Horizon Europe Programme

Standard Application Form (HE RIA, IA)

Version 4.0
21 January 2022

This annotated version of the RIA/IA template Part B is intended to support the writing of a project proposal in pillar II (Global Challenges) of Horizon Europe. Part B is the narrative part of the proposal. This is annotated version 2.0 (21/04/2022). We intend to update this version regularly.

This version accompanies the RIA/IA template 2021-2022 and is a product from the National Contact Points (NCPs) for Horizon Europe of the **Netherlands Enterprise Agency (RVO).**

No rights can be derived from the information put forward in this document. Interim changes to the template occur and the templates are not the same for all topics. When submitting your proposal, always use the official template and information from the European Commission. You can find the most up to date template under the submission button of each topic when logging in into the Funding and Tenders Portal.

Do you have questions, suggestions or want more information? Please contact RVO via:
- Phone: 088 042 4210
- E-Mail: teamiris@rvo.nl

On our website you will also find an overview of all the services that the NCPs can offer you.

Reader's guide:

- Our annotations can be found in the blue boxes with the government logo before it.
- **Examples** and **best practices** are indicated in blue.
- **Specific situations** (e.g. applicable for only Innovation Actions) are indicated in orange.

What are the major differences between the Horizon Europe and Horizon 2020 template?

Just like in Horizon 2020, the RIA/IA proposal template for Horizon Europe is split into two parts: Part A and Part B. Part A is based on the information entered by the participants through the submission system in the Funding & Tenders Portal. Part B is the narrative part of the proposal and is the main focus of this Annotated Template.

There are however, a few difference between the template used under Horizon2020 and this new one for Horizon Europe. Major changes are:

- Part A: a section about the individual researchers involved in the project is added to part A.
- Part A: an Ethics self-assessment is added to part A.
- Part A: a Gender Equality Plan (GEP) is asked for, for Public bodies, Higher education establishments and Research organisations. This should be organized by your organisation. For a step-by-step guide for establishing a GEP, please see the Gender Equality in Academia and Research (GEAR) – Tool. The Gender Equality Strategy of the European Commission provides insight into how to achieve gender equality in European research and innovation.
- Part B: The standard maximum length of the B part of a proposal is reduced from 70 to 45 pages. However, in some topics a different maximum length is defined.
- Part B: Excellence: the Ambition paragraph is now part of Objectives and Ambition.
- Part B: in the Impact chapter a Summary paragraph is added; the so called 'Canvas' key elements table is the heart of this paragraph.
- Part B: Implementation: 'management structure, milestones and procedures' paragraph is now part of 3.1 Work plan and resources.
- Part B: Section 4 'Members of the Consortium' and section 5 'Ethics and Security' in the Horizon 2020 RIA/IA template are now merged into part A of the Horizon Europe RIA/IA template.

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 number of pages included in each section of this template is only **indicative**.

The page limit will be applied automatically. **At the end of this document you can see the structure of the actual proposal that you need to submit, please remove all instruction pages that are watermarked.**

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).

Introduction

Horizon Europe is an impact-driven framework programme. It aims at maximising the effects of Research and Innovation investments, ensuring their contribution to the Commission's policy priorities. Funding opportunities in pillar II are based on what Europe needs. A call for proposals usually contains several topics. Each topic describes the specific challenge at hand and what outcomes are expected from the project. Your goal is to deliver project results that contribute to these expected outcomes and provide solutions that help solving the overall challenge (=achieve impacts). The overall challenge for the call is described under the heading Destination. All topics under each destination contribute to reaching the expected impacts necessary to address the overall challenge.

For Innovation Actions (IA) and Research and Innovation Actions (RIA) in pillar II of HE you always need a consortium to solve such a global challenge. A consortium needs to include 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. For more information on eligibility, please see the General Annexes part B.

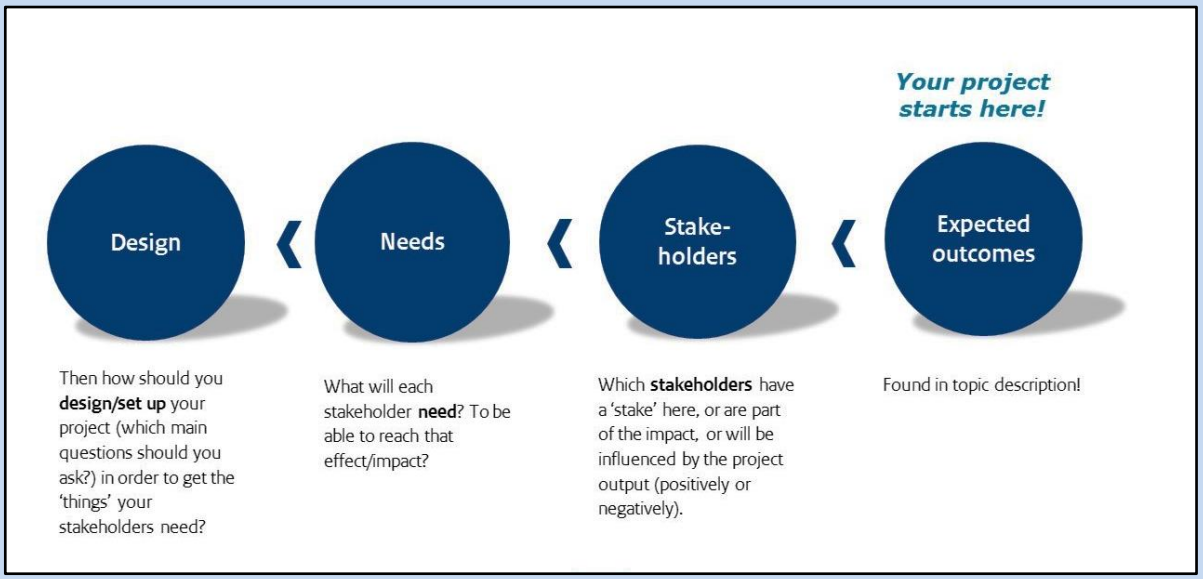
For more information on terminology, structure etc. of Horizon Europe, please see the Horizon Europe Programme Guide.

Before you start writing:

- **Addressing expected outcomes**
  Check in the topic text how many of the expected outcomes each individual project is expected to deliver. Does your proposal answer to all of the required expected outcomes and does it fit well with the scope of the topic? If not, then there is no point in submitting a proposal. Horizon Europe is highly competitive.

- **Start with Impact**
  If you believe that your proposal contributes to the required expected outcomes, the next question is: How do you ensure that this is made clear in your proposal? Provide a coherent, logical and catchy story: Problem =>Your solution => Project Goals => Ambition => Work Packages => Deliverables => Impact. Usually, Impact is the most difficult. So start the writing process from impact.
  - How do you ensure that you achieve the expected outcomes of the topic? And how do you contribute to the expected impacts (described under the Destination)?
  - Which disciplines and which partners are needed for that?
  - How will the results of the project be used?
  - And by whom?
  - How will the stakeholders be involved? If required, how will the project ensure systemic change?

  To design a project with more impact, follow the flow chart below. The first crucial step is to base your proposal on the expected outcomes which can be found in the topic descriptions.



- Form a suitable consortium that will be able to deliver on the expected outcomes. When forming a consortium, look at the composition of the consortium, especially, at gender (of the researchers), geographical distribution and SME participation.

- Using a multidisciplinary approach involving many types of stakeholders usually scores well on both excellence and impact. We strongly advise to incorporate this thoroughly in the proposal.

General tips:

- Keep in mind that the evaluators reading your proposal are experts, but may not be knowledgeable in your specific (sub)discipline. Make sure your proposal is easy to read and can be appreciated by someone who is a little further away from the subject.

- The purpose of a good proposal is to make it as easy as possible for the evaluators to be convinced of the project. Do not simply state something is excellent or complex; convince evaluators of the excellence and complexity through examples, issues and barriers.

- Provide a proposal that is inviting to read:
  - At the start, clarify (without going into too much detail) what the problem is, why it has not been solved yet, what your solution is to the problem, how are you going to make sure that the proposed solution will solve the problem and that the consortium is extremely well fitted to tackling this problem.
  - Make use of figures, images, tables, lists and (sub-) paragraphs to make the story visually attractive. Evaluators appreciate when information is presented in a clear manner. Let figures and tables speak for themselves. Also make sure that everything is readable in greyscale-print.
  - Avoid excessive use of abbreviations. If you do use abbreviations: explain them.
  - A cohesive proposal requires consistency in terminology, numbering and titles. Make sure these are the same throughout the proposal. If they are not, evaluators will have to make an extra effort to understand the proposal properly. Pay attention to the font size (see black box on page 3).

- Your proposal is a convincing exercise, not a scientific paper! Only cite crucial references, e.g. to substantiate important data. Literature references are part of the page limit. Focus on 'need-to-know' information.

- Sometimes the template asks for a 'narrative' (e.g. in section 1.2 and 2.1). Here you should take the evaluator along in a logical storyline. You may use additional infographics and tables if this helps.

- The most common criticisms from evaluators from Horizon Europe:
  - the proposal provides too little specific information;
  - contains too much repetition and;
  - is vague (e.g. lack of appropriate measurements/parameters).

- In addition, evaluators surprisingly often get irritated by numerous 'sloppy mistakes' that are probably the result of rushed last-minute changes.

- Be ambitious, but also realistic. Promises that cannot be delivered within the chosen timeframe, budget or approach erode credibility.

- For more tips and tricks on how to write your proposal, get in touch with RVO (teamiris@rvo.nl). RVO also offers trainings that can help you write proposals with more impact.

Practical tips:

- Do not use (too) long sentences. For good readability, 25-30 words in a sentence is the maximum. It is better to have two short sentences than one long one.

- Avoid language and grammar errors.

- DO NOT EXCEED the page limit of 45 (unless stated otherwise in the topic text); Excess pages will be automatically made invisible, and will not be taken into consideration by the evaluators. The page limit is a limit, not a goal.

- Do not change the structure or order of the template proposal.

- Answer to all the points that are requested in the template proposal.

- It is possible to emphasize important messages in bold, but don't overdo it.

- Do not wait until the final moment to submit. It is highly recommended to submit your proposals as early as possible and at least 48 hours before the deadline. This will avoid technical problems (system requirements, local configuration settings, system congestion, etc.). Note that you can submit the proposal as many times as you want. Every submitted version will replace the previous one.

- The European Commission discourages applicants to include Letters of Support.

Evaluation criteria

- There are three assessment criteria: I) Excellence, II) Impact and III) Quality & Efficiency of the Implementation. A link to the evaluation form that will be used by evaluators can be found here. The scoring threshold for the three assessment criteria is as follows (unless indicated otherwise):

Criteria	**Threshold**
Excellence	3/5
Impact	3/5
Quality & Efficiency of the Implementation	3/5
TOTAL	10/15

For a Research and Innovation Action, all criteria are weighted equally. Note that for Innovation Actions, the impact section is weighted 1.5 in the evaluation. Proposals that pass the individual threshold **and** the overall threshold will be considered for funding, within the limits of the available topic budget. Other proposals will be rejected.

- If project proposals are evaluated with identical total scores, the evaluators will then order them according to the so called **priority order**. For more information on the criteria used in the priority order, please see Annex F of the General Annexes.

DEFINITIONS	
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.
Deliverable	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).
Impacts	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.*
Milestone	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 ofa milestone should be verifiable.
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 amongstakeholders on specific issues. The nature of the objectives will depend on the type of action, and the scope of the topic.
Outcomes	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.*
Pathway to impact	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.
Research output	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.

Results	What is generated during the project implementation. This may include, for example, know-how, innovative solutions, algorithms, proof of feasibility, new business models, policy recommendations, guidelines, prototypes, demonstrators, databases and datasets, trained researchers, new infrastructures, networks, etc. Most project results (inventions, scientific works, etc.) are 'Intellectual Property', which may, if appropriate, be protected by formal 'Intellectual Property Rights'. Example: *Successful large-scale demonstrator: trial with 3 airports of an advanced forecasting system for proactive airport passenger flow management.*
Technology Readiness Level	See Work Programme General Annexes B

⚠ *Fill in the title of your proposal below.*

TITLE OF THE PROPOSAL

The title of the proposal is one of the first things an evaluator will see. Make sure you have a **catchy title** that is easy to remember and relates to the topic of the project. The same goes for the acronym of the proposal.

To avoid confusion later, check if there is already a project with the chosen acronym through the Cordis project database.

⚠ *The consortium members are listed in part A of the proposal (application forms). A summary list should also be provided in the table below.*

List of participants *[e.g. 1 page]*

Participant No. *	**Participant organisation name**	**Country**
1 (Coordinator)		
2		
3		

* Please use the same participant numbering and name as that used in the administrative proposal forms.

The List of Participants contains the participating organisations (not individuals). Even though it is not mandatory, it may be useful to add **a fourth column** with the type of organisation **(e.g. Public Bodies (PUB), Research Organisations (REC), Private for Profit entities (PRC), Higher or Secondary Education Establishments (HES), Other (OTH)).** The evaluator then has a quick idea of the composition of the consortium.

When forming a consortium, look at the composition of the consortium, especially**,** at **gender** (of the researchers), **geographical distribution** and **SME participation**.

It is important to build a consortium with **necessary expertise and competences** that will be relevant to address and achieve the expected outcomes. Every partner should have a specific role in the project. Do not (exclusively) build a consortium with befriended and trusted partners you have always worked with. An application should not come across as 'business as usual'. An evaluator can often tell from the consortium whether the project will create impact. Are there organisations in the consortium that will continue the uptake of project results after it ends?

A Horizon Europe project is about European cooperation and European impact and beyond. Make sure the consortium represents Europe. A project with four Dutch, one Belgian and one German partner puts the emphasis very much on one region. Make sure that a disproportionate share of the budget does not go to one country. There are no hard conditions for the distribution across the countries, but the rule of thumb is: no more than 40% of the budget goes to organisations from one country.

The **geographical distribution** of the consortium can also be important. The importance of it is usually stated in the topic description. However, it is recommended only to include a partner in the consortium if it can make an essential contribution to the project. Ultimately, it is about all partners having a valuable role in the project. The geographical distribution can strengthen the impact. Are the results applicable and/or relevant to the whole of the EU? Then it makes sense to include expertise from different parts of the EU.

The expertise of the coordinator should fit the nature and size of the project and consortium. A large project with many partners requires a coordinator who has experience in complex international (research) projects.

Is the topic you are applying for a **'flagged topic'** for one of the 'cross-cutting priorities'? Check for this heading at the end of the topic description. If so, take extra care to have the right participants on board. This is especially true for substantive cross-cutting priorities such as Social Sciences and Humanities (SSH). Many topics invite contributions from the SSH. These 'flagged' topics can be found on the Funding & Tenders Portal. More information on SSH flagged topics can be found in the Programme Guide.

In a Horizon Europe project you will need to work closely together. Make sure that this runs smoothly. This prevents a lot of problems. Not only during the writing of the proposal, but especially during the execution of the project. **Invest time in setting up a proper project development structure.** This can help convince the evaluator that you are a team that can work together and will deliver the results timely. It can be useful to install one person in charge for Impact and one for Excellence, especially if the coordinator has a strong focus on one of these criteria.

Upon submission, all participants need a **PIC code**. This Participant Identification Code can be requested via the Participant Portal. If your project is granted funding, the organisation (PIC) must be validated and a Legal Entity Appointed Representative (LEAR) must be appointed. Both (PIC and LEAR) are needed to sign the legal documents (Grant Agreement). We recommend to already start the procedure of LEAR at the time of submission. Check the register, to see if your organisation is already known to the European Commission.

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.*

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.

The **first impression** counts. Make sure the evaluator gets excited when reading the first pages. Describe the problem this proposal will address (= the need) and why this particular proposal is important now (= the urgency). What is the current state of affairs and how will this project improve or further expand on what is already known?

Who are the stakeholders affected by the challenges specified in the topic description? Why is this proposal the winning solution/contribution (and the winning team) to solve that specific challenge? What are the unique selling points? Think of this part as an elevator pitch. The intention is to give the evaluator a good idea of the project and an incentive to read further.

This can be in the form of a summary or a brief introduction. The format does not require this, but it is wise to include it (and combine it with our tip to include a figure). If the evaluator is not well-disposed and curious after reading the first two pages, the chances are that the evaluator will be looking for reasons to reject the proposal.

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?

The objectives should be consistent with the topic description in the work programme. Make sure that the objectives cover the expected outcomes (completely). Note that some topic descriptions do not require you to address all expected outcomes. Even then it is often an advantage to address rather more than less of them. Objectives should be formulated in a SMART manner.

- **Specific** > What are the objectives to be reached? What are you going to achieve? Use action words.
- **Measurable** > Does the objective lead to a concrete end result (a model, a theory, a technology…)? Is it clear when the objective will be achieved? Provide a way to evaluate.
- **Acceptable** > Does the objective effect a change? Why is this important? Also A for Achievable: does the objective fit in the scope of the topic and is it possible to accomplish.
- **Realistic** > Is the objective achievable in the allocated timeframe? Also R for Relevant: does the objective make sense in the frame of expertise in the consortium.

- **Time-bound** > State when you'll get the objective done and what intermediate steps are needed to do this (in time)?

Example

✕ "Investigate electrical conduction."

✔ "Model conductivity of electricity in silicon at 300 Kelvin."

✕ "Learning more about unemployment."

✔ "How do people who have been unemployed for more than two years' experience the job opportunities offered by government agencies?"

A project typically has one overarching objective ("overall aim") and 3-5 more specific objectives. Do not confuse project objectives and project activities. A table or graph visualizing the project objective can help. Make this graph before you start writing everything out.

- 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.

Here it is important to express what **novelty** the project will bring. The proposal is **not** a review article where you explain what has already been done. Describe the current situation, not only from the scientific perspective, but also in terms of innovative technologies and models. Make clear what steps this project will take in order to bring current knowledge further and address real-world problems. Do not come up with a long list. Emphasize where the project really will make the difference. Refer to current initiatives (e.g. EU projects) and quantify impacts where possible.

The emphasis of this section varies per project type:

- **Research & Innovation Action: new scientific insights, new technological possibilities, proof that a technique or approach works for a particular application or sector, etc.**
- **Innovation Action: first adoption/application or large-scale demonstration of an innovation or systemic transformation. Innovation for existing products in the market, etc.**

Show what the potential of the projects results could be. So not just beyond state-of-the-art, but **beyond the end of the project**. What opportunities are there beyond the end of the project?

To structure this, you could use the following table:

Aspect	State-of-the-art	Projects' ambition	Patent search
Aspect 1	Current situation 1	Ambition 1	[Here you can indicate whether you use certain patents - showcasing that you have the Freedom to Operate.]
Aspect 2	Current situation 2	Ambition 2	
Aspect n	Current situation n	Ambition n	

- 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.*

Indicate where your project starts and ends and substantiate this. Use 'Technology Readiness Levels' (TRL) for this purpose, for example TRL5 => TRL7 (see the General Annexes for the definition on the different TRLs). You don't have to indicate the start/end TRL level for the entire project. You can also specify this for separate technologies when relevant.

You could link levels of TRL to the previous ambition section. The current state of art is the current TRL and the beyond state of art is the TRL level at the end of the project.

Take into account whether the project is a Research and Innovation Action (RIA) or an Innovation Action (IA). **RIAs are usually expected to achieve a TRL of approx. 5 by the end of the project. For IAs the range is usually between 6-8.** Some topics explicitly state where the project should start and end in terms of TRLs.

For some topics (such as social sciences), the TRL classification is not suitable. **In that case use other wording, for example in terms of a policy cycle and/or Societal Readiness Levels (SRLs).**

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

In this paragraph, the project idea must become clear: **what is your 'solution'** to the problem stated in the topic?

Outline the background and approach: **why is this particular approach needed to achieve impact?** Provide sufficient information and use figures, tables and formulas in addition to text to visualize your methodology and concepts.

- 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'.*

  - ⚠ *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.*

Be as **specific** as possible about the methods, techniques, approaches, theories that you will use during the project. This shows that your project will be feasible. It also makes it easier to be more specific in the work plan later in the proposal (3.1). If you are concrete and specific, it builds confidence with the evaluators.

Consider using a **visual** of your main concept, summarizing the novel methods, techniques and approaches.

Distinguish between the methodology, which should be described here, and the concrete work plan in 3,1. In this section is about the conceptual approach. **What is the research question** and with **what methods/techniques** are you going to approach it? Why did you choose this method? This section is specifically **not** a 'materials and methods' paragraph, as found in a scientific article.

With regards to the concepts, models and assumption it is important to state **what the solution is of the project.** Does the project provide a solution for a particular end user (the consumer, patient, professional, etc.)? For certain policies? For different disciplines? Who is asking for the outcomes and/or who is going to benefit from your solution(s)? Who is the target group?

Example:

- You can describe end-user scenarios (or use cases) to clarify the added value for the end-user. For example, "a day in the life of...".

- Outline a policy cycle indicating the times when your outcomes are expected to have an impact.
- Show the current production cycle of a particular product. In doing so, also show how your innovation will change this production cycle (e.g. fewer steps, more efficient, less costly) and/or improve the product.

- 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]*

The evaluators like to see an overview of (inter)national projects related to your proposed project. Don't only show that you aware of these projects, but also **explain how your project builds on the results of these projects.** To find relevant past and ongoing projects is to make use of the website 'CORDIS' of the European Commission. Here European research and innovation projects can be found.

Relevant projects from other research programs (national and international) are also useful to mention here. In addition, indicate which partners are or have been involved in these projects. This will show that you will be able to efficiently build on the knowledge from these projects. Refer to your ambition section where you have stated how this proposed project goes a substantial step further in what is already known/done.

- 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]*

For topics where the SSH is needed, you should **ensure that contributions from SSH disciplines are integrated throughout the proposed project**. SSH disciplines could for example be sociology, economics, psychology, political science, history, cultural sciences or/and the arts. This means involving these experts **from the start** and to give them a significant role in the project and consortium. The required actions, participants and disciplines involved as well as the added value of SSH contributions need to be clearly stated in the proposal. It is recommended to dedicate a specific task within the work plan on the SSH discipline. A proposal with sufficient contribution/integration of SSH research and competences will receive a higher evaluation score. Moreover, integrating SSH disciplines will also increase the likelihood that your project will deliver more impact. For more information on integrating the SSH discipline into the project and a list of relevant SSH disciplines, please see page 20 of the Programme Guide.

If you consider that SSH is not relevant for the project, **provide a solid argumentation why this is the case.**

Linked to the SSH discipline is **social innovation**, which is a frequently used and important term within Horizon Europe. Social innovation helps answering societal and environmental challenges, connecting society with innovation. For certain (flagged) topics it is encouraged to consider social innovation as a way to meet the topic's objectives. For more information on the definition of social innovation by the European Commission and its usages, please the page 21 of the Programme Guide.

- 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 content.*

  - ⚠ *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.*

  - ⚠ *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* https://ec.europa.eu/info/news/gendered-innovations-2-2020-nov-24_en

If you are doing research that involves individuals (for example, as subjects, as end-users, or as sources of knowledge), you should explain how you explicitly take **gender dimensions** into account in the project. For example, results of the research could be different for women than for men? Or it is known (or not) that men react differently within a certain context or culture? Will this influence the results of the project? How will the project deal with this?

If gender does not play a role, indicate this in a concise and substantiated way.

'Gender dimension' means integrating sex and gender analysis into research. In addition to the gender dimension, the **gender balance** can also play a role in research. What is the male/female ratio of the participating subjects, what gender are the people you are interviewing? This is not always necessarily about it being 50/50 (sometimes it is, e.g. in a clinical study), but explain how you deal with gender balance and how you think you can achieve a balanced participation of both men and women in the project. For more info on sex and gender analysis methods, see here. Also on page 16 in the Programme Guide attention is given to the gender dimensions in research.

This section is not about gender balance within the consortium. In Participants Section of part A of the proposal you specify who has what gender (and what role in the project).

- 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.

  - ⚠ *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, 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).*

  - ⚠ *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'.

- 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.

  ⚠ *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.*

The template for the data management plan can be found here. In contrast to Horizon 2020, within Horizon Europe the data management plan is mandatory. Within the proposal the outline of the plan should be provided, followed by a full data management plan as one of the first deliverables.

⚠ *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 Portal.*

2. Impact

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.

The expected outcomes are the changes your project will bring about during or shortly after the end of the project (see also the definitions list in the application template). Your proposal should explain **what** you will do and **how** your project will achieve this (to 'pave the way').

Impact is about the phase after the project ends:

a) how does each partner in the consortium benefit
b) how do the end users / target group benefit
c) how will Europe benefit and
d) how will the world/society benefit?

Expected impacts are described in the Destination under which a topic resides.

This is where you can make a difference! Many project proposals fail on this criterion, simply because people start thinking about impact too late. A solid impact section requires more than a sharp text. The projects design, consortium and activities should be geared towards achieving the Expected Outcomes elaborated in the topic description and to the wider expected impacts set out in the 'Destination'.

We highly recommend that you set up your entire project proposal based on 'Impact'. If you know how you want to achieve the Expected Outcomes, it helps you to:
- see which partners you need in the consortium to achieve this impact.
- choose a project approach that will lead to the requested impact.
- write a proposal that is convincing by showing that your solution will benefit the whole of the European Union.

After reading this chapter evaluators should be convinced that the project results will be used in practice and will bring major (and realistic) positive change.

For tips on writing your project proposal from 'Impact', see the General Tips of this annotated template (page 4).

As mentioned earlier for Innovation Actions, impact is the most important evaluation criterion, and has a weighting factor of 1.5 relative to the other evaluation criteria.

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 CO_2 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.

Substantiate and quantify how this project contributes to the various expected outcomes listed under the topic descriptions. Place most emphasis on these.

Also read through the wider impact goals of the respective destination and the cluster work programme. How can this project contribute to these overarching goals? These wider impacts can be found in the **introduction chapter** of each destination and cluster work programme. Sometimes they refer to European policies and strategy papers you should also take into account then. In addition, **general benefits to Europe** from this project can be indicated; how can the project results contribute to strengthening the economy/business growth, a better environment, etc.

Make clear how the project results (deliverables) will lead to impact (over time, after the project ends).
Some writing tips:

- Results ≠ impact: avoid repeating your results here.
- It could be useful to include Key Performance Indicators (KPIs) to allow evaluation and monitoring of achievements of set objectives for each activity.
- Describe the timeline. Ask yourself the question: to achieve a certain outcome, what steps need to be taken to achieve it?
- Who will make use of the projects results (i.e. the target group), why (what do they want) and how?

Describe per target group how your results will affect them in the long term. Always quantify impact where possible.

- Substantiate with market studies, policy documents, European innovation agendas, etc. Useful links:
  - European Commission's priority strategies These are the 6 Commission priorities for 2019-2024.
  - UN Sustainable Development Goals.
  - Paris Climate Agreement.

In the topic and destination descriptions reference is usually made to several, more specific (European) policies and innovation agenda's (look in the footnote for these).

(b) 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.*

You could opt to visualize this in the form of a table. **For example,**

What is the contribution?	**Which expected outcome does it contribute to?**	**Who benefits from the contribution?**
Contribution 1	Expected outcome 1	Benefits 1
Contribution 2	Expected outcome 2	Benefits 2
Contribution n	Expected outcome n	Benefits n

Makes sure you quantify contributions as much as possible. Use tangible impact indicators, **e.g. jobs created, deaths prevented, CO_2 (equivalent) emissions reduced, energy saved etc.** Explain assumptions that you make to come to these quantifications.

(c) 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'.*

Elaborate what external factors could affect achieving the specific outcomes. Specify how the project aims to deal with these potential barriers. For example:

Barrier > **'a lack of standardisation, user acceptance or certain legislation may be prohibitive, …'**

How the project will deal with it > **'clearly communicating the problem to relevant bodies that can offer a solution, organising workshops for more acceptance, etc. Also ensuring that the relevant bodies also participate in the consortium if they play a significant role in the final outcome of the project'.**

You could opt to visualise the above in a table. The first column describing the barrier and the second column describing how the project will deal with it.

2.2 Measures to maximise impact - Dissemination, exploitation and communication *[e.g. 5 pages, including section 2.3]*

This section discusses dissemination, communication, and exploitation. Dissemination and communication are very similar. The distinction between the two mainly is in the target group. Dissemination is spreading knowledge to peers, while communication is aimed at the general public (the EU citizens). Further explanation on this is given by the European Commission in this infographic.

Looking at the outcomes that you want to achieve (i.e. the previous section 2.1), what do you need to ensure to make that happen?

- 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.*

The dissemination part deals with how the **project results** will be disseminated **during the lifetime of the project**. Dissemination can be aimed at researchers from your own field, or at researchers from other fields. It can also be aimed at (societal) organisations who may have an interest in your research. Don't solely think about the usual scientific articles, but think more broadly than that. How will stakeholders be involved? Will the results be presented at conferences, through social media or on a website? Are other organisations involved in your project activities? Will the results be used in other projects or policies? How will you make visible what you are doing? In short: **what** do you want to communicate to **whom**, **how** will you do it and what will the **result** be? Each stakeholder will need to be approached in a different way (e.g. in a potential different language).

Example
Draw up a mini-communication plan with clear objectives (specified according to specific target groups). Indicate clearly who the target groups are and which communication tools and activities will be used to reach out to these groups and how often. Make it as concrete as possible.
Describe the impact of these activities, that is what this paragraph is about after all. What can the target group do with the (research) results? How does your approach connect with the various stakeholders? Make sure the activities are described in a concrete and realistic manner.

Tips on possible means of communication can be found here (from Horizon 2020, but still relevant).

Dissemination is, in general, stronger when many project partners are involved. Each partner has his own network and his own contacts with stakeholders who will work and use the project results.

Furthermore it is important for the European Commission that knowledge and products are developed that will be used in practice. In this context, it is advisable to involve a (small) group of end users from the start, for example via an advisory board, workshops or as a partner in the project. The involvement of stakeholders who will use the knowledge that is developed is often very strong. These end users will use the results of the project and can form a bridge to other users. The approach of Responsible Research and Innovation (RRI) could help to e.g. get a good overview of all required stakeholders. You could use the RRI Toolkit: to be found here.

If some of the deliverables are not 'public' and also not applied in some other way, this can lead to questions about the impact of the dissemination. Please explain this well.

The **exploitation** part describes how the project partners will (commercially) use the project results. Exploitation can also take place outside the consortium, **for example: software that is offered 'open source'.** Describe the overall exploitation strategy and how individual partners will exploit the results.

- **Innovation Actions, which are often close to the market/practice, are expected to provide more details here, for example based on an existing business plan.**
- **In case of new equipment (especially in an Innovation Action) an outlook can also be given on how user training and maintenance are foreseen.**
- **Other common 'measures' are for example (pre-) standardisation in ICT-related projects; and interaction with policy makers in the case of social challenges.**

⚠ *Communication[1] 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.*

This section is about the communication activities - primarily aiming at involving the **general non-scientific public**. At different stages during the project it is interesting to communicate about the project. Again, consider which message is important to whom. In other words: what is your message and who is the target group? Describe in concrete terms a number of communication moments and activities, always clearly indicating: **what** is the message, **who** is the target group, **how** (with which communication tools and language) are you going to reach them, what will be the **impact**? Again, be specific.

Think about the so called **'public engagement strategy'**. Engaging the general public can be done in various ways, **for example: presenting something at high schools, talking to patient groups, distributing a press release, creating a Wikipedia page, submitting news articles and radio or television appearances, demonstration activities during science days, using social media, record a podcast series with relevant stakeholders etc.**

Please note the difference between internal and external communication activities. **Internal: how will the internal communication take place (between the consortium partners) (implementation). Externally: communication from key actors (essential for the innovation) and to target groups (who you generally want to reach) (to create impact).**

⚠ *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.*

- 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.*

Discuss how the project deals with open access, privacy and Intellectual Property Rights (IPR).

Providing **open access** to peer-reviewed publications is mandatory in Horizon Europe, when peer-reviewed publications are produced. Open access to generated research data is required under the premise 'as open as possible, as closed as necessary'. Do not forget to budget the associated costs.

Intellectual Property Rights (IPR). How do the partners deal with existing knowledge/IPR (such as patents)? And how will the project results be protected in the future? A single paragraph (half a page maximum) is usually sufficient. Tips:

- What intellectual property is there and from whom? Show that you are going to document this in a consortium agreement. The consortium agreement is not part of the project proposal.

- Is there freedom to operate? In other words: are there no other patents that are disrupting the innovation? Refer to section 1.1, if the suggested 'beyond the of project' table is included.

- And further: a) What can/will you bring out into the public b) If intellectual property is generated, how will you protect and exploit it (licenses,...?) c) How will you protect the knowledge within the project and distribute it among the partners (freedom to operate). You could consider to appoint a dedicated IPR manager (or company) within the consortium.

[1] For further guidance on communicating EU research and innovation for project participants, please refer to the Online Manual on the Funding & Tenders Portal

2.3 Summary

In this section you need to 'summarize' what you wrote in sections 2.1 and 2.2. You need to show how the research results will reach specific target groups and how your project results will contribute towards the expected outcomes and expected impacts which can be found in the work programme. The summary should provide **clarity of vision and substance** to the proposal. Two examples are given by the European Commission in the canvas below to help you along the way.

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? 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.	What do you expect to generate by the end of the project? Example 1 **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.**	What dissemination, exploitation and communication measures will you apply to the results? 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? Example 1 **9 European airports**: Schiphol, Brussels airport, etc. **The European Union aviation safety agency.** **Air passengers (indirect).** Example 2 **End-users**: consumers of electronic devices. **Major electronic companies**: Samsung, Apple, etc. **Scientific community** (field of transparent electronics).	*What change do you expect to see after successful dissemination and exploitation of project results to the target group(s)?* Example 1 **Up-take by airports:** 9 European airports adopt the advanced forecasting system demonstrated during the project. 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.	*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 **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 **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).

3. Quality and efficiency of the implementation

Quality and efficiency of the implementation – aspects to be taken into account

- *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.*

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).
- 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);

In this chapter, the main question is: how will you implement everything you have proposed above? The focus here is on the quality and effectiveness of the work plan that you will set out. For this, a Horizon Europe project is divided into several work packages (WPs).

Please include:
- An explanation of why this division of WPs was chosen and how the WPs are related (PERT*).
- An overview of the WPs and explain how the WPs relate to each other. The number of WPs should be proportional to the size of the project. A typical project has 6-8 WPs that are balanced in size (budget and person-months). **For example: WP1. Management, WP2 - WPx 'content work packages' and a WP for Dissemination, Exploitation and Communication.**
- Timeline of WPs: Use a Gantt chart to indicate chronologically what you will do when, for each WP and task within each WP.
- Collaboration within WPs: A WP has objectives, tasks and deliverables. To achieve an objective a task is defined, the deliverable is the way to show how a task will be completed.

Make sure that the results of each WP are well inter-related with, or feed into, other parts of the proposal. A clear elaboration of the tasks and WPs makes life considerably easier during project execution!

Although the template does not ask for information about the management and organisation of the project, we advise to describe the **project organisation** and **how decisions are made**. Visualise the project organisation (or governance) in an organisational chart. The organisation and decision-making should be appropriate for the project size.

*PERT stands for Program Evaluation and Review Technique. This is a method to quickly understand the consistency of WPs. It is tempting to make everything interrelated, but the key is to depict the main flow of work so that an evaluator can quickly understand which main activities are being carried out.

- *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.*

An exploitation plan should as far as possible indicate per party what they will do with the results. A company can for example indicate how it will incorporate the results into future products or services, knowledge institutions can indicate how it contributes to future research or education.

- *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.*

- 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).

Here describe risks (technical, economic, logistical,...) that are real and have a relation to **the project**, and therefore manageable for the project partners. Also describe how you will deal with the risks - what is the plan if things go wrong? Don't name generalities such as 'a partner can go bankrupt'.

- 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);
- if applicable, a table showing in-kind contributions from third parties (table 3.1j)

Pay sufficient attention to the (financial) resources! Make sure you have a well worked out budget, so that no disagreements can arise during the project. Consult your financial department in time. Do not lose (half) points due to sloppiness.

A budget can be drawn up 'bottom up' or 'top down':
- Bottom up: Each partner specifies how many person months they need to carry out a task. Combined with the rates, this provides the budget per partner. This seems the most 'pure' method, but in practice it often leads to overestimating the hours needed for the various tasks.
- Top down: Given an available budget in the call and an estimate of the total project size, the partners make a prior allocation of the budget in proportion to the expected share in the project. This is then further developed into the person month per task and work package. Vocal partners will usually benefit more from this, and there is also the risk that the budget per partner will not be a true reflection of the tasks in the project.

In practice, a combination of both approaches will often be used. Provide explanations for special costs ((depreciation costs of) expensive equipment, high travel costs, etc.): why is this expense necessary, and how did you calculate the amount?

The 'Annotated Model Grant Agreement' – downloadable here from the Participant Portal - shows in detail how costs can be calculated in a Horizon Europe project.

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

⚠ *The individual participants 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. Include in the description affiliated entities and associated partners, if any.

Ensure that all competencies are present within the consortium, and that all partners add value. If two partners can do almost the same thing, then this does not add much to the consortium. Make this clear in a table, **for example**:

Partner	Competence 1	Competence 2	Competence n
Partner 1	X		
Partner 2			X
Partner n	X	X	

Other options to visualize:
- To accentuate the European cooperation you can display the partners on the map of Europe.
- Emphasize cooperation in the value chain with a picture of the 'value chain' where all partners clearly have position.

Every partner that contributes to the core activities of the project should in principle become a member of the consortium. If there is overlap between activities/knowledge/ etc. of certain partners, indicate how each partner is unique or how mutual agreements are made regarding Intellectual property, **for example in the consortium agreement.** If possible refer back to the R for relevance in your SMART objectives. Link expertise and activities along the same lines.

The decision to include a subcontractor in a project proposal should always be carefully considered. Subcontracting is subject to prior review by evaluators and the European Commission. Not every role in a project fits within subcontracting. **For example, parties who play a substantial role in the project, or parties who themselves are interested in (and have a stake in) the results of the project will need to become consortium partners and should not be subcontractors. If the above is not the case and it only concerns a party that for example has a certain expertise that the consortium does not have, then subcontracting is permitted.** Typical tasks that you can 'subcontract' are tests performed by an external test location, analysis in an external lab, outsourced surveys, developing software and building a previously specified component for a prototype.

A common question is whether it is wise to include a partner from the EU-13 in the consortium. The EC's objective is to encourage participation of parties from EU-13. From an impact point of view, it is advisable to include countries in the whole of Europe. What counts is the **quality of the consortium**: are all partners needed for an effective and efficient implementation of the project activities? Will the consortium be able to achieve the expected impact? For communication and dissemination of results it makes sense to include partners from all over Europe.

- 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.

Participants requesting EU funding based in a country that is not automatically eligible for funding are instructed by the template to explain why the participation of the entity in question is essential to successfully carry out the project. But even when such an explanation is included, only in exceptional cases funding to such entities will be approved. Keeping in mind this low approval chance, it is better to explore alternative funding opportunities for these participants. National funding programmes may be an outcome here, and this international cooperation page provides information per country.

Tables for section 3.1

⚠ *Use plain text for the tables in section 3.1. If the proposal is invited to start Grant Agreement preparation, these tables will have to be encoded in the grant management IT tool, where no graphics or special formats are supported.*

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

A person month (PM) = 1 month of full-time work on the project by 1 employee = x number of work hours. How many hours a person works in a month varies per organisation.
Make sure the collaboration within the work packages (WPs) is visible by distributing the PMs evenly among different organisations. Tip: Use the same order of partners for each WP, this keeps it clear.

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
What are the objectives of this particular work package?

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).
Divide the work into tasks, each with a task leader and duration, **for example**: **- Task 1.1: overall management of the project and consortium, M1-M24 (coordinator)** **Notes....** **- Task 1.2: internal communication, M1-M24 (taskleaders + contributors)** **Notes....** **- Task 1.n ....**

Table 3.1c: List of Deliverables[2]

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

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

Provide a list of deliverables. **What** will be delivered (result of the work package), the result should be **tangible** **e.g. a report, product, website, software**,... Also provide **when** it will be delivered. Number the deliverables and indicate which partner will be responsible.

Do not define too many deliverables (typically 3-6), but at least 1 deliverable per task. These deliverables will be checked by the Project Officer in Brussels during the execution of the project and thus add to your workload for your reporting duties.

KEY
Deliverable numbers in order of delivery dates. Please use the numbering convention <WP number>.<number of deliverable within that WP>.
For example, deliverable 4.2 would be the second deliverable from work package 4.

Type:
Use one of the following codes:

R: Document, report (excluding the periodic and final reports)
DEM: Demonstrator, pilot, prototype, plan designs
DEC: Websites, patents filing, press & media actions, videos, etc.
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:
Use one of the following codes:

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

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

Think carefully about the **month of delivery**. It can be useful to deliver a number of deliverables at the same time (e.g. around a report to the European Commission), or to spread them out because of work pressure.

Also think carefully about the "**dissemination level**" column of the deliverables and make sure they are consistent with the communication and dissemination plan. **For example: if you promise a lot of openness and indicate in this table that it is "confidential", then that does not sound logical.**

[2] You must include a data management plan (DMP) and a 'plan for dissemination and exploitation including communication activities as distinct deliverables within the first 6 months of the project. The DMP will evolve during the lifetime of the project in order to present the status of the project's reflections on data management. A template for such a plan is available in the Online Manual on the Funding & Tenders Portal.

Table 3.1d: List of milestones

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

A milestone marks an important step in the project (after achieving a milestone you can continue with the next step or not). Link the 'means of verification' to a deliverable (Dx.y) where possible.

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

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

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

Research and innovation are inherently risky. Show that you are aware of the risks in implementing the project. List the most important ones. **Examples are:**

- Risk1. Material X may not meet requirements. WP4. Alternatively we can switch to material Y.
- Risk2. Delay in demonstrator availability. WP7. To minimise delays, project planning tools will be used for strict planning.

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.

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				

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		

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		

Table 3.1i: 'Other costs categories' items (e.g. internally invoiced goods and services)

Please complete the table below for each participants that would like to declare costs under other costs categories (e.g. internally invoiced goods and services), irrespective of the percentage of personnel costs.

Participant Number/Short Name		
	Cost (€)	**Justification**
Internally invoiced goods and services		
…		

Table 3.1j: 'In-kind contributions' provided by third parties

Please complete the table below for each participants that will make use of in-kind contributions (non-financial resources made available free of charge by third parties). In kind contributions provided by third parties free of charge are declared by the participants as eligible direct costs in the corresponding cost category (e.g. personnel costs or purchase costs for equipment).

Participant Number/Short Name			
Third party name	**Category**	**Cost (€)**	**Justification**
	Select between Seconded personnel Travel and subsistence Equipment Other goods, works and services Internally invoiced goods and services		

ANNEXES TO PROPOSAL PART B

Some calls may ask to upload annexes to proposal part B. The annexes must be uploaded as separate documents in the submission system. The most common annexes to be uploaded in Horizon Europe are (standard templates are published in the Funding & Tenders portal):

- **CLINICAL TRIALS:** Annex with information on clinical trials
- **FINANCIAL SUPPORT TO THIRD PARTIES:** Annex with information on financial support to third parties.
- **CALLS FLAGGED AS SECURITY SENSITIVE:** Annex with information on security aspects.
- **ETHICS:** ethics self-assessment should be included in proposal part A. However, in calls where several serious ethics issues are expected, the character limited in this section of proposal part A may not be sufficient for participants to give all necessary information. In those cases, participants may include additional information in an annex to proposal part B.