How approach a good proposal in Cluster 6 funding opportunities
with experiences from Widening Countries

PROPOSAL WRITING

Federica Tanghetti, APRE, NCP_WIDERA.NET
Annachiara Alberico, APRE, CARE4BIO

AGENDA

Welcome & Training Objectives
Introduction to Cluster 6

Key Concepts: where do we begin?

Focus on Part B: Building your Proposal
Excellence - The scientific core
Integrating SSH in Cluster 6

Impact - Thinking beyond the project
Results, Outcomes or Impact?

Implementation – Turning plans into action
DCE (Dissemination, Communication & Exploitation) in Action

Final Quiz: Who wants to Write a Cluster 6 Proposal?

Key Concepts:
Where do we begin?

HORIZON EUROPE

EURATOM

SPECIFIC PROGRAMME: EUROPEAN DEFENCE FUND

Exclusive focus on defence research & development

Research actions

Development actions

SPECIFIC PROGRAMME IMPLEMENTING HORIZON EUROPE & EIT

Exclusive focus on civil applications

Pillar I
EXCELLENT SCIENCE

European Research Council

Marie Skłodowska-Curie

Research Infrastructures

Pillar II
GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS

Clusters

- Health
- Culture, Creativity & Inclusive Society
- Civil Security for Society
- Digital, Industry & Space
- Climate, Energy & Mobility
- Food, Bioeconomy, Natural Resources, Agriculture & Environment

Joint Research Centre

Pillar III
INNOVATIVE EUROPE

European Innovation Council

European innovation ecosystems

European Institute of Innovation & Technology*

WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA

Widening participation & spreading excellence
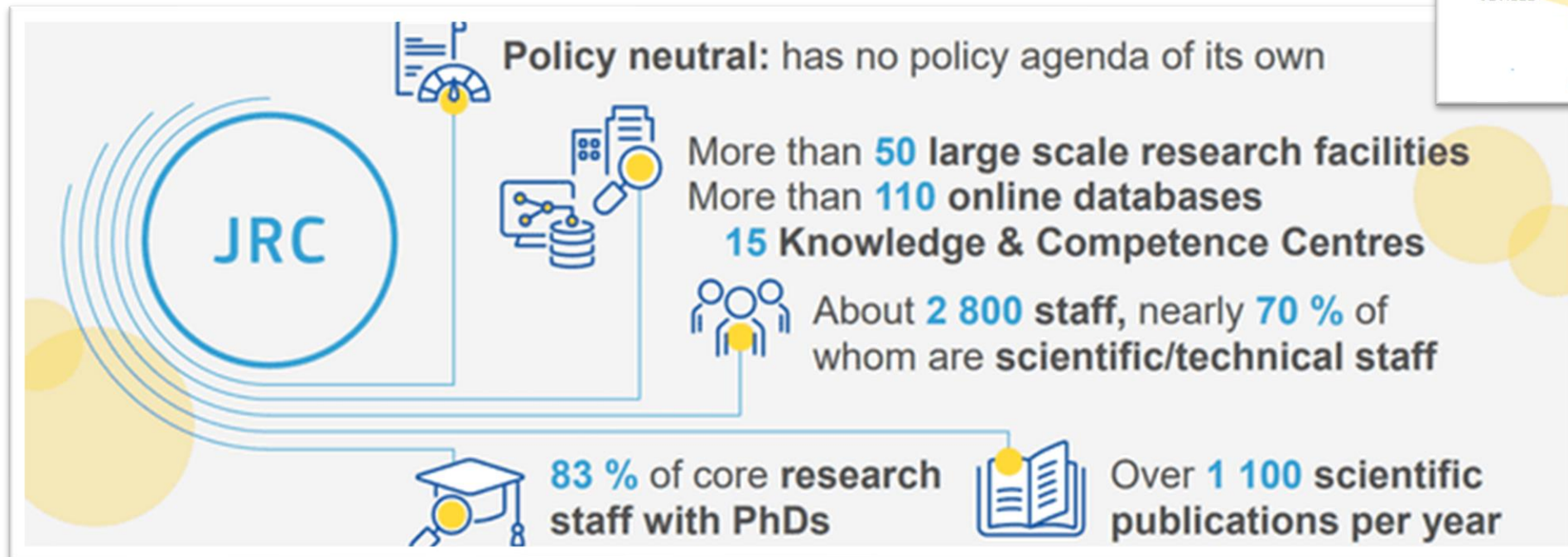
Reforming & Enhancing the European R&I system

Fusion

Fission

Joint Research Center

* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

JRC – JOINT RESEARCH CENTER

- *JRC Mission: As the science and knowledge service of the Commission our mission is to support EU policies with independent evidence throughout the whole policy cycle.*

Policy neutral: has no policy agenda of its own

More than **50 large scale research facilities**
More than **110 online databases**
15 Knowledge & Competence Centres

About **2 800 staff**, nearly **70 %** of whom are **scientific/technical staff**

83 % of core **research staff with PhDs**

Over **1 100 scientific publications per year**

JRC − Knowledge Centres

Knowledge Centre for
DISASTER RISK
MANAGEMENT

Knowledge Centre on
MIGRATION AND DEMOGRAPHY

Knowledge Centre for
TERRITORIAL POLICIES

CO₂

Knowledge Centre for
BIOECONOMY

Knowledge Centre for
FOOD AND NUTRITION
SECURITY

Knowledge Centre for
FOOD FRAUD AND QUALITY

JRC IN HE – *GENERAL ANNEX*

- Where provided for in the specific call conditions, applicants may include in their proposals the possible contribution of the JRC but the <u>JRC will not participate in the preparation and submission of the proposal.</u>

- Applicants will indicate the contribution that the JRC could bring to the project based on the scope of the topic text

- After the evaluation process, the JRC and the consortium selected for funding may come to an agreement on the specific terms of the participation of the JRC.

- If an agreement is found, the JRC would accede to the grant agreement as beneficiary requesting zero funding and would accede to the consortium as a member

SINGLE STAGE vs TWO-STAGE submission

- Evaluation procedure and ranking Calls may be subject to either a single-stage submission procedure or a two-stage submission procedure. The evaluation procedure could be organised in one (standard) or several steps.

- In the first stage of two-stage submission, applicants will be requested to submit only an outline application (which will be evaluated against only two award criteria: 'Excellence' and 'Impact').

- Successful applicants will be invited to submit a full application for the second stage (which will be evaluated against the full set of award criteria).

TWO STAGES – BLIND EVALUATION

Blind evaluation (in 1st stage)

What does this mean: In the case of the two-stage proposal submission procedure, proposals may be evaluated in the first stage without applicants revealing their identity (e.g. names of organisations, acronyms, logos, names of staff) in Part B of the proposal – this is the **blind evaluation** initiative introduced under Horizon Europe.

- There is no evidence that the current proposal evaluation system is systematically biased.

- There are understandable concerns that evaluation experts may be swayed – perhaps unconsciously – in favour of proposals from well-known organisations in countries with better performing R&I systems.

- 'Blind' evaluation is a way to remove any real or perceived effect of such reputational bias.

- Experts evaluate without knowing the identity of participants.

- The work programme will include an additional admissibility criterion: applicants can not be disclosed in the narrative part of the proposal.

FINANCIAL SUPPORT FOR THIRD PARTIES (FSTP)

- Under this mechanism, the beneficiary consortium is sometimes mandated to distribute funding to third parties through open calls. In some cases, the calls target SMEs and start-ups specifically, financing activities such as studies, experiments, or pilot actions. The amount can vary from €50,000 to €150,000 and can be provided in the form of vouchers for support activities or prizes.

- https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/competitive-calls

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

CSA stage one:

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

Horizon Europe Programme

Standard Application Form (HE RIA, IA)

Application form (Part A)
Project proposal – Technical description (Part B)

Version 8.0
4 April 2024

Application form (proposal template)

Same structure

The proposal contains two parts:

- **Part A** (web-based forms) 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.
- **Part B** is the narrative part that includes three sections that each correspond 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.

Admissibility

- Applications must be **submitted before the call deadline**
- Applications must be **submitted electronically** via the Funding & Tenders Portal electronic submission system
- Applications must be submitted **using the forms provided** inside the electronic submission system
- Applications must be **complete** and contain all parts and mandatory Annexes and supporting documents
- Applications must be **readable, accessible and printable**
- Applications must include a **plan for the exploitation and dissemination** of results including communication activities, unless provided otherwise in the specific call conditions. The plan is not required for applications at the first stage of two-stage procedures

Admissibility – Page limits

- For a full application is 45 pages, for topics using lump sum funding, the limit is 50 pages (RIA/IA)

- For CSA the limit is 30 pages, for topics using lump sum funding, the limit is 33 pages

- For a first-stage application is 10 pages

If an application exceeds the limits, there will be an automatic warning and invitation to resubmit a version that conforms to these limits. After the call deadline, **excess pages** will be automatically made invisible, and will not be taken into consideration by the evaluators

Eligibility – Consortium composition

- The consortium includes:
  - at least one independent legal entity established in a Member State; and
  - at least two other independent legal entities, each established in different Member States or Associated Countries.
- Applications for 'Coordination and support' actions may be submitted by one or more legal entities, which may be established in a Member State, Associated Country or, in exceptional cases and if provided for in the specific call conditions, in another third country
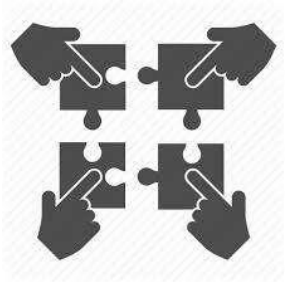
Consortium Building

- 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

Multi-actor approach: definition

- Building blocks for the project proposal are expected to come from science as well as from practice: it is a **'co-creation' process!**

- Practitioners and (end) users are to be involved, **not as a study-object**, but to use their practical and local knowledge and/or entrepreneurial skills to develop solutions and create 'co-ownership' of results for (end-) users and practitioners.

- This will contribute to and **speed up the acceptability and uptake** of new ideas, approaches and solutions developed in the project.

Eligibility – Entities eligible for funding

Applicants must be established in one of the **eligible countries**:

- the Member States of the European Union, including their outermost regions;

- the Overseas Countries and Territories (OCTs) linked to the Member States;

- eligible non-EU countries :
  - countries associated to Horizon Europe
  - low- and middle-income countries
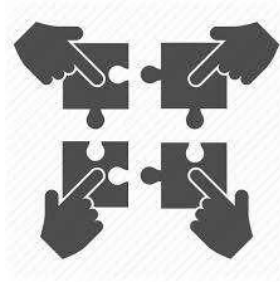
Eligibility – formatting conditions

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).
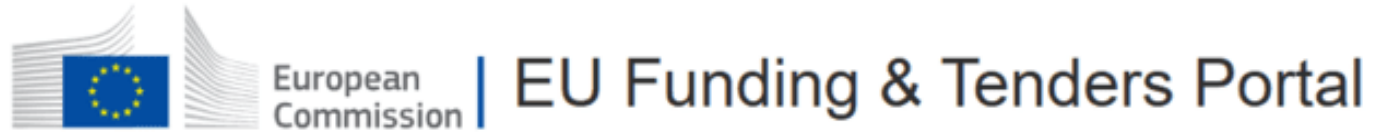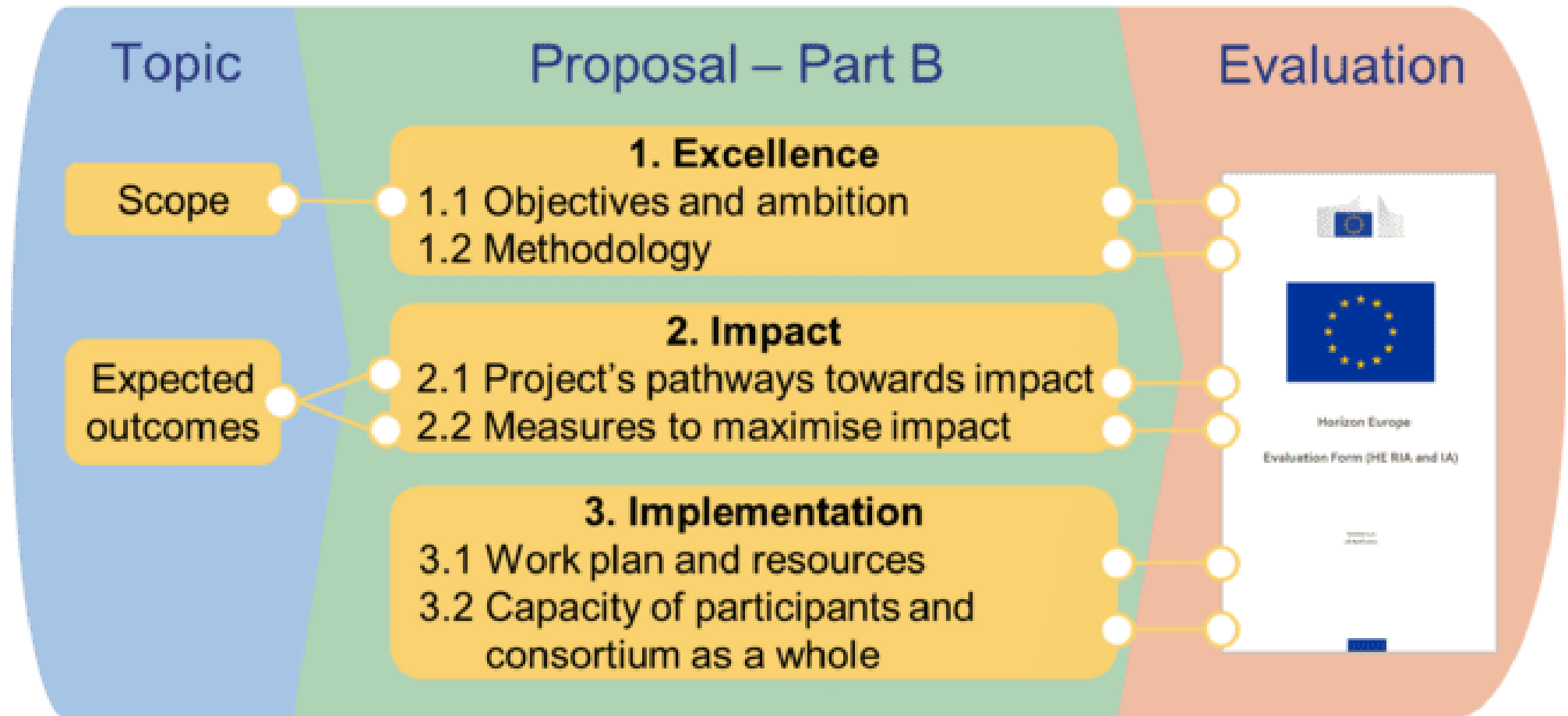
Topic identification

Example

- Type of action
- Deadline date
- Budget available
- **Topic description**
- **Topic destination** (Main expected impacts)
- Admissibility conditions
- Other eligibility conditions

EU Funding & Tenders Portal

European Commission

HE template – part B

Topic

Scope

Expected outcomes

Proposal – Part B

1. Excellence
1.1 Objectives and ambition
1.2 Methodology

2. Impact
2.1 Project's pathways towards impact
2.2 Measures to maximise impact

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

Evaluation

Horizon Europe

Evaluation Form (HE RIA and IA)

Part B Section 1 – Excellence
The scientific core

Proposal template Part B: technical description

1. <mark>Excellence</mark>

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, ▮▮▮▮▮▮▮▮ 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: ▮▮▮▮▮▮▮ *Policy modelling framework for INTERNALISATION* ready at **M36**; ▮▮▮▮▮▮▮ *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)

- 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 1

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, ▮▮▮▮▮▮▮ 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 ▮▮▮▮▮▮
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. ▮▮▮▮▮▮▮ 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.

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.

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)

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
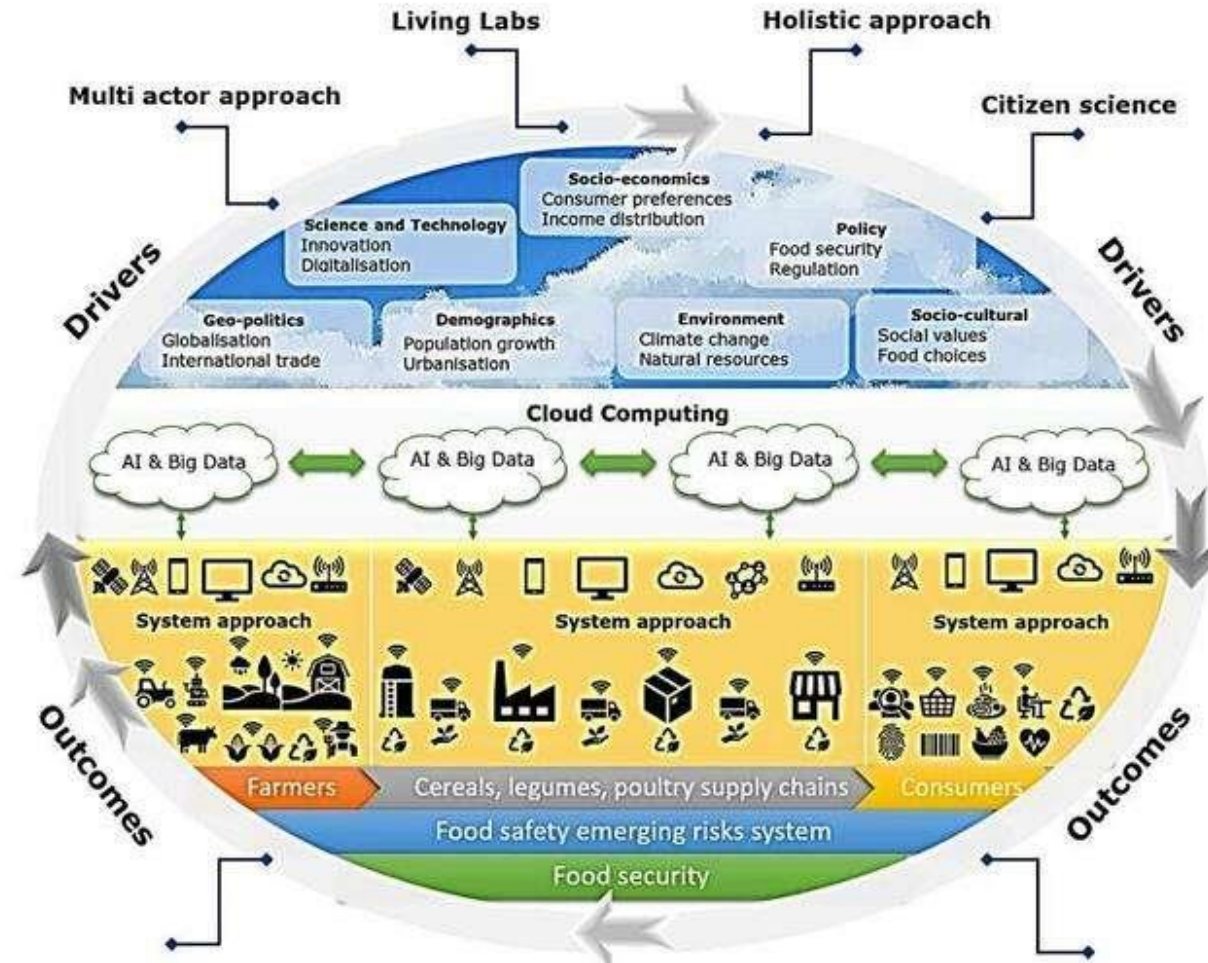
HORIZON-CL6-2023-FARM2FORK-01-10: Eradicate micronutrient deficiencies in the EU

HORIZON-CL6-2023-FARM2FORK-01-10: Eradicate micronutrient deficiencies in the EU

Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 9.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 9.00 million.
Type of Action	Research and Innovation Actions
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: the proposals must apply the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part. The Joint Research Centre (JRC) may participate as member of the consortium selected for funding.

HORIZON-CL6-2023-FARM2FORK-01-10: Eradicate micronutrient deficiencies in the EU

Expected Outcome: In line with the European Green Deal priorities, the farm to fork strategy for a fair, healthy and environment-friendly food systems, and the EU's climate ambition for 2030 and 2050, the successful proposal will support R&I to eradicate micronutrient deficiencies in the EU and Associated Countries. It will contribute to the transformation of food systems to deliver co-benefits for climate (mitigation and adaptation), biodiversity, environmental sustainability and circularity, dietary shift, sustainable healthy nutrition and safe food, food poverty reduction and empowerment of communities, and thriving businesses.

The main objective of this topic is to contribute to the eradication of micronutrient deficiencies and reduction of nutrition inequalities across EU and Associated Countries at different levels (e.g. countries, regions, urban/rural/coastal areas) and for different communities of vulnerable groups such as infants, elderly, pregnant women, people with food intolerances/allergies, people with metabolic disorders on the one hand, and migrants and low income groups on the other hand.

Excellence

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:
- 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.

... of the main objectives of the proposal are very pertinent to the topic text because they focus on mapping and monitor micronutrient deficiencies among different populations, its determinants and predictors, impact on public health and health costs and the development of interventions that are underpinned by scientific evidence.

The proposal addresses very well the mapping and monitoring of specific vulnerable groups suffering from micronutrient deficiencies because a comprehensive list of databases and surveys has been compiled, the proposed statistical modelling is described, and, in addition, the proposal identified drivers of deficiency and criteria for classifying deficiency, thereby demonstrating a very good knowledge base of the topic.

All the main and specific objectives of the proposal are clear because they are very well formulated.

All of the main and specific objectives are measurable and verifiable. The proposal provides a very detailed account of the activities that the consortium will undertake for the completion of the project.

All of the main and specific objectives of the proposal are realistically achievable within the duration of the proposed work because they are very focused and well thought through. This is very good.

The proposed work is sufficiently ambitious and goes beyond the state of the art to a very good extent because the proposal will use novel data and applications of dietary modelling to predict effectiveness of preventive strategies. These novel approaches will present a new conceptual approach, to estimate the economic costs of combined deficiencies across Europe and present new data for development of biomarkers in micronutrients status.

The overall methodology is very sound and very credible because the proposal focuses on key micronutrients and vulnerable groups which is excellent.

The interdisciplinary approaches are very well addressed because they cover methods from various aspects of the micronutrient research field. Expertise from the following disciplines, medicine, endocrinology, epidemiology, economics, biostatistics, dietary modelling, human nutrition, dietetics, metabolomics, food science and technology, analytical and clinical chemistry, food composition are convincingly integrated in the methodology.

Open science (OS) practices are very well implemented in the methodology. All mandatory OS practices have been met and a specific task is set on this aspect to facilitate the consortium's commitments to achieving these goals in line with EC guidelines and requirements. The integration of OS practices is excellent and well adapted to the nature of the proposed work.

The Multi-Actor Approach is very well adopted in the proposal to maximise the impact of the proposed activities because there is involvement at all stages of the project. This approach will allow for the engagement of a wide range of stakeholders such as government, regulatory authorities, industry, civil society and scientists that will contribute to the identification, analyses and co-design of policy-ready solutions. This is excellent.

All actors are well involved all along the project and the needs and opportunities of the end-users of the results are well targeted because the project will establish an international virtual community which will have a very wide membership. This approach is excellent.

The gender dimension in the research and innovation content is very well integrated in the proposal because this aspect is central to the study design and there is acknowledgement that some micronutrient deficiencies are affected by gender. In addition there are detailed and impressive plans for taking gender into consideration at all stages of the project.

The technical robustness of the proposed AI-system is not sufficiently demonstrated and this is a minor shortcoming.

European Commission

Impact

The following aspects will be taken into account, to the extent that the proposed work corresponds to the description in the work programme:
- 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 from 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 contribution of the project to improved knowledge of the true prevalence of human micronutrient deficiencies across EU and Associated Countries and development of proposals for optimal interventions to eradicate micronutrient deficiencies in different target groups is excellent and it is very credible because it will measure the distribution of priority micronutrient status markers and intakes across representative samples of the European population by concentrating the research effort on currently available micronutrient data and biobanks from National nutrition and health surveys and cohorts.

The contribution of the project to improved knowledge and understanding of micronutrient functionality and metabolism during food digestion at different critical periods of life is very good and it is very credible because several studies will be carried out on priority micronutrients to generate data on bioavailability and metabolism, examine interactions with the gut microbiome, employ -omics techniques to identify novel biomarkers, and assess bioavailability using prediction equations and newly derived dietary data on modulators that impact absorption.

The contribution of the project to reduction of nutrition inequalities by providing solutions at a general population level across EU and Associated Countries is good. However, it is less credible that the project's results, such as economic modelling of dietary strategies to eradicate micronutrient deficiencies, will contribute to solutions to reduce inequalities at a general level. This is a minor shortcoming.

The contribution of the project to eradication of micronutrient deficiencies by providing solutions particularly for the vulnerable population groups in shifting towards a healthier diet is very good and credible because the consortium is focusing on the priority list of micronutrients defined globally by the Micronutrient Forum and uses food-focused approaches for increasing micronutrient intakes and status, considering sustainability, health and inclusivity.

The contribution of the project for a better understanding of the health costs resulting from micronutrient deficiency, is good. It is credible that the project's focus on estimating the costs of health and productivity impacts from micronutrient deficiencies will lead to such an understanding.

The scale and significance of the contributions of the proposal and its results to the expected outcomes are well estimated and quantified and are credible because of the focus on vulnerable groups over the lifecycle and the effect on improved quality of life and reduced number of disability of life years. This is excellent.

The contribution of the project in the longer term to the eradication of micronutrient deficiencies is very good and it is credible because the findings from the various work packages will be combined for dissemination to the relevant actors, thereby facilitating positive action.

The scale and significance of the contributions of the proposal and its results to the expected impacts are well estimated and quantified and are credible because of the scientific approach and methodology to map deficiencies, predictors, intake and distribution, and the cost-effectiveness of different food strategies.

Potential barriers to the expected outcomes and impacts have been sufficiently demonstrated and the proposed approaches to overcome these barriers are adequately developed.

The proposed dissemination measures are very suitable for the project and are of high quality because they include an analysis of stakeholders, suitable dissemination outlets, including policy labs, channels, including white paper and policy documents and information material to the wider audience.

The proposed exploitation measures are very suitable for the project and are of very high quality because they have been designed to target specific users which is very good.

A set of actions and relevant target groups are very clearly identified and how these groups will be reached is very detailed. The consortium plans to establish a virtual network of multi-actors and stakeholders that will involve many organisations and projects, surveys and databases in Europe. This is very good.

The proposed communication measures to reach out to society are of good quality because they include different measures to increase visibility of results and also training. A set of actions and relevant target groups are clearly identified and how these groups will be reached is sufficiently detailed. This is excellent.

The proposal provides a strategy for the management of intellectual property which will be outlined in a Data Management Plan. This proposed approach is excellent.

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 <u>life cycle approach</u>, 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: <u>https://ec.europa.eu/info/sites/default/files/c2021_1054_en.pdf</u>

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

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]
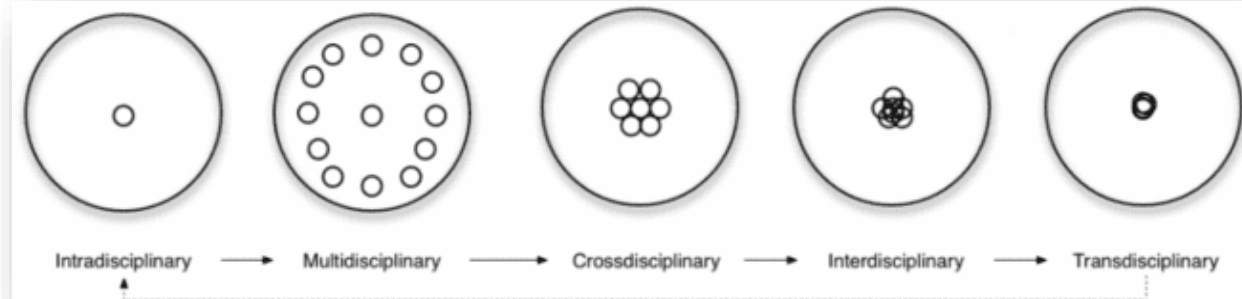
Example

1.2.2 Link with other R&I activities

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

Project	Outcome and valorisation in ████████████
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 of ████████████ ivities (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 ████████████ 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. ████████████ 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

Intradisciplinary → Multidisciplinary → Crossdisciplinary → Interdisciplinary → Transdisciplinary

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

SSH Disciplines: let's brainstorm!

Social Sciences

Humanities

SSH Disciplines: let's brainstorm!

Social Sciences

Sociology, psychology, law, political science, human rights, economics, public and business administration, demography, anthropology (except physical anthropology), geography (except physical geography), peace and conflict studies, education science, journalism and communication

Humanities

Cultural studies, Religion studies, linguistics, literature, history, archaelogy, philosophy, ethics, design, arts

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.

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

GENDERED INNOVATIONS
How Inclusive Analysis Contributes to Research and Innovation

24 NOVEMBER 2020

"As EU Commissioner for Innovation, Research, Culture, Education and Youth, and holding gender equality matters very close to my heart, I am determined to step up our efforts on equality. I am committed to ensuring that the gender dimension is fully integrated into research and innovation content in Horizon Europe, and that it is fully acknowledged in the European Research Area."

Mariya Gabriel, Commissioner for Innovation, Research, Culture, Education and Youth

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'

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).

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).

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

European Commission

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

1.2 Methodology

- **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.

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

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.

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

The aspect of gender dimension, as part of the risk assessment process, has been referred to in consumer surveys and data collection, however it is insufficiently described. This is a minor shortcoming.

The proposal has a robust approach to Open science practices and requirements. These are adequately addressed in the description of the preliminary data management plan and include the needed FAIR principles. The plan to share pre-print versions and adopt open peer-review wherever possible, is a positive aspect of the proposal.

Example