plan covering strategies for stakeholder engagement, communication & dissemination, as well as sustainability of the project. These strategies will be implemented, fine-tuned and monitored throughout the project, with evidence in 4 related interim / final action reports.
5	Volume of work needed beyond the budget and additional work not planned, performed "on demand" (medium/medium)	All	Consortium has a good capacity to plan and monitor project activities and introduce mitigation measures. The monitoring framework will be introduced early to spot the mismatch in the work plan and delivery. The Advisory Board will monitor the quality of the results.

Table 3e - Critical risks for implementation

APRE

Risks Management

- 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
- Level of severity (Low/medium/high): The relative seriousness of the risk and the significance of its effect

Table 3.1f: Summary of staff effort

Please indicate the number of person/months over the whole duration of the planned work, for each work package, for each participant. Identify the work-package leader for each WP by showing the relevant person-month figure in bold.

	WPn	WPn+1	WPn+2	Total Person-Months per Participant
Participant Number/Short Name				
Participant Number/ Short Name				
Participant Number/ Short Name				
Total Person Months				

Example

Partic. No - Short Name	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	WP9	WP10	WP11	Total P/M
n.1 - UTH	0	0	59.5	0	0	0	5	5	7	9	48	**133.5**
n.2 - DIL	2	0	15	0	2	22	37	4	10	1	11	**104**
n.3 - UNIBO	31	12	8	36	34.3	0	2	1	3	1	2	**130.3**
n.4 - UNIPR	0	15	15	28.5	6	6	0.5	3	5	5	1	**85**
n.5 - IFF	0	0	14	0	0	0	8	1	6	1	1	**31**
n.6 - VITO	0	5	18.5	2	0	0	1	1	2	1	1.5	**32**
n.7 - MATIS	1	12	6.5	1	6.5	6	0.5	1	4	1	0.5	**40**
n.8 - NS	2	0	0	12	31	0	2	2	2	2	4	**57**

Table 3.1g: 'Subcontracting costs' items

For each participant describe and justify the tasks to be subcontracted (please note that core tasks of the project should not be sub-contracted).

Participant Number/Short Name		
	Cost (€)	**Description of tasks and justification**
Subcontracting		

Examples

Participant	Cost (€)	Description of tasks and justification
#2 / GAC	15000€	Subcontracting part of the technical development of the health literacy landscape visualisation tool in line with the rule of best service for value.

Table 3g - subcontracting justification

3.1.8 Subcontracting costs (table 3.1g)

2/AKI		
Subcontracting	€40,500	AKI will subcontract to the Hungarian Soybean Producers the following activities: 1) In situ collection of soybean samples (600-800 in total) and of production and technical data, conduction of NIR measurements: € 31,500; 2) Professional assistance in developing and validating a pricing model for locally grown non-GM soybeans: € 6000; 3) Professional assistance in developing a certification scheme and IP label proposal: € 3000.
7/ECO		
Subcontracting	€30,000	ECO will subcontract 30k€ to Tollwood (Germany), 10k€ to GutEssen (Austria): the subcontracts will analyse the national diet recommendations, make proposals for alternative diets, choose participating local canteens, support local canteens in providing information on value chains (purchase analysis) and in executing surveys (canteen responsible as well as consumers). In addition, Tollwood adapts its menu manager to the local requirements in the

Table 3.1h: 'Purchase costs' items (travel and subsistence, equipment and other goods, works and services)

Please complete the table below for each participant if the purchase costs (i.e. the sum of the costs for 'travel and subsistence', 'equipment', and 'other goods, works and services') exceeds 15% of the personnel costs for that participant (according to the budget table in proposal part A). The record must list cost items in order of costs and starting with the largest cost item, up to the level that the remaining costs are below 15% of personnel costs.

Participant Number/Short Name		
	Cost (€)	**Justification**
Travel and subsistence		
Equipment		
Other goods, works and services		
Remaining purchase costs (<15% of pers. Costs)		
Total		

New

Example, not

Example

Total	76,000	
9/PX	**Cost (€)**	**Justification**
Travel	12,000	Travel to regular project meetings, workshops and trade fairs.
Oth good ser	20,000	Consumables and spare parts for pilot scale processing setup.
Total	32,000	
Subcon/cting	1,000	Microbial analysis of live and processed insects (at external lab)
11/IO	**Cost (€)**	**Justification**
Travel	12,400	Travels to project meetings, visits to other partners and 4 congresses presences.
Other goods and services	40,600	Insect production boxes and pallets, consumables (juvenile insect feed and other products, publishing in open access, workshops organization in Santarem
Total	53,000	
12/TALOS	**Cost (€)**	**Justification**
Travel		
Oth good ser		
Total		
13/APRE		
Travel		
Other goods and services		
Total		

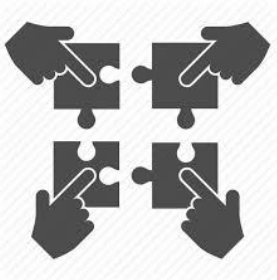
11. FG (including the third party)	**Cost (€)**	**Justification**
Travel	10400	Travel of 1 person to 5 project meetings (T8.2), travel of 1 person to 4 workshops (T2.2), travel of 1 person to workshops/events (T2.3), travel of 1 person to awareness raising events (T5.2)
Equipment	0	
Other goods and services	38200	Organization of 1 workshop and travel reimbursement for 15 stakeholders (T1.2), reimbursement for 2 stakeholders (T2.2), logistics of 2 visits (T2.3), organization of 2 workshops and travel reimbursement for 20 stakeholders (T5.1), logistic of 1 workshop (T5.3)
Total	48600	

12. LUKE	**Cost (€)**	**Justification**
Travel	10400	Travel of 1 person to 5 project meetings (T8.2), travel of 1 person to 4 workshops (T2.2), travel of 1 person to workshops/events (T2.3), travel of 1 person to awareness raising events (T5.2)
Equipment	0	
Other goods and services	90800	Organization of 1 workshop and travel reimbursement for 15 stakeholders (T1.3), reimbursement for 4 stakeholders (T2.2), logistics of 2 visits (T2.3), implementation of actions at Piloting Site (T4.5), logistic of 1 workshop (T5.3)
Total	101200	

3.2 Capacity of participants and consortium as a whole [e.g. 3 pages]

Note: The individual members of the consortium are described in a separate section under Part A. There is no need to repeat that information here.

- Describe the consortium. How does it match the project's objectives, and bring together the necessary **disciplinary and inter-disciplinary knowledge**. Show how this includes expertise in social sciences and humanities, open science practices, and gender aspects of R&I, as appropriate.
- Show how the partners will have access to critical **infrastructure** needed to carry out the project activities.
- Describe how 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 the Work Programme General Annexes B are automatically eligible for EU funding), explain why the participation of the entity in question is essential to successfully carry out the project.



Consortium Building

- A consortium is at the heart of any Horizon Europe project
- Don’t bring your friends
- Do understand the project’s specific needs, then bring the relevant partners
- Always look for Competence, Balance, Complementarity, Excellence, Commitment
- KEEP CONSORTIUM MOTIVATED!!

3.2 Capacity of participants and consortium as a whole

Figure 8 -FOODCoST Consortium

The FOODCoST Consortium consists in **23 beneficiaries** from **13 EU countries** (NL, HU, IT, BE, FR, DE, PT, DK, SK, SE, ES, UK and RO) and **1 associated partner** (DE) (Figure 8). The consortium was formed to have all the necessary skills, experience and resources for the project, available in a coherent and complementary manner. Consequently, the multidisciplinary team covers all expertise required to professionally implement a programme for developing harmonised methods to valuate the externalities along the food chain, to gain insight in possible policy and business models that can foster the transition towards a sustainable food system and to evaluate the impacts of these measures. In the following, a brief description of the organisations and the expertise they bring in the consortium for the successful execution of FOODCoST is reported:

FOODCoST partners profile and key competences	
WR	WR has as an internationally proven experience in policy analyses, including social cost/benefit analyses, impact evaluations, as well as market and chain research and consumer research. WR will bring in its expertise on internalisation of externalities (WP1), experience with data (e.g. Farm Accountancy Data Network) (WP1). WR is leading the EU hub within The Sustainability Consortium (TSC) for impact assessments for consumer products, it delivers knowledge on large scale quantitative macro-economic models (owner of the MAGNET model and leader of the MAGNET consortium and almost 25-year consortium member of the GTAP consortium) to be applied for assessing the effects in the market (WP2 and WP6).
AKI	AKI is a government scientific institute supervised by the Hungarian Ministry of Agriculture carrying out research and policy support activities in connection with the production of soybeans and other protein crops, including analysis of the economics of soybean production and value chain. AKI operates the Hungarian Farm Accountancy Data Network (FADN).
	APRE is a no-profit research organization created as a joint initiative of the Italian Ministry of Education

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. [redacted]	Research	IT	– project coordinator (**WP0**); – member of **TTB** for project exploitation of results; – leader partner in the development of *mCHP and Energy Efficient burner* (**WP1**); – role in the development and integration of the proper technology for pollution reduction (**WP2**); – leading role in the demonstration activities (**WP3**); – leading role in exploitation (**WP6**).
2. [redacted]	University	A	– leader partner in the demonstration activities (**WP3**); – role in the activities for the pollution limitation and retrofitting of the system (**WP2**); – role in the economical analysis (**WP4**).
3. [redacted]	University	N	– leader partner in boilers and stoves' POLICIES and development of a European Legal Framework (**WP5**);

Example

The [redacted] consortium has been set up with expert partners in all relevant key topics (health literacy, mapping, stakeholder engagement, co-creation, capacity building, impact assessment) and are, thanks to these **complementary competences, ideally prepared to tackle the overall challenge and implement the project in line with the objectives set and with impactful results.** All partners have a proven track record in collaborative projects, related to ICT and health/e-health as well as health literacy and digital empowerment (eg. Gravitate Heath, Beamer, CAPABLE, GOT-IT). The specific competences of the partners are presented in the Matrix below:

	[redacted]												
Health literacy	++	+	++	+	+++	+	++	+++	+++	+++	+++	+++	+++
Mapping	+	+++	+	++	+++	+++	+++	+++	++	++	++	+++	+
Stakeholder engagement	+++	+++	+++	+++	++	++	++	++	+++	++	+++	++	+++
Co-creation	++	+++	+++	+++	++	++	+++	++	++	+++	++	+	+
Capacity building	+	+	+++	++	++	+	+	++	++	++	+++	++	++
Impact assessment	++	++	+	++	+	+++	+	+++	+	+	+	+	+
Awareness raising & outreach	+++	+++	+++	+++	++	+	++	++	+++	++	+++	+	++
Data management	+++	++	+	++	+	++	++	+	+	+	+	+	+

Table 5 Complementary competences of the project consortium

Example

ESR

Score: **4.00** (Threshold: 3/5.00 , Weight: -)

The following aspects will be taken into account, to the extent that the proposed work corresponds to the description in the work programme:
- Quality and effectiveness of the work plan, assessment of risks, and appropriateness of the effort assigned to work packages, and the resources overall.
- Capacity and role of each participant, and the extent to which the consortium as a whole brings together the necessary expertise.

The work plan comprises well-designed and well-described work packages. The overall implementation structure and flow between the work packages is appropriate and well presented.

The tasks are generally clear, logical and inter-related. However, some of the tasks are not well described. For example, case study 4 indicates that the consortium will use modelling developed in WP2 to assess the impact of taxes, yet it is unclear how the models to be applied will be chosen. This is a shortcoming.

The proposed deliverables, milestones, and their timing are generally appropriate to reach the project's objectives and will enable the progress of the work to be successfully monitored. However, some of the Deliverables and the means of verification of the Milestones are not differentiated from each other. For instance, Deliverable 6.2 is the same as the means of verification of Milestone 9. This is a minor shortcoming.

On the whole, critical risks are well considered and the proposed mitigation measures are well elaborated and appropriate. However, the proposal does not sufficiently consider the risk of the case studies not being completed on time or challenges to their being carried out in the field. This is a shortcoming.

The risks related to training farmers and the human resources of production companies have not been adequately considered. This is a minor shortcoming.

The resources assigned to work packages are in line with the WP objectives and deliverables. The uneven budget allocation among partners is well justified, as it allows the participation of partners with different roles (conducting research, providing input from industry, providing input from farming associations, and so on). However, the number of months allocated to the leader of WP5 is too low given the complexity and ambition of this work package. This is a minor shortcoming.

Subcontracting costs are generally well justified. However, the costs incurred by Partner 17 are not well aligned with case study 10. This is a minor shortcoming.

The consortium brings together highly qualified partners, whose expertise and past experience are highly relevant for the proposed work and are well documented.

The role of each partner is well defined and logical. However, the role of the advisory board and the responsibilities of the scientific coordinator are not well explained. This is a minor shortcoming.

In addition, the potential involvement of the JRC is unclear and its contribution to the success of the project is therefore questionable. This is a shortcoming.

The consortium brings together partners with different profiles and key competences: academic, industry, growers associations and consumer knowledge, which have complementary expertise and target markets.

ESR

Score: **3.50** (Threshold: 3/5.00 , Weight: -)

The following aspects will be taken into account, to the extent that the proposed work corresponds to the description in the work programme:
- Quality and effectiveness of the work plan, assessment of risks, and appropriateness of the effort assigned to work packages, and the resources overall.
- Capacity and role of each participant, and extent to which the consortium as a whole brings together the necessary expertise.

The arrangement of work packages and their tasks is broadly logical and potentially effective. The arrangement reflects the proposal's stated objectives and methodology well.

In general, work packages are suitably specified and detailed, clearly identifying work package leaders, task leaders and key contributors. However, several important tasks are not adequately defined or sufficiently clear, for example, the practicalities of creating and animating the community of practice, and the justification for placing related tasks in different work packages without sufficiently clear linkages between them. Also, the work to create the stated Living Labs is not sufficiently specified. Together these are a shortcoming.

The initial milestones are appropriate for the overall direction and management of the project. However, the absence of milestones after month 36 leaves a gap for project management. Also, some of the milestones are poorly defined, e.g., MS4 in month 36. This is a minor shortcoming.

The risk assessment table identifies relevant risks, although some of them are internal risks, amenable to managing and planning. Risk mitigation measures often describe how the risk is minimised (rather than mitigated) and many suggested mitigations are unconvincing (e.g., partners with sufficient experience). Many identified risks are rated as 'low likelihood', which is unrealistic, especially with stakeholder engagement at Micro level. Together, this is a shortcoming.

The allocation of resources across the work packages is mostly appropriate to the efforts planned within each work package. However, the resources for WP4 are insufficient for the scale of the task. The time allocations for project management, particularly for Work Package leaders is too low, particularly as they have the same allocation as any other partner. The resource plan makes no obvious provision for compensating external participants, e.g., for their attendance at meetings. These are shortcomings.

The expertise of the consortium is mostly adequate and clear, with relevant information provided for most partners. The consortium has most of the necessary expertise for the proposed workplan, and the partners are complementary, encompassing the different levels of stakeholders (policy, intermediaries, public, private, businesses/industry representatives), and the various themes, such as agriculture, forestry, and rural development.

However, the allocation of roles is insufficiently justified for a small number of the partners and the work packages. For example, in WP4 the proposal does not demonstrate clearly that the relevant expertise in leadership will be deployed. This is a minor shortcoming.

ESR

Criterion 3 - Quality and efficiency of the implementation

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

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

- Quality and effectiveness of the work plan, assessment of risks, and appropriateness of the effort assigned to work packages, and the resources overall.

- Capacity and role of each participant, and the extent to which the consortium as a whole brings together the necessary expertise.

Overall, the proposal successfully addresses all relevant aspects of the criterion. In particular:

- The work plan is structured logically it will credibly deliver the project objectives. It is appropriately broken down into consistent work packages and tasks that are clearly defined and interrelated to each other in a logical sequence and flow of activities. Milestones are appropriately set along the project and they will allow for efficient project monitoring. Deliverables are well defined and appropriate to track project progress.

- The effort assigned to the various work packages in terms of person-months and budget is in line with the activities to be undertaken. Overall, each participant has the necessary resources to fulfil its role in the project.

- Each of the individual participants possesses the required operational capacities and will cover a well-identified role in the project.

- The consortium as a whole brings together all the experience and expertise necessary to execute the project. It is made up by a complementary mix of academic institutions covering SSH topics, public bodies, agricultural sector representatives, and associations of end users from the countries where the case studies are planned. The consortium convincingly draws upon a broad range of social sciences, e.g. anthropology, sociology, political science, political philosophy, geography, history and languages.

Nevertheless, a minor shortcoming is present, namely:

- The mitigation measures for some critical risks are insufficiently substantiated. For example, the mitigation measure proposed for the risk of "Change of pivotal partners" is not convincingly effective.

Useful documents

- EU Grants: HE Programme Guide: V1.2 – 04.10.2021

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/programme-guide_horizon_en.pdf

- EU Funding & Tenders Portal: Online Manual: V1.0 – 08.02.2021

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/om_en.pdf

- List of Eligible countries

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/list-3rd-country-participation_horizon-euratom_en.pdf

Proposal Part A

Section 4 'Ethics Issues Table' – 10 Questions:

1. HUMAN EMBRYONIC STEM CELLS AND HUMAN EMBRYOS			Page
Does this activity involve Human Embryonic Stem Cells (hESCs)?		○ Yes ○ No	
If YES:	Will they be directly derived from embryos within this project?	○ Yes ○ No	
	Are they previously established cells lines?	○ Yes ○ No	
	Are the cell lines registered in the European registry for human embryonic stem cell lines?	○ Yes ○ No	
Does this activity involve the use of human embryos?		○ Yes ○ No	
If YES:	Will the activity lead to their destruction?	○ Yes ○ No	
2. HUMANS			Page
Does this activity involve human participants?		○ Yes ○ No	
If YES:	Are they volunteers for nonmedical studies (e.g. social or human sciences research)?	○ Yes ○ No	
	Are they healthy volunteers for medical studies?	○ Yes ○ No	
	Are they patients for medical studies?	○ Yes ○ No	
	Are they potentially vulnerable individuals or groups?	○ Yes ○ No	
	Are they children/minors?	○ Yes ○ No	
	Are they other persons unable to give informed consent?	○ Yes ○ No	
Does this activity involve interventions (physical also including imaging technology, behavioural treatments, etc.) on the study participants?		○ Yes ○ No	
If YES:	Does it involve invasive techniques?	○ Yes ○ No	
	Does it involve collection of biological samples?	○ Yes ○ No	
Does this activity involve conducting a clinical study as defined by the Clinical Trial Regulation (EU 536/2014)? (using pharmaceuticals, biologicals, radiopharmaceuticals, or advanced therapy medicinal products)		○ Yes ○ No	

Example, not to complete

If 'yes' for any questions, ethic-self assessment to be completed in Part A ***(next slide)***

Proposal Part A — Section 4 'Ethics Issues Table' – Explanation:

ETHICS SELF-ASSESSMENT

If you have entered any issues in the ethics issue table, you must perform an ethics self-assessment in accordance with the guidelines "How to Complete your Ethics Self-Assessment" and complete the table below.

Ethical dimension of the objectives, methodology and likely impact
Explain in detail the identified issues in relation to: – objectives of the activities (e.g. study of vulnerable populations, etc.) – methodology (e.g. clinical trials, involvement of children, protection of personal data, etc.) – the potential impact of the activities (e.g. environmental damage, stigmatisation of particular social groups, political or financial adverse consequences, misuse, etc.)
Compliance with ethical principles and relevant legislations
Describe how the issue(s) identified in the ethics issues table above will be addressed in order to adhere to the ethical principles and what will be done to ensure that the activities are compliant with the EU / national legal and ethical requirements of the country or countries where the tasks are to be carried out. It is reminded that for **activities performed in a non-EU countries**, they should also be allowed in at least one EU Member State.

Sample, not to complete

Explanation about how you will deal with your Ethics issues in the proposal

Provide appropriate documents as evidence

If not, timeframe for approvals/ authorizations

Proposal Part A

- Section 4 'Ethics Issues Table' – 10 Questions:
  1. **Human embryo*/foetuses**
  2. **Humans***
  3. **Human cells/tissues***
  4. **Protection of personal data** (collection, recording, storage, deleting)
  5. **Animals** (favour alternative methods – 3 R's: Replacement, Reduction, Refinement)
  6. **Non-EU countries*** (prohibited in EU, exploitation, risks)
  7. **Environment, Health, Safety** (fauna/flora, humans, research staff)
  8. **Dual-use** (military application!?)
  9. **Exclusive focus on civil applications**
  10. **Misuse** (malevolent use of research results)
  11. **Other ethics issues**

In Horizon Europe ,substituted by section: ***Human embryonic stem cells (hESCs) and human embryos (hEs)***

* Informed consent/Information sheet

In Horizon Europe ,substituted by section: ***Artificial intelligence***

How to complete your Ethics self-assessment

Partenariati Vincenti e perdenti in Horizon 2020: Quali Caratteristiche?

Dalla prospettiva del Valutatore

Criterion	DO	DON'T
Excellence	Define objectives clearly. Be ambitious, but stay realistic. Choose appropriate methodology. Choose relevant partners and reliable coordinator. Put effort on describing the state-of-art and proof of concept. Create links with previous networks/projects and relevant policies. Engage interdisciplinary expertise. Stay accurate, concise throughout the proposal Bring out the innovation potential. If something stays unclear, contact your NCP.	Don't rush; poorly prepared proposal ruins even the most excellent plans. Don't repeat something what is already done. Don't forget to include partners from differe regions, disciplines, stakeholder groups to compose a balanced consortium. Don't forget to show the credibility of your consortium. Don't hesitate to provide detailed descriptio about your methodology, technical solution etc. Superficial description of the processes is often brought out as a major shortcoming If you have a novel approach – don't forget to describe it thoroughly and to support it with relevant references.

Dalla prospettiva del Valutatore

Impact	When planning be concrete and precise. Quantify as much as possible. Use financial figures and develop a business model and/or business plan. Elaborate a convincing commercialisation plan. Take into account all the expected impacts described in the topic. Expected impacts should be derived and justified on previous results. Plan a good cooperation with end users from the beginning of the project. Involve policy makers, SMEs and industry in the proposal or plan a sustainable cooperation with them. Describe industrial uptake of research results in details. Develop an excellent dissemination plan (with diverse dissemination measures). Address adequately and clearly explain dissemination of project results. Ask for evaluation of impacts (by professionals). Ask NCPs for cooperation.	Don´t list irrelevant and unreal impacts. Don´t try to be very optimistic as it may cause the lack of credibility. Don´t use general descriptions, without any specific focus. Don´t use a weak or general analysis of the market and competition. Don´t miss concrete market details: potential market volumes, which markets, specific products, prices, etc. Don´t copy proposal´s parts (mainly IPR management) from your previous project proposals. Don´t forget that the impact should be related to the particular concept, not to the call fiche. Don´t repeat (or copy) required impact from the call instead of development of your own proposal content. Don´t confuse dissemination with communication or exploitation. Don´t forget to use concrete information about expected environmental savings.

Dalla prospettiva del Valutatore

Implementation	Concrete and precise planning. Details and Quantification. Use Tables. Well-timed tasks and activities with well-balanced allocation to partners. Well-balanced and justified resources and budget. Consortium with partners who complement and synergize well in expertise and tasks. Consultation with NCP.	Don't use repetitions from within the text of the proposal. Don't do "copy-pastes" from other/ previous proposals. Don't forget the details - unsubstantiated/ unreferenced content/ figures/ numbers are causing a negative impression. Don't take beneficiaries/ Partners who are "joyriders" with no significant role and tasks. Don't plan vague Deliverables and Milestones. Lack of "Plan B" and contingency measures.

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THANK YOU!

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