Guidance for evaluators of Horizon 2020 proposals

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The below information serves as guidance both for applicants and evaluating experts. The questions are frequently asked about Horizon 2020 proposals.

1. How should Innovation be addressed and evaluated in proposals?

Horizon 2020 supports all stages in the research and innovation chain and a natural integration and continuum of activities. It provides seamless funding embracing frontier research, basic and applied research, technology development and integration, prototyping, testing and validation, and demonstrating, piloting and first market replication.

The programme pays particular attention to ensuring a balanced approach to research and innovation, not only limited to the development of new products and services on the basis of scientific and technological breakthroughs, but also incorporating aspects such as the use of existing technologies in novel applications, continuous improvement and non-technological and social innovation.

In particular for Societal Challenges and Leadership in Enabling and Industrial Technologies, there is an emphasis on research and innovation activities complemented with activities which operate close to the end-users and the market, such as demonstrating or piloting.

The role of innovation varies according to the type of action:

• Research and Innovation Actions primarily consist of activities aiming to establish new knowledge and/or to explore the feasibility of a new or improved technology, product, process, service or solution. For this purpose they may include basic and applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory or simulated environment.

<u>Note</u>: Research and Innovation Actions may contain closely connected but limited demonstration or pilot activities aiming to show technical feasibility in a near to operational environment.

• *Innovation Actions* primarily consist of activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services. For this purpose they may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication.

Note: Innovation Actions may include limited research and development activities.

<u>Note</u>: under *Innovation Actions*, a 'demonstration or pilot' aims to validate the technical and economic viability of a new or improved technology, product, process, service or solution in an operational (or near to operational) environment, whether industrial or otherwise, involving where appropriate a larger scale prototype or demonstrator.

<u>Note</u>: under <u>Innovation Actions</u>, a 'market replication' aims to support the first application/deployment in the market of an innovation that has already been demonstrated but not yet applied/deployed in the market due to market failures/barriers to uptake. 'Market replication' does not cover multiple applications in the market of an innovation that has already been applied successfully once in the market. 'First' means new at least to Europe or new at least to the application sector in question. Often such projects involve a validation of technical and economic performance at system level in real life operating conditions provided by the market.

For Societal Challenges and Leadership in Enabling and Industrial Technologies, in particular, this will also include, where appropriate, activities in support of social innovation, and support to demand side approaches such as pre-standardisation or pre-commercial procurement, procurement of innovative solutions, standardisation and other user-centred measures to help accelerate the deployment and diffusion of innovative products and services into the market.

- **Pre-Commercial Procurement** means the procurement of R&D services involving risk-benefit sharing under market conditions, and competitive development in phases, where there is a clear separation of the R&D services procured from the deployment of commercial volumes of end-products.
- **Public Procurement of Innovative Solutions** means procurement where contracting authorities act as a launch customer for innovative goods or services which are not yet available on a large-scale commercial basis, and may include conformity testing.

Evaluators will check that the proposed activities are in line with the type of action implementing the call or topic. They will pay particular attention to key aspects of the award criteria and key elements to be provided as part of a proposal, notably:

• Under the 'Excellence' criterion, to evaluate the extent to which the proposed work has innovation potential, with particular reference to the corresponding section(s) in the proposal. All aspects of the 'Impact' criterion will receive particular attention, i.e. the extent to which project outputs should contribute to the expected impacts described for the topic, to enhancing innovation capacity and integration of new knowledge, to strengthening the competitiveness and growth of companies by developing and delivering innovations meeting market needs, and to other environmental or social impacts, as well as the effectiveness of the exploitation measures.

The proposers' description of any barriers/obstacles, and any framework conditions (such as regulation and standards), that may determine whether and to what extent the expected impacts will be achieved will also be checked.

The experts will also consider the draft plan for the dissemination and exploitation of the project's results, the explanation of how the proposed measures will help to achieve the expected impact of the project, and the strategy for knowledge management and protection.

• Under the 'Quality and efficiency of the implementation' criterion, a particularly relevant aspect concerns how effective innovation management will be addressed in the management structure and work plan. Innovation management is a process which requires an understanding of both market and technical problems, with a goal of successfully implementing appropriate creative ideas. A new or improved product,

service or process is its typical output. It also allows a consortium to respond to an external or internal opportunity.

2. HOW SHOULD THE SOCIAL SCIENCES AND HUMANITIES (SSH) BE ADDRESSED AND EVALUATED IN PROPOSALS?

Under Horizon 2020, Social Sciences and Humanities (SSH) are given an enhanced role as a cross-cutting issue. Horizon 2020 calls are aimed at solving complex societal problems and should therefore fund contributions from SSH disciplines that can tackle these problems. Contributions from SSH may appear alongside other disciplines.

In many topics, the 'scope' section indicates that there should be contribution from SSH. These topics have been 'flagged', and can be found on the Participant Portal (see <u>list of SSH-relevant topics</u>). Proposals under these topics are expected to take into account the social, economic, behavioural, institutional, historical and/or cultural dimensions, as appropriate, of a societal issue.

When evaluating a proposal submitted to such a topic, experts will first refer to the topic description to identify the expected SSH contributions. With this in mind, they will evaluate the contributions from SSH in the proposal, according to the criteria. A successful contribution of SSH, depending on the topic, may require collaboration among various SSH disciplines and/or between SSH and non-SSH disciplines.

Even if proposals do not belong to an SSH-relevant topic, they may contain contributions from the SSH disciplines and should be evaluated as with other relevant aspects of the proposal.

3. How should Responsible Research and Innovation (RRI) be addressed and evaluated in proposals?

RRI implies that societal actors (researchers, citizens, policy makers, business, third sector organisations, etc.) work together during the whole research and innovation process in order to better align both the process and its outcomes with the values, needs and expectations of society. RRI therefore anticipates and assesses potential implications as well as societal concerns and expectations with regard to research and innovation activities, with the aim notably to foster the design of inclusive and sustainable research and innovation.

In practice, under Horizon 2020, RRI is implemented as a package that includes multiactor and public engagement in research and innovation, enabling easier access to scientific results, the take up of gender and ethics in the research and innovation content and process, and formal and informal science education.

When one or other of these aspects are explicitly mentioned in the topic description, or otherwise form part of the proposed work, experts will evaluate the corresponding elements of the proposal against the criteria, as they would with other aspects of the proposal.

Bear in mind that the proposal template indicates that:

Public engagement may be implemented in the proposal under excellence concept and approach - transdiciplinary considerations or in the impact section.
Public engagement may also form part of the communication activities;

- Open access to scientific publications (peer-reviewed scientific research articles) is expected to be taken into account as part of IPR management, where relevant;
- Education and training may form part of the dissemination and exploitation plan;
- Gender aspects are considered in the section excellence concept and approach, see FAQ 5.
- Ethical aspects are considered under a separate process. However, if experts detect any evidence of research misconduct (e.g. plagiarism, falsification of results) when evaluating the proposal, they will inform the Commission/Agency staff).

4. HOW SHOULD PUBLIC ENGAGEMENT BE ADDRESSED AND EVALUATED IN PROPOSALS?

Public engagement implies the establishment of iterative and participatory multi-actor dialogues to foster mutual understanding and co-create research and innovation outcomes and policy agendas. It is about bringing on board researchers, policy makers, industry and civil society organisations and NGO, and citizens, to deliberate on matters of science and technology. PE also creates the space for ethical value-laden issues to be explored, while bringing inclusiveness, transparency, diversity, and creativity into the R&I process.

Public engagement may be embedded in proposals with the aim to:

- Foster co-responsibility amongst multiple actors by raising awareness, mutual learning and science literacy;
- Perform participatory research, where engagement is embedded upstream and throughout the research process for more societally relevant research and innovation outcomes;
- Support the development or implementation of research and innovation policy and/or thematic policies (e.g., environmental, health, and transport, etc.). To ensure impact, such initiatives would need to be timely in order to feed into the most appropriate phase of the policy cycle (e.g. participatory foresight, policy definition, policy impact assessment, policy implementation or policy review), at either global, EU, national to local levels, depending on the needs.
- Promote the take-up of PE within the R&I governance process through actions bringing about institutional change amongst R&I actors.

Where relevant, evaluators should consider whether or not the engagement process is methodologically sound, includes the appropriate expertise and resources to design and implement the engagement process, and likely to lead to a positive and real impact during and after the project.

5. How should the Gender dimension be addressed and evaluated in proposals?

a) Gender dimension in Research and Innovation content

A topic is considered gender relevant when it can be expected that its findings affect women and men or groups of women and men differently.

In these cases, applicants should integrate gender issues and, when relevant specific studies, as part of the proposals. This is what we call the 'gender dimension' in research and innovation content. Addressing the gender dimension will contribute to the scientific quality and societal relevance of the produced knowledge, technology and innovation.

The H2020 proposal template, under 'Concept and approach', includes a standard question for applicants: "Where relevant, describe how sex and/or gender analysis is taken into account in the project's content". Sex and gender refer to biological characteristics and social/cultural factors respectively. For guidance on methods of sex / gender, and the issues to be taken into account, applicants are referred to the Gendered Innovations website¹.

In Horizon 2020, the gender dimension is so far explicitly integrated into more than 100 topics across almost all sections of the 2014-2015 Work Programme. This means that each of these topics specifies under its scope and or/ under its expected impact in what way gender is relevant, in order to ensure a clear understanding by applicants.

> In these cases, experts will check how sex and/or gender analysis is taken into account as requested in the proposal template and consider this while giving a score under the "excellence" and/or the "impact" criteria.

When the gender dimension is not explicitly integrated into a topic, applicants can still decide to address it in their proposal if they find it relevant

➤ In these cases, gender issues become part of the project and experts will deal with them as they would with other relevant aspects of the proposal.

b) Gender balance in research teams

As stated in the introduction of the Work Programme, applicants to Horizon 2020 are encouraged to promote equal opportunities in the implementation of the action and to ensure a balanced participation of women and men at all levels in research and innovation teams and in management structures.

Gender balance also comes into play as a ranking factor to prioritise ex aequo proposals, as set out in <u>Part H</u> of the General Annexes to the work programme: "gender balance among the personnel named in the proposal who will be primarily responsible for carrying out the research and/or innovation activities".

➤ In these cases, the relative gender balance of the consortium, at the time of the proposal submission will be noted, with reference to section 4.1 of the proposal template ("Participants"), where applicants are asked to specify the gender of the persons who will be primarily responsible for carrying out the proposed research and/or innovation activities.

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 $^{^1: \}underline{\text{http://ec.europa.eu/research/science-society/gendered-innovations/index_en.cfm}$

6. How should Trans-disciplinarity be addressed and evaluated in proposals?

The evaluation criterion 'Excellence' refers to "trans-disciplinary considerations, where relevant". This aspect will therefore be evaluated – where relevant – and reflected in the scoring².

In the context of Horizon 2020, trans-disciplinarity refers to approaches and methodologies that integrate as necessary (a) theories, concepts, knowledge, data, and techniques from two or more scientific disciplines, and (b) non-academic and non-formalized knowledge³. In this way, trans-disciplinarity contributes to advancing fundamental understanding or solving complex problems while fostering multi-actor engagement in the research and innovation process.

7. HOW WILL INTERNATIONAL COOPERATION BE ADDRESSED AND EVALUATED IN PROPOSALS?

As a general rule, all actions under Horizon 2020 are open for participation of third countries and international organisations. This is the principle of general opening of Horizon 2020. For some topics in the work programme, however, it has been clearly identified that there is a clear interest and benefit in engaging in cooperation, both for the Union and the partner in question. These topics have therefore been flagged in the work programme as being particularly relevant for international cooperation.

Experts will consider the following aspects in particular:

- In some cases, topics in the work programme encourage international cooperation and state explicitly that 'this will be positively considered during the evaluation of proposals';
- Part A of the General Annexes to the work programme includes the list of countries from which legal entities are automatically eligible for receiving funding from the Horizon 2020 budget. International European organisations are also eligible for funding. Unless otherwise stated in the work programme, legal entities from other countries and international organisations can only be funded in exceptional cases. One of those cases (Article 10.2.a of the Rules for Participation) is where the Commission deems the participation of the entity in question essential for carrying out the action. This exceptionality needs to be justified in the proposal and the Commission will base its decision on the evaluation of the proposal, which therefore needs to include the evaluators' judgment about whether or not the participation of the entity in question in the project is essential, with clear benefits to the consortium. These benefits may include, for example, outstanding competence and expertise, access to unique

Non-formalized knowledge may come from relevant societal actors and stakeholders such as healthcare practitioners, farmers, user groups etc.

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Please note that for stage 1 proposals, unless otherwise specified, it is not compulsory to elaborate on the composition of the consortium. Evaluators must not comment on the composition of consortia.

know-how, access to research infrastructures, access to geographical environments, involving key partners in emerging markets, access to data, etc.

8. How will Communication activities be addressed and evaluated in proposals?

Under Horizon 2020, beneficiaries have a general obligation to "promote the action and its results". The communication activities to be undertaken during the action's lifetime must already be part of the proposal (either as a specific work package for communication or by including them in another work package). They are taken into consideration as part of the evaluation of the criterion 'impact'.

The communication activities must be planned and implemented from the outset (and continue throughout the entire action), with a **comprehensive communication plan** that defines clear objectives (adapted to various relevant target audiences) and sets out a concrete planning for the communication activities (including a description and timing for each activity).

The communication activities must make the research activities known to multiple audiences (in a way that they can be understood by non-specialists) and **address the public policy perspective** of EU research and innovation funding, by considering aspects such as:

- transnational cooperation in a European consortium (i.e. how working together has allowed to achieve more than otherwise possible)
- scientific excellence
- contributing to competitiveness and to solving societal challenges (eg. impact on everyday lives, better use of results and spill-over to policy-makers, industry and the scientific community).

Good communication will:

- Start at the outset of the action and continue throughout its entire lifetime;
- **Be strategically planned** and not just be ad-hoc efforts. This requires careful planning and preparation;
- Identify and set clear communication **objectives** (e.g. have final and intermediate communication aims been specified? What impact is intended? What reaction or change is expected from the target audience?);
- Be targeted and adapted to **audiences** that go **beyond the project's own community** including the media and the public (e.g. is each target audience a relatively homogenous group of people? Can the target audience help the action achieve its objectives?);
- Choose pertinent **messages** (e.g. How does the action's work relate to our everyday lives? Why does the target audience need to know about the action?);

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Grant Agreement Article 38.

- Use the right **medium and means** (e.g. working at the right level local, regional, national, EU-wide?; using the right ways to communicate one-way exchange (website, press release, brochure, etc.) or two-way exchange (exhibition, school visit, internet debate, etc.); where relevant, include measures for public/societal engagement on issues related to the action);
- Be proportionate **to the scale of the action** (e.g. activities carried out by a large-scale action with beneficiaries coming from several different countries and a large budget must be more ambitious than those of a sole participant of a monobeneficiary grant).

An overview of best practices and a check list on how actions can build a communication strategy is available in the <u>H2020 Online Manual</u>.