# Doctoral Networks Handbook Call 2025

NETWORK OF THE NATIONAL CONTACT POINTS FOR THE MARIE SKŁODOWSKA-CURIE ACTIONS

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| Task 3.1 | Handbooks and Submission Guides |
| Issued by: | DLR (DE) |
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## Abbreviations

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| MSCA | Marie Skłodowska – Curie Actions |
| HE | Horizon Europe |
| EC | European Commission |
| REA | European Research Executive Agency |
| NCP | National Contact Point |
| PIC | Participant Identification Code |
| FAQ | Frequently asked questions |
| GfA | Guide for Applicants |
| MS | Member States |
| AC | Countries associated to Horizon Europe |
| DN | Doctoral Networks |
| JD | Joint Doctorates |
| ID | Industrial Doctorates |
| GA | Grant Agreement |
| CA | Consortium Agreement |
| PA | Partnership Agreement |

## Disclaimer

This Handbook is an UNOFFICIAL document prepared by RADIANCE, the EU-funded project of National Contact Points (NCP) for the Marie Skłodowska-Curie Actions (MSCA). It is the continuation of the MSCA Handbooks prepared within the MSCA-NET project by the Croatian Agency for Mobility and EU Programmes.

The information contained in this document is intended to assist and support, unofficially and practically, anyone submitting a proposal to the MSCA Doctoral Network Call with the deadline of 25 November 2025. This document is not, by any means, a substitute for official documents published by the European Commission, which in all cases must be considered binding. As such, this document is to be used in addition to the official call documents: *MSCA Work Programme 2023-2025*, *Guide for Applicants for Doctoral Networks 2025*, and official FAQs prepared by the European Research Executive Agency (REA).

This document may not be considered in any way as deriving from and/or representing the views and policies of the European Commission and the REA. Likewise, it may not be considered as a document deriving from and/or representing the views and policies of the entities that are beneficiaries of the RADIANCE project.

For the purpose of the Handbook, Version 5.0 of the MSCA DN Proposal template is used (published on April 29th 2025). It is the responsibility of the applicant to remain aware of any updates and to use the latest version of the official call documents should they be published after the publication of this document.

Please note that this document is susceptible to data corruption, unauthorized amendment, and interception by unauthorized third parties for which we accept no liability.

## Acknowledgements

We thank our NCP colleagues and RADIANCE project task members from Croatia, Iceland and Türkiye, external Experts/Scientists who acted as Evaluators for their valuable insights, as well as the EC / REA Staff, for valuable feedback.

## How to use the Handbook

This Handbook should be used in conjunction with the MSCA Work Programme 2023 – 2025, Guide for Applicants, official FAQs, and Standard application form (HE MSCA DN), downloaded from the call webpage on the Funding & Tender Opportunities Portal, recording of the EC online info day on Doctoral Networks 2025**,** as well as MSCA-NET FAQ blog and MSCA-NET Policy Briefs. Please note that the information in this Handbook complements the information contained in the template for Part B of the proposal.

- Information from the original Part B template (including official footnotes) is written in black Times New Roman font.
- Additional suggestions & information (including footnotes) for each section of the proposal (Parts B1 and B2) are written in blue and Arial font.
- Tables with the top strengths and weaknesses of each sub-criterion illustrate comments by evaluators in previous Evaluation Summary Reports.

***NOTE*****:** *With the harmonisation with the rest of the HE Programme, from the 2024 call onwards, REA is no longer using the 'Strengths and weaknesses' separated format in its Evaluation Summary Reports (ESRs). Instead, the DN 2025 ESRs will include paragraphs for each evaluation criterion.*

## MSCA Doctoral Networks essentials

Before you begin preparing your proposal, please ensure you are aware of the following facts and comply with the requested requirements:

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| **MSCA DN DEADLINE** | • **25 November 2025, 17:00 Brussels time**<br>• It is encouraged that you submit your application well before the deadline and avoid submitting your application at the last minute. Once submitted you can reopen, edit and resubmit your proposal as many times as required before the call deadline. Only the last submitted version of the proposal will be evaluated. Please start early! |
| **IMPLEMENTATION MODES** | • **"Standard" Doctoral Networks (DN):** aim to meet the objectives of the call by enrolling candidates in a doctoral programme and a joint research project.<br>• **Industrial Doctorates (DN-ID):** aim to meet the objectives of the call but go further by requiring the mandatory involvement of the non-academic sector in the doctoral training (each doctoral candidate must spend at least 50% of their time in the non-academic sector and must be co-supervised by supervisors from both sectors).<br>• **Joint Doctorates (DN-JD)**: aim to meet the objectives of the call but go further by proposing the creation of joint doctoral programmes leading to the delivery of joint, double or multiple doctoral degrees recognized in at least one EU Member State (MS) or Horizon Europe Associated Country (AC). Each doctoral candidate must be enrolled in a joint, double or |

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| | multiple degree awarded by at least one participating organisation from a MS or AC.<br>• In all types of action, each doctoral candidate must be enrolled in a doctoral programme in at least one EU MS or Horizon Europe AC and should work full-time on the project. |
| **CONSORTIUM REQUIREMENTS** | • At least three independent legal entities, each established in a different EU MS or HE AC. A minimum of ONE beneficiary must be from an EU MS. On top of this minimum, any entity from any Third Country can join and there is no minimum for associated partners.<br>• At least one (two for DN-JD) partner(s) must be entitled to award a doctoral degree.<br>• Doctoral candidates in DN-ID must spend at least 50% of their time in the non-academic sector, which requires the presence of non-academic entities as beneficiaries or associated partners. |
| **RESUBMISSION** | • **Applicants having received a score below 80%** in the Doctoral Networks 2024 call are **NOT ELIGIBLE** to resubmit a similar proposal in the Doctoral Network 2025 call.<br>• As specified in the Horizon Europe Standard application form (Part A), a `similar' proposal or contract is one that differs from the current one in minor ways, and in which some of the present consortium members are involved.<br>• As stated in the Guide for Applicants 2025, **any proposal involving 70% or more of the same recruiting organisations** as in another proposal submitted to the previous call of the MSCA DN that has received a score of less than 80% will be assessed for whether it is a resubmission, irrespective of the applicants' self-declaration. This assessment will be carried out by external expert evaluators based on the similarity of objectives as well as on the similarity of the scientific approach proposed to reach such objectives.<br>• If you intend to re-submit a proposal, you must indicate re-submission in Part A of the project proposal, including the reference number of the previously submitted proposal. |

Upon fulfilling requirements for the 2025 call, make sure you have also prepared the following:

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| **COMMUNICATING CONSORTIUM AGREEMENT** | • During the preparation of the proposal, the coordinator should initiate negotiations and discussions with the other beneficiaries on the main terms of the consortium: project implementation, internal organisation and management, project budget and distribution of EU funding, additional IP rules, rights and obligation of consortium partners, etc.<br>• The Consortium Agreement (CA) should be negotiated and concluded before signing the Grant Agreement (GA) and should complement the GA but must not contain any provision contrary to it. |
| **PRE-AGREEMENT FOR DN JOINT DOCTORATES (DN-JD)** | • For DN-JD, at the time of the submission of the proposal, letters of pre-agreement to award joint, double or multiple degrees to the doctoral candidate(s) from those academic beneficiaries/associated partners that will award the doctoral degrees must be included in the proposal (Part B2).<br>• The pre-agreement template is available in the Part B2 – section 9. |

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| **PARTNERSHIP AGREEMENT** | • When associated partners are involved, the beneficiary is encouraged to sign a partnership agreement with them to regulate the internal relationship between all participating organisations. The Partnership Agreement must comply with the Grant Agreement. |
| **GENDER EQUALITY PLAN (GEP)** | • Having a Gender Equality Plan (GEP) is an eligibility criterion for public bodies, higher education establishments and research organisations from MS/AC. Be aware that if the proposal is selected, having a GEP will be necessary before the grant agreement signature. Please refer to the Horizon Europe guidance on gender equality plans.<br>• Make sure that consortium beneficiaries are familiar with this eligibility criterion. |
| **REQUIRED & RECOMMENDED DOCUMENTS** | • Read the required documents that contain the rules and conditions for the call, the template for project proposals as well frequently asked questions (FAQs)<br>✓ Doctoral Network Guide for Applicants 2025<br>✓ MSCA Work Programme 2023 – 2025<br>✓ Specific FAQs for Doctoral Network call<br>✓ RADIANCE Q&A blog<br>✓ Proposal template and instructions on how to fill it in |
| **RADIANCE Policy Briefs** | • The Policy Briefs originally produced as part of the former NCP network project “MSCA-NET” (2022-2025) continue to serve as valuable resources under the current RADIANCE project. These briefs are designed to provide a short, but comprehensive overview of the European policy objectives and how these feed into shaping Horizon Europe. They aim to help researchers and organisations better understand the policy objectives in the context of the Marie Skłodowska-Curie Actions.<br>• Available Policy Briefs are:<br>◦ Open Science<br>◦ Missions in HE<br>◦ Gender<br>◦ Green Deal<br>◦ Synergies<br>◦ Supervision<br>◦ Charter for Researchers<br>◦ Widening<br>◦ Artificial Intelligence<br>◦ Ethics |
| **FAMILIARISE YOURSELF WITH THE SUBMISSION PROCESS** | • Proposals must be created and submitted on the Funding & Tender Opportunities Portal by a contact person of the coordinating organisation – using the coordinator’s Participant Identification Code (PIC) number.<br>• Proposal templates (Part B) can be downloaded once the submission has been started and a proposal profile is created on the Funding & Tender Opportunities Portal.<br>• For more details on the submission process, you can consult the Proposal Submission Service User Manual and the RADIANCE Submission Guide. |

**UNDERSTAND WHAT IS REQUIRED FOR THE SUBMISSION**

- **Administrative forms (Part A)**
  Part A constitutes an integral part of your proposal; it is the part of the proposal where you will be asked for certain administrative details that will be used in the evaluation and further processing of your proposal. For more information, please refer to the **Standard application form (HE MSCA DN)** (pages from 1 to 20).

  In Part A beneficiaries fill in the information about the researchers involved and the role of participating organisations in the project. Associated partners should fill in the information about the researchers involved, but do not need to fill in the role of participating organisation in the project. This information however will need to be described in the relevant sections of parts B1 and B2.
  Also, in Part A, it is not required for the beneficiaries or the associated partners, to fill in the list of up to five publications, relevant previous projects, or significant infrastructure. This information however will need to be described in the relevant sections of Part B2 (Section 8).
- **Narrative Part B** is composed of two separate PDF files (Part B1 and Part B2), which must be uploaded as separate PDF files:
- **Part B1,** containing a maximum of 34 A4 pages.
  - The Start Page must consist of 1 whole page.
  - The Table of Contents must consist of 1 whole page.
  - The list of Participating Organisations data, including the non-academic beneficiaries and declarations tables, must consist of a maximum of 2 whole pages.
  - Section 1 (Excellence) must start on page 5 of the document.
  - The core of the proposal (section 1 – Excellence, section 2 – Impact and section 3 – Implementation) **must have a maximum of 30 pages.**
  - Any excess pages will not be made available to the evaluators and therefore will not be taken into account.

- **Part B2**, with no strict page limit for the number of pages, containing:
  - Section 4. Recruitment strategy
  - Section 5. Network organisation
  - Section 6. Supervisory board
  - Section 7. Environmental aspects in light of the MSCA Green Charter.
  - Section 8. Participating organisation – one table of maximum of one page for each beneficiary and half a page for each associated partner.
  - Section 9. DN - JD Pre-agreement letter.

When considering the use of generative artificial intelligence (AI) tools for the preparation of the proposal, have in mind you are fully responsible for the content of the proposal (even those parts produced by the AI tool) and must be transparent in disclosing which AI tools were used and how they were utilized. **Text explaining the use of generative AI in the preparation of the proposal should be included at the end of part B2.**

- Bear in mind that formatting for Part B1 must be continued for part B2.

**All sections of the proposal will be included in the evaluation.**

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| | Applicants will **NOT** be able to submit their proposal in the submission system unless both parts 1 and 2 are provided in PDF format (Adobe version 3 or higher, with embedded fonts).<br>You should name your part B documents as:<br>• Proposal Number-Acronym-Part B1.pdf<br>• Proposal Number-Acronym-Part B2.pdf<br><br>**The maximum size of each document is 10 MB.** |
| **NCP SUPPORT** | • You can contact your MSCA National Contact Point (NCP) via Find your NCP MSCA \| Horizon Europe NCP Portal |

## Key tips for proposal template and layout

The following information is important to familiarise yourself with as it will make the review process for the evaluator easier.

### 1. General points and information on Part A

- **Acronym:** Use a self-explanatory title and a memorable acronym. Don't forget that you will not be able to change the acronym once you submit your proposal on the Funding and Tenders Portal.

- The acronym will be on your proposal, and you will refer to it throughout your communication and dissemination activities. Ensure that the acronym is short, easy to pronounce, and easy to remember by the evaluators. Please also be careful that it cannot be construed as inappropriate or have a ''double meaning'' in another language.

- A useful tool for creating an acronym is: **http://acronymcreator.net/**

- The proposal acronym could be placed in a header on each page as an addition to already placed information: e.g., Call: - HORIZON-MSCA-2025-DN-01 – MSCA Doctoral Networks 2025 – Implementation mode (DN, DN-ID, DN-JD) - ACRONYM

- Check http://cordis.europa.eu/projects/home_en.html to see if an EU project with the same acronym already exists. An internet search could also be used to determine if the acronym is "protected".

- **For resubmissions,** don't just use the Evaluation Summary Report (ESR) from the previous submission. Review the proposal as a whole to find room for improvement. Your new proposal is not being evaluated in comparison with the old one.

- Evaluators may have access to the previous ESR after they have evaluated the new proposal.

- Part B is slightly changed from last year (e.g., subheadings), so please be sure that you are using the template of the 2025 MSCA DN-call for proposals.

- Be aware of the overall weighting of each criterion. You need to score well in all sections to be funded.

- **Descriptors & free keywords**: Choose carefully up to 5 (and at least 3) descriptors (among the fixed descriptors related to your chosen panel) that best characterise the subject of your proposal, **in descending order of relevance**. You can also enter any words you think give extra detail on the scope of your proposal.
- It is important to carefully choose your descriptors as they will be used to support REA services in identifying the best qualified evaluators for your proposal (matchmaking process between the descriptors of your proposal and the descriptors of the registered evaluators' expertise).
- A description on how to select the keywords is available in a specific FAQ.

**2. Abstract**

- The abstract is a short description of your project (maximum 2000 characters permitted including spaces).

- The main elements are:
  - 1-2 sentences that put the project into context including the research objective
  - Background information on the state of the art
  - Specific aims and details of training a new generation of researchers

- Abstracts in Part A should not contain sensitive information, as they will be made publicly available if the project is funded.

- An abstract should promote your project and be understandable to the non-expert.

- It should communicate the importance, impact and timeliness of the project and also convince the evaluator that it should be funded.

- It should **NOT** be the usual scientific abstract.

- See ideas of existing projects in CORDIS (using filters Projects – Horizon Europa – Marie Skłodowska-Curie actions )

**3. Proposal layout**

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

- 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 several pages compared to using the reference font (for example to bypass the page limit).

- **The minimum font size allowed is 11 points.** Standard character spacing and a minimum of single line spacing are to be used.

- Use charts, diagrams, text boxes, figures to explain aspects of the project. Do not just use blocks of text. Don't forget to add serial numbers and titles to the charts/diagrams/figures/text boxes.

- For official tables in the template, and if needed, additional tables for illustrating the core text of the proposal, the **minimum font size is 9**. Tables should not be used to circumvent the minimum font size indicated for the main text.

- Ensure that any colour diagrams, etc., are legible when printed (also if printed in black and white).

- Use highlighting where appropriate (bold, underline, italics) but don't overdo it!

- **Literature references should be listed in the footnotes, using font size 8**. All footnotes will count towards the page limit.

- Avoid hyperlinks to information that is designed to expand the proposal. Evaluators will be instructed to ignore them. Include the relevant information in your text.

## 4. Proposal template

- Use the proposal template provided, including the exact sub-headings, because:

  - It matches the evaluation template and helps you to put the right information in the right place for the evaluators to find it.

  - Evaluators use a "checklist" approach to marking – make it easy for them to find the relevant information.

- Both Part B documents need to have a header on each page containing: the proposal acronym, call identifier and implementation mode applied to the type of DN (DN, DN-ID, DN-JD): **"Call: [HORIZON-MSCA-2025-DN-01-01] – [MSCA Doctoral Networks 2025 – Industrial Doctorates – DN ID] ACRONYM"**

- All pages should be numbered in a single series on the footer of the page to prevent errors during handling. It is recommended to apply the following numbering format: "Part B - Page X of Y"

- Don't remove the tags (e.g., #@REL-EVA-RE@#)! Tags do not affect the evaluation but are needed and used by the EC services for internal data processing and should not be deleted. If needed, tags may be in a smaller font.

- Name your part B1 and B2 of proposal as following: Proposal Number – Acronym – Part B1.pdf and Proposal Number – Acronym – Part B2.pdf.

**5. Page limitations**

- In Part B1, Sections 1, 2 and 3 together **must not be longer than 30 pages.** With the start page, the table of contents and list of participating organisations added, Part B1 must not exceed **34 pages.**
- All tables, figures, references and any other element about these sections must be included as an integral part of these sections and they are counted towards this page limit.
- After the deadline, excess pages (in overly long proposals) will be automatically blanked, and therefore will not be taken into consideration by the evaluators.

**6. Proposal language**

- The proposal must be written in English.
- Explain any abbreviations the first time you use them.
- Use simple clear language to be sure that it reads well.
- Avoid long sentences. Avoid too much repetition. Sign-post or put reference to other parts of the proposal if necessary.
- Do not copy & paste information from other documents/websites. Instead, tailor information to fit your proposal.

## Definitions and key aspects

| DEFINITIONS and KEY ASPECTS from the EC that can be useful while preparing your Doctoral Networks project proposal | |
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| **Artificial Intelligence**[1] | Artificial intelligence (AI) refers to systems that display intelligent behaviour by analysing their environment and taking actions – with some degree of autonomy – to achieve specific goals.<br><br>AI-based systems can be purely software-based, acting in the virtual world (e.g., voice assistants, image analysis software, search engines, speech and face recognition systems) or AI can be embedded in hardware devices (e.g., advanced robots, autonomous cars, drones or Internet of Things applications)<br><br>**If you plan to make use of Artificial Intelligence in your project, the evaluators will evaluate the technical robustness of the proposed system under the appropriate criterion – (methodology aspect of the project), as such it should be considered while writing the Excellence part of the project proposal.** |

[1] Definition from the European Commission's High-Level Expert Group on Artificial Intelligence, https://ec.europa.eu/futurium/en/system/files/ged/ai_hleg_definition_of_ai_18_december_1.pdf

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| **Guidance on the use of generative AI tools for the preparation of the proposal** | When considering the use of generative artificial intelligence (AI) tools for the preparation of the proposal, it is imperative to exercise caution and careful consideration. The AI-generated content should be thoroughly reviewed and validated by the applicants to ensure its appropriateness and accuracy, as well as its compliance with intellectual property regulations. Applicants are fully responsible for the content of the proposal (even those parts produced by the AI tool) and must be transparent in disclosing which AI tools were used and how they were utilized.<br><br>Specifically, applicants are required to:<br><br>• Verify the accuracy, validity, and appropriateness of the content and any citations generated by the AI tool and correct any errors or inconsistencies.<br><br>• Provide a list of sources used to generate content and citations, including those generated by the AI tool. Double-check citations to ensure they are accurate and properly referenced.<br><br>• Be conscious of the potential for plagiarism where the AI tool may have reproduced substantial text from other sources. Check the original sources to be sure you are not plagiarizing someone else's work.<br><br>Acknowledge the limitations of the AI tool in the proposal preparation, including the potential for bias, errors, and gaps in knowledge.<br><br>**Note that you should address these points in section 10 of Part B2.** |
| **Associated Partners** | Associated partners are entities which participate in the action but without the right to directly charge costs or claim contributions. They contribute to the implementation of the action, but do not sign the Grant Agreement. Associated partners may not employ the researchers under the action. |
| **Associated Partners linked to a beneficiary** | Associated partners linked to a beneficiary are organisations with an established capital or legal link with the beneficiary, which is not limited to the action nor specifically created for its implementation.<br><br>The associated partners linked to a beneficiary do not have the right to claim unit contributions and may not employ the researcher under the action. In addition, they must fulfil the eligibility conditions for participation and funding applicable to the beneficiary to which they are linked.<br><br>The type of link and involvement of such entities must be clearly described in the proposal and will be assessed as part of the evaluation. |
| **Beneficiaries** | Legal entities based in a country eligible for EU funding (see **List of participating organisation in Horizon Europe**). They recruit at least one doctoral candidate and train and/or host seconded doctoral candidates. They sign the Grant Agreement with the European Commission, directly claim unit contributions and participate in the Supervisory Board. |
| **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. |

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| | Level of likelihood to occur (low/medium/high): The likelihood is the estimated probability that the risk will materialize even after taking account of the mitigating measures put in place.<br><br>Level of severity (low/medium/high): the relative seriousness of the risk and the significance of its effect. |
| **Consortium Agreement (CA)** | The Consortium Agreement (CA) is a private agreement between the beneficiaries, to set out the rights and obligations amongst themselves. It does not involve the European Commission / REA.<br><br>It sets the framework for successful project implementation and exploitation of results including intellectual property management and is meant to settle all issues that might hamper the smooth and seamless cooperation of the different actors for the different parts of the project.<br><br>The members of the consortium must sign a Consortium Agreement (contractual obligation under the Grant Agreement).<br><br>The DESCA (Development of a Simplified Consortium Agreement) model for the Consortium Agreement also provides possibilities to include associated partners into the Consortium Agreement. |
| **CORDIS** | The Community Research and Development Information Service – CORDIS – is the European Commission's primary public repository and portal to disseminate information on all EU-funded research projects and their results in the broadest sense. In this web service, you can find information (calls, projects, partners, contacts) about all European projects. |
| **Deliverable** | A report that is sent to the European Commission or REA 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, other documents, ethics or security requirements, software products, technical diagram brochures, etc.).<br><br>Deliverables must be produced at a given moment during the action. Each work package will produce one or more deliverables during the project. |
| **Evaluation criteria** | The criteria against which independent expert evaluators assess eligible proposals. For MSCA, they are related to excellence, impact, and quality and efficiency of implementation. |
| **Evaluation process for MSCA** | Each full proposal is evaluated by at least three experts, but in some cases more experts may be needed who know about the full range of disciplines and sectors covered by the proposal. Experts work individually. After carrying out an individual evaluation, an expert will join other experts who have evaluated the same proposal in a consensus group, to agree on a common position, including comments and scores. Before notifying coordinators of the final evaluation results, the Commission reviews the results of the experts' evaluations and puts together the final ranking list for funding under the call. |
| **Evaluation Summary Report (ESR)** | The Evaluation Summary Report (ESR) is the assessment of the proposal following the evaluation by independent experts. The ESR contains comments and scores for each criterion. |

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| **Grant Agreement (GA)** | The Grant Agreement (GA) is the legal instrument that provides for Commission funding of a successful proposal. See: Grant Agreement preparation procedure |
| **Impacts** | Wider long-term effects on society (including the environment), the economy and science, are enabled by the outcomes of R&I investments (long term). Impacts generally occur sometime after the end of the project. For this call, Impacts refers to section 2. 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 helping to chart progress. Milestones may correspond to the achievement of a key result, allowing the next phase of the work to begin. They may also be needed at intermediary points so that, if problems have arisen, corrective measures can be taken. A milestone may be a critical decision point in the project where, for example, the consortium must decide which of several technologies to adopt for further development. The achievement of a milestone should be verifiable. |
| **MSCA Green Charter** | The MSCA Green Charter is a code of good practice for individuals and institutions that receive MSCA funding. It promotes the sustainable implementation of research activities. The goal of the Green Charter is to encourage sustainable thinking in research management. This document can give you some ideas while writing the implementation section of your project proposal.<br>In Part B2 Section 7 you can show how you will include environmental considerations in the proposed project's implementation.<br>More information is available on https://marie-sklodowska-curie-actions.ec.europa.eu/about-msca/msca-green-charter and in The Marie Skłodowska-Curie Actions Green Charter Survey: Greening practices in MSCA projects. |
| **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.<br>These may range from tackling specific research questions, demonstrating the feasibility of innovation to sharing knowledge among stakeholders on specific issues. These points could be considered in every proposal.<br>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.<br>Example: *9 European airports adopt the advanced forecasting system demonstrated during the project.* |
| **Open Science** | 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. |

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| | Open Science practices include early and open sharing of research (for example through pre-registration, 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). |
| **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, and ultimately to the wider scientific, economic and societal impacts of the work programme destination. |
| **PA - Partnership Agreement** | Partnership agreements (PA) are private agreements concluded with the purpose to regulate the relationship between beneficiaries and associate partners, including the secondment period framework. Beneficiaries must be careful to conclude these agreements in compliance with their obligations laid down in the Grant Agreement and, depending on the project, the Consortium Agreement as well. |
| **Secondment Agreement** | Secondment agreements are private (usually bilateral) agreements concluded between the legal entity which is the employer of a doctoral candidate (sending organisation) and the legal entity which will host the doctoral candidate for a secondment (hosting organisation for secondment) with the purpose to regulate the relationship between both entities (name of seconded doctoral candidate, secondment start/end dates, names of supervisors, any financial arrangements, etc.). |
| **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** | Whatever 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' (IPR).<br><br>Example: *Successful large-scale demonstrator: trial with 3 airports of an advanced forecasting system for proactive airport passenger flow management.* |
| **Supervision** | Employers and/or funders should ensure that a person is clearly identified to whom researchers can refer for the performance of their professional duties and should inform the researchers accordingly.<br><br>Such arrangements should clearly define that the proposed supervisors are sufficiently expert in supervising research, have the time, knowledge, experience, expertise, and commitment to be able to offer the recruited researcher |

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| | appropriate support and provide for the necessary progress and review procedures, as well as the necessary feedback mechanisms.<br>While the MSCA Guidelines on Supervision are non-binding, **funded-projects are strongly encouraged to take them into account.** |

## Part B-1

### TABLE OF CONTENTS (*max. 1 page*)

[This document is tagged. Do not delete the tags; they are needed for processing.] #@APP-FORM-HEMSCADN@#

➢ Insert a full table of contents with page numbers, including main headings and sub-headings. Include the sections from Document 1 (Part B1) and Document 2 (Part B2).

### LIST OF PARTICIPATING ORGANISATIONS (*max. 2 pages*)

Please provide a list of the consortium's members (both beneficiaries and associated partners[2]) indicating the legal entity, the department carrying out the work and the scientist/person-in-charge of the action. Entities with a capital or legal link should be added under the associated partners linked to a beneficiary.

| Consortium Member | Legal Entity Short Name* | Academic **(tick) | Non-academic **(tick) | Awards Doctoral Degrees (tick) | Country | Dept./ Division / Laboratory | Scientist/Person in-Charge | Role of associated Partner[3] or link to beneficiary |
|---|---|---|---|---|---|---|---|---|
| Beneficiaries | | | | | | | | |
| - NAME*<br>Insert full legal name of the organisation (must be consistent with Part A)<br>e.g., Rheinische Friedrich-Wilhelms-Universitaet Bonn | Insert short name of the organisation<br>e.g., UBO | | | | | | | Do not complete this section. |

[2] Please refer to the section on associated partners
[3] For example, delivering specialised training courses, hosting secondments, etc.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Associated Partners | | | | | | | | |
| - NAME*<br>Insert full legal name of the partner (must be consistent with Part A) | Insert short name of the partner | | | | | | | Enter the role of the partner: e.g. training, hosting secondments, delivering doctoral degree, etc. |
| Associated Partners linked to a beneficiary | | | | | | | | |
| - NAME*<br>Insert full legal name of the partner | Insert short name of the partner | | | | | | | Explain the role of the partner and the link to the beneficiary |

* Please use the same participant numbering and names as the ones used in the administrative proposal forms. Please note that in the submission forms in Part A, Beneficiaries are labelled as "Partners".

- The order of the organisations/beneficiaries should align with how they were entered in Part A.

** Please ensure that the sector of the entity is consistent with the one from part A and follows the definition from the Work Programme which is recalled at the beginning of this document.

For non-academic beneficiaries, please provide additional data as indicated in the table below.

- This section is **only for the non-academic beneficiaries** and does not need to be completed for non-academic Associated Partners or academic beneficiaries.

**Data for non-academic beneficiaries:**

| Name | Location of research premises (city / country) | Type of R&D activities | No. of full-time employees | No. of employees in R&D | Web site | Annual turnover[4] (in Euro) | Enterprise status (Yes/No) | SME status[5] (Yes/No) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

- The information in the above table **must be based on current data, not projections**
- The financial and operational capacity of organisations participating in successful proposals will be subject to verification during the grant preparation phase

**Declarations**

| Name (institution / individual) | Nature of inter-relationship |
|---|---|
| | |
| | |

- Applicants **must** use the table above to **declare any inter-relationship between different participating institutions or individuals** (e.g. family ties, shared premises or facilities, joint or part ownership, financial interest, overlapping staff or directors, etc.)

- If you have associated partners linked to the beneficiary, you need to declare their connection and inter-relationship.
- If two whole pages are not used for this section, the remaining space must be left blank. For example, if only 1 page is used for the list of participating organisations, then the 2nd page must be completely blank. The Excellence section must start on page 5 of the proposal.

[4] Defined as the total value of sales of goods and services during the last accounting period.
[5] As defined in Commission Recommendation 2003/361/EC.

START PAGE COUNT – MAX 30 PAGES

## 1. Excellence #@REL-EVA-RE@# *(starting on p.5)*

***Excellence – aspects to be taken into account.***

- Quality and pertinence of the project's research and innovation objectives (and the extent to which they are ambitious, and go beyond the state of the art).
- Soundness of the proposed methodology (including interdisciplinary approaches, consideration of the gender dimension and other diversity aspects if relevant for the research project, and the quality and appropriateness of open science practices).
- Quality and credibility of the training programme (including transferable skills, inter/multidisciplinary, inter-sectoral and gender as well as other diversity aspects).
- Quality of the supervision (including mandatory joint supervision for industrial and joint doctorate projects).

### 1.1 Quality and pertinence of the project's research and innovation objectives (and the extent to which they are ambitious, and go beyond the state of the art)

Required sub-headings:

- Introduction, objectives and overview of the overall research programme. Briefly describe the objectives of your proposed work. Are the objectives verifiable with appropriate quantitative or qualitative indicators? Are they realistically achievable?

- Describe the bigger picture (context): As a short introduction, state the research/technical question and knowledge/specific skills gap(s) your proposal addresses, its relevance to current European and/or international policies (if applicable), and your proposed solution to tackle this challenge.
- Demonstrate the timeliness and relevance of your proposal, in terms of scientific, training, economic and/or societal need, fit to sectoral policy targets, and link to relevant EU policies as well as UN Sustainable Development Goals.
- Have in mind that individual training of the doctoral candidates should be delivered through an outstanding research programme and excellent doctoral training programme. You should focus on the research dimension of the programme in this section. The training dimension will be discussed in 1.3.
- Outline the overall field/research theme of the network, describing the overall research goal of the DN (global objective). The research programme must be cohesive and coherent.
- Describe why this consortium is best placed to address this research topic from a cohesive, multi-/inter-disciplinary, and intersectoral point of view, and how the outcome of the network will be greater than the sum of its parts.
- Think about why you are proposing this project and why now!
- Provide a clear outline of the key specific research and innovation objectives of the programme.
- Make sure the research objectives are SMART (Specific, Measurable, Attainable, Relevant and Time-Bound). Moreover, it is important that the research objectives are feasible. For clarity present them in a bulleted list or text box, relating them to the relevant Work Packages under section 3.1.

- Each research objective ideally should correspond to the research work packages. For example, research objective 1 is the objective for research WP 1. Number the objectives O1, O2, O3 etc. and include the corresponding work package in brackets at the end of each objective (e.g. WP1).
- For the research and innovation objectives, bear in mind that innovation can also include social innovation.
- Outline how the research programme is multi-/inter-disciplinary and intersectoral.

- Individual Doctoral Candidate (DC) research projects. Describe each DC's individual research project, including for each a title, objectives, expected results, and planned secondments (purpose, timing, duration, host, sector). Explain how those projects will be integrated into – and contribute to – the overall research programme and objectives.

- You should outline each DC's individual research project and describe the integration and contribution of the **individual research projects** into the overall concept – each individual research project should be in line with the objectives of the consortium (including clear and relevant research and training programme) and addressing research sub-questions.
- Please note: individual research projects should be presented in a text format and no longer in tables as in previous calls.
- Make sure the individual research projects are coherent with the WP(s) to which they are related and with the overall Work Plan.
- Emphasize the consistency between the individual research projects and related secondments and highlight the links between different individual research projects.
- Carefully plan secondments to ensure that both their timing and duration align effectively with the research projects and their objectives.

- Pertinence and innovative aspects of the research programme (in light of the current state of the art and existing programmes / networks / doctoral research trainings). Describe briefly the current state-of-the-art and how your project goes beyond it, and the extent the proposed work is ambitious.

- Describe clearly the state-of-the-art in the research area and how the specific research and innovation objectives of your project will advance the field beyond the current state-of-the-art (project ambition).
- Show that you clearly understand the state-of-the-art in your area: support your state-of-the-art review through key international bibliographic references (in footnotes, font size 8) – also cite the consortium (but not only!) to show that you are the experts in the field. Aim to be effective rather than exhaustive in terms of citations.
- Benchmark against other doctoral research training programmes at national or international level. Previous MSCA DN and ITN projects can be checked via the CORDIS portal, but do not limit your benchmark to only EU-funded consortia.
- Consider establishing the links between your programme and existing programmes (e.g., other doctoral programmes funding by regional, national R&I funding as well as other parts of Horizon Europe or other Union programmes such as European Universities Alliances).
- Show the gap existing in doctoral training in your research area and explain how your project will fill this gap. Highlight the need for the specialists you will train among industrial and academic stakeholders in Europe.
- Highlight what makes your project ambitious. To stress the novelty of your project, consider using terms such as "novel", "highly innovative", "unique", "first-time", "cutting-edge" etc.
- Remember that the ambition level of the individual research projects should reflect how the project will go beyond the current state-of the-art.

The action should be divided in **Work Packages** and described in the Table 3.1a under the Implementation section.

- In Table 3.1a in section 3, break down the research programme into (typically) three or four discrete research Work Packages that relate to the research and innovation objectives described above, adding separate Work Packages for training, management and dissemination, communication and exploitation.

| STRENGTHS – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS |
|---|
| • The state-of-the-art is for the most part appropriately introduced, and the limitations of the existing techniques are sufficiently explained.<br>• The project objectives are extremely clearly articulated, they are measurable, verifiable, and realistically achievable within the project timeframe, and their relevance is outstanding.<br>• The integration of the individual projects into the overall concept is credibly described; each project is in line with the objectives of the consortium and addresses its overarching investigation and research sub-questions.<br>• The programme is ambitious and innovative through its cross-sectoral involvement of key stakeholders, which will bring forward new perspectives, insights and innovative solutions.<br>• The planned research is comprehensively formulated in four research work packages. The proposed methodology is convincingly detailed and strongly supported by various background studies, mostly carried out by the members of the participating teams.<br>• The objectives of the proposal are very clear and well defined with sufficient key performance indicators (KPIs) for proper verification and assessment. |

| WEAKNESSES – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS |
|---|
| • Although the objectives are clearly stated, they lack sufficient specificity and verifiability; in particular, objective quantification is insufficiently developed. Furthermore, the proposal does not credibly justify that the objectives are achievable within the given timeline.<br>• Some aspects of the state of art are not fully supported by reference to peer-reviewed literature. The logical structure of the Work Packages and their interconnection regarding the research workflow are not fully convincing.<br>• The state of the art is not convincing because the presented literature review and the gaps in the literature presented are insufficient.<br>• The scientific originality/innovation is not adequately demonstrated against similar research performed in other areas of the world.<br>• Key metrics associated with research objectives are not sufficiently described which may hinder the effective monitoring progress towards achievement.<br>• The proposal does not fully show a common conceptual ground that would tie the different elements of the individual research projects in order to achieve a more integrative multidisciplinary approach in relation to the various research objectives. |

**1.2 Soundness of the proposed methodology** (including interdisciplinary approaches, consideration of the gender dimension and other diversity aspects if relevant for the research project, and the quality and appropriateness of open science practices)

Required sub-headings:

- Overall methodology: 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.

- Give a clear description and justification of the research methodology. Why is it promising? Why is it better than other methods? What is new?
- You may also refer to the individual research projects when explaining the methodology.
- Describe in detail how the objectives in the research programme will be achieved - e.g. make reference, where relevant, to equipment, techniques, tests, types of research, models, applications, etc. You need to provide enough information so that the evaluator can understand how you will tackle the problem at hand and can clearly see what is novel/interesting about your particular approach (e.g., analysis, concept, methods, techniques, etc.).
- You can organize the overall methodology description by work package (not mandatory).

- Integration of methods and disciplines to pursue the objectives: 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 not necessary in the context of the proposed work, please provide a justification.

- Interdisciplinarity means the integration/ combination of information, data, techniques, tools, perspectives, concepts, or theories from two or more scientific disciplines. The term discipline refers to the first level of MSCA keywords.
- Once more, you need to highlight the multi- / inter-disciplinary aspects focusing on the research methodology.
- Also, explain the added value of the interdisciplinary approach to address your research and training objective(s).
- Ask yourself why this consortium is the best team to address these research objectives from a cohesive, multidisciplinary, and intersectoral point of view. Highlight the role of each consortium member in the research programme.
- If applicable, besides beneficiaries, include specific and interdisciplinary methods from associated partners who will provide additional training for doctoral candidates.

- Gender dimension and other diversity aspects: Describe how the gender dimension and other diversity aspects (age, disability, race and ethnicity, religion or belief, and sexual orientation) are taken into account in the project's research and innovation content, if relevant for your project. If you do not consider such a gender dimension to be relevant in your project, please provide a brief justification.

⚠ *Remember 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, gender and diversity 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://op.europa.eu/en/publication-detail/-/publication/33b4c99f-2e66-11eb-b27b-01aa75ed71a1/language-en

- In other words, **you should take into account biological characteristics (sex), social/cultural features (gender), and other diversity aspects in your research.** You are encouraged to use gender inclusive language and not to think about gender in binary categories, as sexual orientation and gender identity are important. Ask yourself the following questions:
  - Are sex/gender norms embedded in the concepts, theories and models used by your research field? If so, how do these gender norms/assumptions influence the research area?
  - How do gender and interconnected social categorizations, such as race, class etc. shape your research question and desired outcomes?

- Does the chosen methodology(ies) ensure that sex/gender, and other connected social characterizations, are considered and investigated?
- Does the methodology ensure that (possible) gender differences will be investigated: that sex/gender differentiated data will be collected and analysed throughout the research cycle? Are questionnaires, surveys, focus groups, etc. designed to unravel potentially relevant sex and/or gender differences in your data? Are the groups involved in the project (e.g., samples, testing groups) gender-balanced?
- Have you explained the project's approach to gender and intersectionality throughout the research life cycle?
- Have you explained how including sex and gender findings will increase the quality of the research and enhance the impact and relevance of the results?

- The MSCA-NET Policy Brief on Gender provides an overview of the gender equality requirements under MSCA, guidance on the evaluation criteria, and how to approach the gender dimension of research when developing your proposal.

- Note that, in addition to describing the gender and diversity aspects in the research, it is also possible to address the gender dimension through training (section 1.3) and communication/dissemination activities (section 2.3).

- More questions on gender aspects in research are available on Yellow window Checklist for Gender in Research**.**
- The European Commission produced a video on Understanding the Gender Dimension for MSCA projects.
- The European Commission has published Toolkit gender in EU-funded research.

- A gender dimension may apply to research involving the use of animals too. If this applies to your research programme, you must briefly explain how you have taken sex/gender into account in the research methodology, e.g., using animal models of both sexes, and separation of research subjects into male and female groups.
- Apart from the gender dimension in research, if applicable, include other diversity aspects to better address the multiple and interacting factors of inequality experienced by R&I actors, such as other social categories and identities: e.g., ethnicity and race (including migrants and refugees), social class and wealth, human physical parameters (size, weight), gender identity, sexual orientation, LGBTI+ issues, disability, and age.
- If your research is not concerned with gender issues or other diversity aspects, you should clearly explain why and provide a solid justification.

- *Open science practices:* 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. If you believe that none of these practices are appropriate for your project, you should provide a justification.

  ⚠ *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'.*

- You must **provide concrete information on how you plan to comply with the mandatory, and when relevant, recommended open science (OS) practices**[6] – at consortium and beneficiary levels.
- In section 3 while describing the consortium as a whole, you can point out that involved organisations apply OS strategies, especially if they are implementing some specific strategies.

| **Mandatory OS practice** |
|---|
| • Open access to scientific publications under the conditions required by the Grant Agreement;<br>• Responsible management of research data in line with the FAIR principles of 'findability', 'accessibility', 'interoperability' and 'reusability',<br>• Information about the research outputs/tools/instruments needed to validate the conclusions of scientific publications or to validate/re-use research data;<br>• Digital or physical access to the results needed to validate the conclusions of scientific publications, unless exceptions apply;<br>• In cases of public emergency, if requested by the granting authority, immediate open access to all research outputs under open licenses or access under fair and reasonable conditions to legal entities that need the research outputs to address the public emergency. |

| **Recommended OS practice** |
|---|
| Open Science practices beyond the mandatory ones, such as:<br>• involving all relevant knowledge actors, including citizens,<br>• early and open sharing of research,<br>• output management beyond research data,<br>• open peer-review,<br>• pre-registration of research, (i.e. specifying your research plan in advance of your research and submitting it to a registry). |

- Show how OS implementation is adapted to the nature of your work and methodology, therefore increasing the chances of the project delivering on its objectives.
- You can demonstrate the link between OS, communication, dissemination, and exploitation; using the right licenses to comply with the OS and exploitation.

- In addressing OS practices take into account:

| **Open Science Practise** | | **Mandatory** | **Recommended** |
|---|---|---|---|
| Early and open sharing of research | • Preregistration, registered reports, preprints, etc. | | Yes |
| Research output management | • Data management plan (DMP) | Yes | |
| Ensure reproducibility of research outputs | • Information on outputs/tools/instruments and access to data/results for validation of publications | Yes | |

[6] For more information on how to address Open Science in project proposal, you can consult OpenAIRE Guides for Researchers Open Science in Horizon Europe proposal.

| | | | |
|---|---|---|---|
| Open access to research outputs through deposition in trusted repositories | • Open access to publications<br>• Open access to data<br>• Open access to software, models, algorithms, workflows etc. | Yes, for peer-reviewed publications and research data ('as open as possible as closed as necessary') | Yes, for other research outputs. |
| Participate in open peer-review | • Publish in open peer-reviewed journals or platforms | | Yes |
| Involving all relevant knowledge actors | • Involve citizens, civil society, and end-users in co-creation of content (e.g., crowd-sourcing, etc.) | | Yes |

Source: MSCA-NET Policy brief: Open Science.

The Policy Brief provides an overview of the open science and data management requirements under MSCA, and provides additional information on approaching the evaluation criteria, training and skills development, dissemination, communication, and exploitation.

- As a peer-reviewed publishing service you can also use Open Research Europe, the European Commission's open access publishing platform for scientific articles for Horizon 2020 and Horizon Europe.

OS should be "**as open as possible and as closed as necessary**", remaining "open" in order to foster accessibility, reusability, and accelerate research, but at the same time information should be "closed" to safeguard the privacy of the subjects (protection of the private data), protecting results that can reasonably be expected to be commercially or industrially exploited, keeping confidentiality in connection with security issues.

As a general rule, Open Access (OA) to other research outputs such as software, models, algorithms, workflows, protocols, simulations, electronic notebooks, and others is not required but strongly recommended. Access to 'physical' results like cell lines, biospecimens, compounds, materials, etc., is also strongly encouraged.

- It is recommended that you provide OA to research outputs beyond publications and data (software tools, models, apps, etc.) and share them as early and openly as possible – providing guidance for potentially interested users.
- A clear explanation of how the consortium will adopt recommended practices, as appropriate for projects, will be recognized as a project's strength.
- A strong justification is needed in case you believe that none of these practices are appropriate for your project.
- If using the European Open Science Cloud (EOSC) federated repositories, you should explicitly discuss the use of such repositories in the proposal.

⚠ *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 DMP should describe how research outputs (especially research data) generated and/or collected during the project will be managed so as to ensure that they are findable, accessible, interoperable and reusable.*

⚠ *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.*

| STRENGTHS – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS |
|---|
| • The proposal is based on a rigorous, but flexible interdisciplinary methodology that is appropriate for the project objectives, given the complexity of the topic, the diversity of the partners from different countries involved and the multiplicity of the projects that individual researchers will undertake.<br>• The proposal provides clear information on the implementation of open science practices as an integral part of the methodology. It is clearly specified how data will be organized, stored, and shared, ensuring that it is accessible to relevant stakeholders while maintaining compliance with ethical and legal standards.<br>• The gender dimension and other diversity aspects within the research and innovation content are very well addressed. The scientific aims of the proposal specifically address health risk factors which are particular for women and the training includes specific topics of gender balance.<br>• The proposal makes very clear that all members, be it doctoral candidates or supervisors, will be trained in diversity and gender aspects and on how to deal with these issues on the daily work.<br>• Quantitative and qualitative methods are well-justified in relation to the research aims. The balance between novel and established research methods is suitably explained.<br>• The methodology includes detailed descriptions of experimental designs, data collection methods, and analytical techniques, ensuring that the network is well-equipped to deliver on its goals<br>• The methodology is both sound and clear, offering well-structured innovative technological and methodological approaches aligned with the proposed objectives. The methodology includes detailed descriptions of experimental designs, data collection methods, and analytical techniques, ensuring that the network is well-equipped to deliver on its goals.<br>• The inter/multidisciplinary aspects in terms of integration of methods and disciplines to achieve the research objectives are sufficiently considered. |

| WEAKNESSES – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS |
|---|
| • The methodology is described in a too generic way and not sufficiently elaborated to convince on the soundness.<br>• The proposal does not provide a clear description of the scientific methodology. Fundamental concepts remain vague, and methodological challenges are not sufficiently identified. As a result, the methodology does not convincingly support the achievement of the research objectives<br>• The open science practices are insufficiently presented, for example the proposal states that the data will be deposited in a suitable format and at any appropriate time, without clear information on the format and what appropriate time means.<br>• Given the declared Industrial Doctorate modality, the role of the non-academic partners is not sufficiently described. The short description is generic and does not provide details of their role.<br>• The gender dimension in research and training is not sufficiently considered. |

**1.3 Quality and credibility of the training programme** (including transferable skills, inter/multidisciplinary, inter-sectoral and gender as well as other diversity aspects)

Required sub-heading:

- Overview and content structure of the doctoral training programme. Please explain how the activities included in the network-wide training events are meaningful for the intended research and to which extent the training programme includes transferable skills,

inter/multidisciplinary and intersectoral training in support of the DCs development. Please explain how well the network-wide training events complement those programmes offered locally at the participating organisations (please include table 1).

- Big picture: describe the "state-of-the-art" in terms of training in your field (including already funded ITN / DN projects, see CORDIS)
- Clearly identify your training objectives. Your training programme must be ambitious, but realistic.
- Emphasise the "triple i" aspects of the programme: international, inter-sectoral and inter-disciplinary (from the EU Principles for Innovative Doctoral Training).
- Provide a list of the skills you would like to be developed by the doctoral candidates (overall Training objectives), including:
  - **Core research skills or scientific training** (acquired via the Individual Research Project, including the secondments);
  - **Advanced/Additional scientific training and research skills** (acquired through training delivered by the consortium at the network wide level);
  - **Transferable and complementary skills** particularly those useful in non-academic careers (acquired through training delivered by the consortium). The European Competence Framework for Researchers (ResearchComp) can serve as inspiration;
  - **Open Science related training modules** including digital ones, addressing key transferable skills and competences common to all fields and fostering the culture of Open Science, innovation and entrepreneurship (e.g., digital technologies, collaborative tools, opening access to publications and to research data, FAIR data management, public engagement and citizen science, etc.).
  - **Gender and diversity in R&I.**

- Describe the local and the network wide training activities, and show the balance and complementarity between them:

| | |
|---|---|
| **LOCAL TRAINING** | • Offered at the main host organisation where the doctoral candidate will work. Include a description of the Individual Research Programme and the structured training (research training) offered by, for example, local graduate/doctorate schools.<br>• Describe other specific opportunities and trainings offered by the host organisation (e.g., ethics, research integrity, gender, open science) and transferable skills training. It would be beneficial if training offered by one host was accessible to doctoral candidates from the other hosts within the consortium. |
| **NETWORK WIDE TRAINING** | • Offered by the consortium at specific onsite events (e.g. workshops, summer/winter schools, training weeks, training during the secondments, conferences, review meetings, etc), as well as online and e-learning events (e.g. recording lectures complementing local trainings).<br>• Be very specific about the details - when and where it will take place, what areas will be covered, how long will it last, who will deliver the training.<br>• You can include extra tables to give an overview of all the trainings. |

**Open up some events to the wider research community**. It is common to hold a final conference for example or to reserve some spots at summer schools open for doctoral candidates who are not part of the network – a fee can be charged to cover the cost if necessary. Good practice is to web stream events where applicable/feasible.

- Have in mind that trainings are a good way to stimulate and enhance engagement between doctoral students and different actors involved in the project.
- Highlight the role of the training through secondments and clearly explain its added and complementary value.

- Earning a certain number of ECTS Credits (European Credit Transfer System) via local and network-wide training is becoming the norm – especially for Joint Doctorates.
- Have in mind that the complementarity between local and network-wide training and the specific needs of the doctoral candidate should be indicated in the compulsory **Career Development Plan**[7] which should be prepared with each recruited researcher at the start of their project and be reviewed every six months.
- You can indicate a percentage in time to show a weighting given to a training element.
- Make sure the training activities schedule is appropriate, considering the research tasks schedule and the recruitment calendar.
- Virtual mobility/training does not have the same impact, but bear in mind that it can complement physical interaction and facilitate long-distance collaboration. You are encouraged to explore e-infrastructure and related services (for example GEANT, the pan-European research and education network).

**Table 1 Main Network-Wide Training Events, Conferences and Contribution of Beneficiaries**

| | Main Training Events & Conferences | ECTS[8] (*if any*) | Lead Institution | Action Month (*estimated*) |
|---|---|---|---|---|
| 1 | When and where it will take place, what areas will be covered, how long will it last, who will deliver the training. | If no ECTS are applied, you can give a weighting in the form of a percentage of time or a number of hours. Have in mind that there should be a balance across the consortium | Main organiser | Month of the project, not calendar month |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |

[7] EURAXESS Career Development tools can serve as an inspiration.
[8] ECTS: European Credit Transfer and Accumulation System. http://ec.europa.eu/education/ects/users-guide/docs/ects-users-guide_en.pdf.

**STRENGTHS – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS**

- The main topics of the network-wide training courses are complementing the content of the programmes offered locally at the participating organisations in a logical way.
- Non-academic partners play a very meaningful role in the training through secondments, allowing them to feed into the research design and offer intersectoral work experience, which is convincingly described.
- The transfer of knowledge is credible because the DCs precisely specify the acquired skills and knowledge which will be crucial to reach the proposal aims.
- The proposed training program is credibly outlined, comprehensive, well-structured, and of high quality, relying on a combination of local training, many international secondments, and network events to promote interdisciplinary knowledge and technical skills. The career of the Doctoral Candidates (DCs) will be further consolidated by exposure to training on transferable skills like scientific writing, project management, IP, and innovation, that are in demand in the industrial [life sciences] sector. The training program correctly includes industrial secondments which will promote intersectoral mobility of the doctoral candidates.
- Training in transferable skills is appropriately emphasized with well-planned courses and workshops as part of the induction and summer schools.
- Secondments are well planned to ensure both types of mobility, international and inter-sectoral. Host, supervisor, timing, length and purpose for each secondment are indicated.
- Elements of intersectoral aspects are integrally involved in training. The role and contribution of the non-academic participants are well discussed with relevant activities in the training modules.
- A Career Development Committee is envisaged to ensure that the training programme addresses patient needs, enhance core and additional research skills and deliver transferable skills.

**WEAKNESSES – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS**

- The distinction between what training will be made available locally versus at the network-wide training events is not made sufficiently clear. The development of tailored training for individual DCs is not fully discussed.
- The proposal doesn't demonstrate how the proposed activities complement and integrate with those offered locally at the participating organisations, to create a cohesive and synergistic educational environment; the training content is not clearly aligned with research topics and some training activities are not sufficiently well-described.
- Some of the secondments are relatively short (only one month) and it is not fully plausible that they will be meaningful for the recruited researchers.
- The local training is not clearly described in a way to show clear benefits to the research project and to the doctoral programmes for each doctoral candidate. There is a great discrepancy in quality of local and network-wide training.
- The programme provides training for non-research transferable skills mainly through a selection from the coordinator's existing database of short courses and does not sufficiently consider the contribution of other consortium partners.
- The effectiveness of the organization of weekly online meetings between all Doctoral Candidates (DC) as an efficient training foundation is not convincingly justified.

**1.4 Quality of the supervision** (including mandatory joint supervision for industrial and joint doctorate projects)

Required sub-headings:

- Qualifications and supervision experience of supervisors (and co-supervisors, if applicable). Please explain how the proposed supervisors are sufficiently experienced in supervising research, and have the time, knowledge, experience, and specific expertise for the envisaged individual research project they would supervise.

- Demonstrate, with hard evidence, the qualification of the research supervisors in terms of training/supervision of researchers, and appropriateness of their profiles regarding the training and research objectives of the project.
- You probably do not have enough space to write one paragraph per participating supervisor. Instead write a collective statement about the expertise of the consortium as a whole. Do not leave out the associated partners (secondment mentors and co-mentors).
- Demonstrate the complementarity between the supervisors (e.g., sector, expertise, techniques, equipment, supervision experience).
- You can plan measures for the less experimented supervisors (e.g., mentoring between supervisors).
- Include number of PhDs graduated, number of postdocs mentored by each supervisor. If you have enough space, you can provide a table to structure the information on supervisors (name, organisation, expertise and publication, experience and leadership roles) and to indicate the number of doctoral candidates who will be supervised.
- In section 8 of Part B-2 – description of the participating organisations – you can provide more details to show the research excellence of the supervisors (grants, awards, editorial board membership, important journal articles/conference papers/ monographs, etc.).

- Quality of supervision for DN. Please explain how well the supervision of the DCs is organized, how it provides for progress and review procedures, feedback mechanisms, and appropriate support for the DCs.

- Please explain how the supervision of the doctoral candidates is organised, how it provides for progress and review procedures, feedback mechanisms, and appropriate support for the doctoral candidates.
- Quality of supervision should include integration of researchers, research support, career development, mentoring and well-being of researchers, communication, and conflict resolution.
- Explain practical arrangements for supervision. The aim is to demonstrate that each doctoral candidate is assured high levels of contact with their supervisor(s) through a supervision policy that is consistent across the consortium (particularly for Joint Doctorates).
- The role of the Supervisory Board (SB) includes ensuring that a Personal Career Development Plan (PCDP) for research and training is put in place for each doctoral candidate and reviewed at regular intervals. Remember that PCDP should be reviewed every six months. The role and composition of the SB must be described in Section 6 (Supervisory board). The SB is the decision-making body of the project, coordinating the overall project (network wide training, research) and in particular supervision activities in line with the MSCA Guidelines on Supervision.
- It is good practice that a doctoral candidate has a supervisory team or PhD committee consisting of 3 supervisors: one from each sector (academic and non-academic) and from Associated Partners (secondment). Clearly explain the roles of each co-supervisor and their complementarity.
- Be concrete. Describe a regular series of meetings between the doctoral candidates and the supervision team – you can also mention an open-door policy (e.g., free access to the supervisor, encouraging open communication, two-way feedback, etc).

- Foresee feedback mechanisms and review procedures to monitor the progress of each doctoral researcher (e.g. monitoring and updating Personal Career Development Plans). Focus on timings and structures here (day to day supervision and communication with the doctoral candidate, meetings of PhD theses committee, evaluation of the doctoral candidate's progress for the internal reports, etc.).
- A good practice is to have an evaluation and satisfactory survey completed by the doctoral candidates at the end of each training session.

- Quality of the mandatory joint supervision arrangements (for DN-ID and DN-JD).

- Joint supervision is recommended for the regular DN, but **mandatory** for Joint and Industrial Doctorates (DN-JD and DN-ID).
- In addition to the points above under the previous sub-heading, applicants should also address the arrangements for joint supervision of the doctoral candidates.

⚠ *To avoid duplication, the role and scientific profile of the supervisors should only be listed in the "Participating Organisations" tables (see section 8 below).*

⚠ *The following section of the European Charter for Researchers refers specifically to supervision:*

**Supervision**

Employers and/or funders should ensure that a person is clearly identified to whom researchers can refer for the performance of their professional duties, and should inform the researchers accordingly.

Such arrangements should clearly define that the proposed supervisors are sufficiently expert in supervising research, have the time, knowledge, experience, expertise and commitment to be able to offer the research doctoral candidate appropriate support and provide for the necessary progress and review procedures, as well as the necessary feedback mechanisms.

⚠ ***Supervision*** *is one of the crucial elements of successful research. Guiding, supporting, directing, advising and mentoring are key factors for a researcher to pursue his/her career path. In this context, all MSCA-funded projects are encouraged to follow the recommendations outlined in the Guidelines for MSCA supervision*[9].

#§REL-EVA-RE§#

[9] While the Guidelines for MSCA supervision are non-binding, funded projects are strongly encouraged to take them into account.

**STRENGTHS – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS**

- Measures are in place to ensure appropriate support and review procedures, as well as the necessary feedback mechanisms. The plan to brief all supervisors on the Guidelines for MSCA supervision at the beginning of the project ensures a consistent approach and quality among all partners.
- Supervision arrangements are overall appropriate to support DCs and provide progress and review procedures. Beneficiaries not entitled to award PhDs will be supported with a co-supervision and partnership with universities. DCs will maintain regular contact with supervisors through regular visits, additional to secondments, to monitor and discuss their progress.
- The quality of the proposed supervision measures is very high. The joint supervision arrangements are convincingly described, with biweekly formal meetings involving the two supervisors. Furthermore, supervision training and common good practices will be addressed at the kick-off meeting.
- The supervisors demonstrate an exceptional level of supervision experience, skills and qualification to undertake the project. Additionally, some of them show significant experience in managing EU-funded projects and working in international collaboration. The organization of supervision is very carefully presented and of high quality. The proposal clearly details the respective role of each co-supervisor and the inputs of the non-academic sector to the supervision. The proposed supervision strategy is very effective to train each doctoral candidate (DC) in various research environments. The technical and administrative supports for each DC are clearly articulated, their progress monitoring and feedback mechanisms, as well as solutions to resolve potential conflicts and problems, are well-thought and convincing.
- Both academic and non-academic supervisors have very good track records in their relevant research field as well as extensive experience in training and mentoring graduate students. The supervision plan is very well articulated and the co-supervision scheme for each DC is well structured, with one supervisor at the host institution with a research trajectory directly linked to the scientific project and the other bringing relevant and complementary scientific and transversal expertise.
- The supervisory team comprises recognised field leaders with robust mentorship capabilities supported by their excellent track records. It is credible that they all have sufficient to very high experience in supervising at the doctoral level. The supervision of the doctoral candidates is very well organised, where each DC is co-supervised by a supervisory board consisting of at least three members. Furthermore, the progress and review procedures, as well as feedback mechanisms, are highly appropriate, headed by a supervision control board. Overall, each DC will receive very comprehensive support.
- In addition to the Thesis Board, the Supervision Agreement and Career Development Plans provide useful guidance to students. Also, the inclusion of a mentor outside of the supervisory team provides additional support to doctoral students.

**WEAKNESSES – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS**

- Given the high complexity of the activity and the planned co-supervision, the proposed review, evaluation procedures, project reports to relevant boards, feedback mechanisms and means of working among the advisory team are insufficiently detailed.
- Although most of the supervisors are experienced, it is not sufficiently clear whether all DCs will be mentored to the same level of quality by each of the proposed co-supervisor pairs.
- The proposal does not sufficiently explain which structures (meetings, internal reports) will be adopted by the supervisors to follow the progress of the DCs towards scientific and training goals.
- Supervision arrangements and division of responsibilities between the main- and co-supervisors are insufficiently detailed.
- Some aspects of the joint supervision are not detailed. For instance, the progress monitoring aspect and the time commitment of supervisors, are not sufficiently elaborated.

## 2. Impact #@IMP-ACT-IA@#

***Impact – aspects to be taken into account.***

- Contribution to structuring doctoral training at the European level and to strengthening European innovation capacity, including the potential for:
  a) meaningful contribution of the non-academic sector to the doctoral training, as appropriate to the implementation mode and research field
  b) developing sustainable elements of doctoral programmes.
- Credibility of the measures to enhance the career perspectives and employability of researchers and contribution to their skills development.
- 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 magnitude and importance of the project's contribution to the expected scientific, societal and economic impacts.

### 2.1 Contribution to structuring doctoral training at the European level and to strengthening European innovation capacity, including the potential for:

- Show how your Doctoral Network is better positioned than existing doctoral programmes and can serve as role model for future doctoral programmes
- Stress the advancements in comparison to existing programmes
- What will be the impact of your Doctoral Network on the European Research Area? Will it reinforce Europe's pole position or close the gap e.g. to North America or Asia?

a) meaningful contribution of the non-academic sector to the doctoral training, as appropriate to the implementation mode and research field, this could include (non exhaustively) e.g. meaningful exposure of Doctoral Candidates to the non-academic sector through secondments, contribution of the non-academic sector to the research activities, contribution of the non-academic sector to the network-wide training.

- Demonstrate how the exposure of all the fellows to the non-academic sector is meaningful, i.e., it has adequate duration and content to ensure:
  - the employability of the trained fellows in the non-academic sector
  - excellence and impact of the research training (local and the network wide training, including transferable skills),
  - complementary supervision,
  - hosting secondments (specific training),
  - networking opportunities, etc.

- Explain how the contribution of your non-academic sector participants to this particular programme is essential for enhancing inter-sectoral collaboration in research training in this field and consequently improving European innovation capacity.
- Provide precise details of the role of the non-academic beneficiaries and associated partners in the recruiting (in the case of non-academic beneficiaries only), training (local and the network wide training), and the hosting of secondments (specific training).
- Besides industry, non-academic partners can be an NGO, a charity organisation, a hospital, or any other organisation that satisfies the definition of the non-academic sector.
- It can be very helpful to use a table to list the role of each non-academic participant – this makes the details clear and easy to follow.

- Give specific examples of future non-academic career opportunities for doctoral candidates, e.g. industry (e.g., R&D, data science, product development), public sector (e.g., policy advisory, regulatory affairs, research programme manager), NGOs and international organisations (e.g., project management, expert evaluator, policy analyst), science communication, entrepreneurship (technology transfer, innovation strategist) etc.

b) Developing sustainable (= lasting) elements of doctoral programmes after the end of the DN funding.

This could include, for example training programmes open to doctoral students outside the consortium, or training courses that would still be available and running after the end of the project; long lasting collaboration and secondment opportunities with consortium partners continuing to publish together, complementing their research work and exchanging research visit and doctoral students after the end of the project.

- Describe the sustainability of the training programmes and cooperation. For example, will you:
  - Develop online lectures, toolkits and materials that can be beneficial for future PhD students? Or made available to PhD students outside the network?
  - Have regular workshops/meetings with your consortium partners and/or exchange students or researchers after the project's lifetime?
  - Seek to sustain the collaboration through targeting other funding opportunities?

  In answering this section, consider also the suggestions given in the sub-heading instructions.
- For DN-JD proposals, explain how you will continue the joint degree process in the consortium after the JD project is finished. What are the possibilities for new collaboration projects or further funding opportunities after the project?
- Interdisciplinarity, intersectorality and research diversity in your programme will further promote the European Innovation capacity, including the benefits from industry partners.
- Have in mind the possible synergies with other programmes (for example Erasmus +, EIT) including at regional and national level. More information is available in documents Synergies between the Marie Skłodowska-Curie Actions and Erasmus+ in the area of higher education and Synergies between the Marie Skłodowska-Curie actions and the European Institute of Innovation and Technology.

| STRENGTHS – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS |
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| • The proposed structure of double doctorates in topics of cutting-edge research, with the exposure to varied expertise required to reach a common goal, contributes significantly to the strength of this proposal in terms of its impact in structuring doctoral training at the European level.<br>• The structuring effect on doctoral training at the European level beyond the immediate scope and duration of the proposal is well addressed by considering sustainable elements such as continuing cooperation and consistency of certain training practices.<br>• The contribution of the non-academic sector is relevant and commendable, providing the DCs with exposure to various tangible aspects of the industrial landscape. This includes valuable experiences in entrepreneurship and the development of startups, which are crucial for fostering a practical understanding of the industry. This hands-on approach will greatly enhance the DCs' understanding and readiness to navigate real-world challenges in their respective fields.<br>• The proposal convincingly demonstrates that the networks formed and the cooperation developed during the project will continue long after the end of the project and will apply their combined expertise to find subsequent funding possibilities. It is also envisaged that the educational packages produced during the project will be made available for future, post-project use online. Moreover, the workshops and courses will also be open to other PhD programmes at host institutions or local regions. This is a very good practice. |

- The doctoral training is very well suited to prepare both academic and professional figures strongly requested by the sector.
- The involvement of all partners (academic and non-academic) is convincingly described, which boosts the credibility of the proposed contribution in terms of innovative capacity. The non-academic sector contributes considerably to the doctoral/research training and can significantly benefit from the successful results of the project.
- The project contributes to the structuring of doctoral training as demonstrated by defining best practices, easy transferability of credits, curriculum development, setting of reproducible training standards and supervision standards as presented in Double Doctorate Degree Agreements.
- The training activities will result in online material (lecture notes, online courses) that will be beneficial to the community in the longer term, both at the scientific level and on the topic of gender and diversity in science through contributions of the social-science partners.
- There is a sound contribution of the non-academic partners to the proposal with an effective integration in the proposed scientific and training activities. The proposal outlines specific contributions from non-academic partners, including mentorship, training activities, and hosting secondments, which significantly enrich the overall training experience for doctoral candidates.
- The impact of the secondments and potential non-academic supervision is realistically foreseen and very well outlined in the proposal. By fostering partnerships and establishing frameworks for continuous collaboration, the project ensures that the impact of the training and research activities will endure, shaping the doctoral training landscape in Europe. Moreover, the plans to uphold elements of the doctoral program, such as lasting collaboration, secondment opportunities, joint publications, and grant applications as a consortium are of the highest quality.
- Sustainability beyond the life of the project will be supported by the strong contacts, networks and joint research and results engendered by the cross-sectoral collaboration as well as by providing a solid foundation for longer-term training and PhD programmes.

**WEAKNESSES – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS**

- It is not fully convincing how the proposed training programme will significantly improve existing educational and training programmes
- The proposal's focus on industry is limited, with low potential to bridge the gap between academia and well-known companies in the field.
- The impact of the non-academic secondments on developing synergies and required sustainable knowledge and skills is not sufficiently justified considering their duration.
- The contribution to strengthening European innovation capacity is not adequately described. The proposal does not clearly identify how effective interactions and exchanges with the wider sector, policy makers and other relevant stakeholders are foreseen.
- The contribution of the proposal to structuring European doctoral training is insufficiently described. For instance, activities to formally develop training elements and make them available at the European level are not sufficiently foreseen in the proposal.
- The plan of action of the non-academic sector in the training program is only vaguely described. A general introduction of the private companies is presented, however information on their research and training contribution to the project is not adequately provided.
- After the end of the DN funding, it is not convincingly explained how the proposed network will sustain elements of the doctoral program. Insufficient practical measures are proposed at local or network-wide level.
- While the scientific topic of the proposal is expected to be a long-lasting activity with the potential to provide durable elements of doctoral programmes beyond the proposed timeframe, specific measures supporting sustainability are insufficiently detailed. For instance, it is not clearly elaborated how the collaboration on training between the beneficiaries will continue, and if the proposed schools will be continued after the end of the programme. This is a shortcoming

## 2.2 Credibility of the measures to enhance the career perspectives and employability of researchers and contribution to their skills development

In this section, please explain the impact of the research and training on the fellows' careers prospects. Explain how the project and the training will equip DCs with a combination of technical and transferable skills that will improve their employability in academia and/or the industry. Explain the specific measures taken by the project to enhance the career perspectives of the DCs, i.e. to support them in exploring a wide range of career options in terms of topics, disciplines, professional environments or sectors.

- Describe the concrete actions implemented by the project to improve the career prospects of the doctoral candidates, specifically how it supports them in exploring diverse career paths across various topics, disciplines, professional settings, or sectors.
- Describe the potential employment sectors that the doctoral candidates could end up working in. Consider both academic and non-academic career opportunities, both R&I and management positions, including profit/non-profit organizations, think tanks, and policymaking agencies. What are the relevant current and future labour market needs which the DN can contribute to?
- Present an analysis of how the different elements of the research and training programme will boost the employability of the doctoral candidates, e.g. through:
  - research training
  - transferable skills training
  - secondments and/or other opportunities for exposure to other organisations (e.g., networking opportunities)
  - communication/dissemination/public engagement/exploitation activities.
- Focus on the impact of the skills on the doctoral candidates' employability, and do not repeat how these skills will be delivered (already stated in the description of the training programme).
- Explain the impact of the research and training on the fellows' short-medium and long-term **career perspectives.**
- Make a strong link between your programme's elements, the EU policies about researcher careers/employability, and any sectoral policies referring to a skill gap in the relevant sector.

| STRENGTHS – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS |
|---|
| • The impact of the research and training on the doctoral candidates' careers is very good and clearly identified. Researchers will be provided with skills in responsible research ethics, practical engineering experience and innovation through industrial partners, and teaching skills.<br>• Actions such as training on CV writing and job interviews and the use of Talent Development Suite created within the EURAXESS project will enhance DCs career perspectives and employability.<br>• The organisation of two job fairs is an original and effective measure contributing significantly to the employability of the doctoral candidates.<br>• The proposed measures will evidently enhance the researcher's future employability. A dedicated career workshop scheduled during the final year will help doctoral candidates start their professional careers.<br>• The proposal credibly explains how the project and training will improve the employability of the researchers in both the academic and non-academic sectors. The training will equip the researchers with problem-solving skills that are transferable to various fields beyond their specialization, which will significantly contribute to their employability and career paths.<br>• The strategy to enhance the doctoral candidates' career prospects by attending conferences, meetings, and seminars, both local and international, will expose the doctoral candidates to future recruiters from academic, industry, and commercial sectors.<br>• The acquired multidisciplinary skills will allow the DCs to contribute to other fields of innovative precision medicine, in the private sector, in the academic field or in regulatory affairs. Pointing |

the doctoral candidates to the Marie Curie Alumni Association is a good way to expand even further the horizons of the doctoral candidates, both science-wise and career-wise.

**WEAKNESSES – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS**

- There is no detailed strategy for improving development and career perspectives. The enhancement of career perspectives of researchers is limited to a list of general skills acquired in the doctoral programme.
- While recapitulating qualities of the doctoral training, the proposal does not explicitly address how exactly these qualities will translate into better career prospects and employment opportunities.
- The proposal does not convincingly elaborate on the impact of the research on the fellows' career prospects and does not fully and credibly justify their potential employability, which is a shortcoming.
- The added value for the doctoral candidates' career development is not appropriately described. The potential impact of the project on the career perspectives of DCs is explained in general terms, without specific details on scientific competencies and potential researcher profile that will be developed on an individual basis.
- Despite the convincing contribution of the project to the improvement of transferable and non-academic skills of the doctoral candidates, very little emphasis is given to improving their methodological skills.

### 2.3 Suitability and quality of the measures to maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities

Required sub-headings:

- Plan for the dissemination and exploitation activities, including communication activities:

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'. This plan should describe the dissemination, exploitation and communication measures, the target group(s) addressed (e.g. scientific community, end users, financial actors, public at large), with objectives, how these activities and the fulfilment of these objectives will be monitored, with appropriate indicators.

⚠ *Regarding communication measures and public engagement strategy, 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 effectively 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.*

⚠ *In case your proposal is selected for funding, a more detailed plan will need to be provided as a mandatory project deliverable submitted at mid-term stage with an update towards the end of the project.*

- **Dissemination** is sharing research results with potential users - peers in the research field, industry, other commercial players and policy makers.
- Before writing, discuss with all beneficiaries about their own dissemination and exploitation channels/mechanisms.

- Describe in detail the activities you will organise and participate in at a consortium level to disseminate the research results to the relevant audiences.
- Indicate which conferences the doctoral candidates will attend or organise, present at, and how often.
- State which specialist journals will be targeted for the publication of the consortium's results and how many articles each doctoral candidate will aim to produce. Be realistic.
- Describe activities targeted to other potential users, e.g., attending trade shows to engage with industry, organising workshops for clinicians in healthcare-related projects, workshops for NGOs, etc.
- Include indicators/targets for monitoring the dissemination activities.
- Remember that this is the **Impact** section.
    - Describe the potential impact of disseminating to these audiences – it might be a different impact for each audience type.
    - Keep in mind that dissemination and communication activities will also have an impact on the development of doctoral candidates' dissemination and presentation skills.
- **Exploitation** is using results for commercial/ further research/ education/ standardisation purposes or in public policy making. There is a close link between dissemination and exploitation. Dissemination feeds into exploitation, and exploitation is connected with the management of intellectual property.
- Depending on the type and field of research, some exploitation methods are:

| | |
|---|---|
| **Further research** | The results coming out of the project can be applied to further research in the field and beyond. |
| **Collaborative research** | The results can be used for building/contributing to collaborative research projects. |
| **Product development** | Results can be used for developing or contributing to a product, process, technique, design, etc. |
| **Education** | Results are integrated into education curricula on Bachelor, Master or Doctoral level. |
| **Standardisation activities** | Results could be used to develop new standardization activities or contribute to ongoing work. |
| **Spin-offs** | A separate company will or could be established as a result of the research results. |
| **Engagement with communities/end users/policy makers** | Describe the activities to ensure that relevant societal actors will benefit from your project. For example, results will be used in policy briefings to impact on policy. |

- Where relevant, remember that the results can and should be widely disseminated AFTER intellectual property (IP) protection has taken place, where necessary.
- Mention, if relevant, applicability and commercialisation of the research results (e.g., new product/service, new techniques/methods) and possible patents.
- If not applicable directly, indicate the likelihood of how your results may be applicable in the long-term (basic or fundamental research is seldom applicable immediately).
- Show that you understand the potential barriers to exploitation of your results. Just briefly describe the main ones and how will you tackle them. You can provide a more detailed description within the plan for the dissemination, exploitation and communication (which is a mandatory deliverable if the network is funded).
    - Possible obstacles may include inadequate financing, skills shortages, IPR issues, regulation that hinders innovation, mismatch between market needs and the solution, etc.

- Remember that this is the **Impact** section. Describe the potential impact of exploiting the research results.
- If the results are useful to policymakers/the wider society:

- Outline what activities you will engage in to ensure that relevant policymakers/societal actors (community or voluntary sector) etc. will be informed about the research results. E.g., could you organise a special workshop or information event? For health-related projects, it is advisable to include patient groups in your plans.
- Some examples are provided in the EC publication Sharing scientific evidence with policymakers: A starter kit for EU funded research & innovation (R&I) projects

For additional support in dissemination and exploitation activities, use services by the EC:

- **Open Research Europe** for rapid and transparent publishing.
- **Horizon Results Platform** a repository for results of EU-funded research and innovation projects.
- **Booster** support services to boost the exploitation potential of your research results.
- **Innovation Radar** to identify high potential innovations.
- **HS Booster** – standardisation support for research and innovation projects (Horizon 2020, Horizon Europe and Digital Europe projects)[10].

- **Communication** and public engagement activities aim to raise citizens' awareness of the challenges addressed by the project, and to show the impact of your research on citizens' daily lives.
- Communication is one-way from sender to receiver, e.g., an article in a newspaper, or on TV, radio, or via social media.
- Describe the activities which the consortium will perform to ensure media coverage about the programme and its results, e.g., press releases to newspapers, feature articles in magazines, articles on social media. Is there any potential to have the programme featured on local/national TV or radio in any of the countries in the consortium?
- Explain who will help you to maximise media coverage, e.g., Communications or Marketing Office/Officer.
- Remember that this is the **Impact** section.
  - Describe the potential impact of media coverage of the project's activities.
  - Have in mind that activities may also have an impact on the development of doctoral candidate's communication and presentation skills.

- **Public engagement and Outreach activities** aim to engage a broad audience, via a two-way communication from sender to receiver (and vice versa), and to bring knowledge and expertise on a particular topic to the general public.
- Describe what activities the consortium will perform to engage the general public about the activities of the Doctoral Network. Have in mind that doctoral candidates should be actively involved in public engagement and communication activities.
- Plan a range of face-to-face activities (e.g., school visits, lab open days, public talks, science festivals, European Researchers' Night, Researchers at Schools) targeted at multiple audiences.
- Talk to experts at your institution. See what local/national activities you can join. Activities need to take place across the whole consortium, so ask your consortium participants for information on what activities they have in their organisation/region/country.
- If applicable, explain who will help you with public engagement activities e.g., Education/Outreach/Impact Officer.
- Describe the potential impact of engaging the public in the activities of the programme.
- Communication and public engagement activities concern not only the project results, but your project as a whole and your research area. These activities can take place from the start of the project and continue throughout the project duration.

[10] The **HS Booster** initiative offers expert services to European projects, helping to increase and valorize results by contributing to the creation or revision of standards. It provides practical guidance for assessing project readiness and connecting with standardization experts. Additionally, the HS Booster includes a training academy with a diverse range of courses and online sessions.

- Include quantifiable targets for measuring the effectiveness of dissemination, exploitation, communication and public engagement activities. For this you could use a table as shown below.

| Activity | Target audience | When | Where | Key indicators (KPI) |
|---|---|---|---|---|
| Conference (provide the full name) | List the target audience that will participate at the conference | Estimated month when it will take place (M12, M14) | If known at proposal stage | Number of attendees, etc. |

- Include targets in terms of number of publications per year per doctoral candidate; number of international conferences per year per doctoral candidate, etc., for all deliverables.
- Think about what is realistic for PhD students in your research discipline. Have in mind quality over quantity.
- Don't forget to indicate these activities in related work packages in the Implementation section.

- 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. Please note that although a detailed IP management plan is not expected at this stage, an outline of the strategy for the management of IP is mandatory at the proposal stage.*

⚠ *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, 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.*

- Before submitting your proposal and while forming a consortium you should already carefully consider the anticipated results, ownership issues and the associated intellectual property rights (IPR) to ensure efficient dissemination and exploitation of the outcomes. You should set out these rules within the consortium agreement.
- Having a consortium agreement with a clear set of procedures, IPR management and ownership rights between the consortium members can maximise the exploitation potential of the project's results.
- Good practice is to have an Intellectual Property Committee (beneficiaries and associated partner representatives – especially if the non-academic sector is included) whose role can be to provide internal approval of planned dissemination/exploitation activities, licensing agreements and deciding on IP protection activities.
- Keep in mind the specifics of the MSCA[11] and relevant characteristics that may have an effect on IPR and describe how these will be managed:

[11] For additional information on IPR, you can consult EU IP Helpdesk materials:

- **Intersectoral exchange** (academic/non-academic) requires different IP policies/interest, difference in publication and exploitation;
- **International dimension** EU-MS/AC vs. third countries – different IP laws and regulations;
- **Secondments** focusing on the explanation of complementary competences of the participants (host organisation and secondment host organisation) – granting access to background/results for/by secondees (''visitors'').

- Outline plans to exploit any IP/commercial potential arising from the programme. Briefly describe the role of any Technology Transfer Office or similar in helping you to commercialise the results.
- Comply with the 'MSCA rules' for IP as detailed in the Grant Agreement (Article 16).

Concrete plans for sections 2.3 must be included in the corresponding table 3.1 a Description of Work Packages.

⚠ *Note that the following sections of the European Charter for Researchers refer specifically to public engagement and dissemination:*

**Dissemination, Exploitation of Results** #@COM-DIS-VIS-CDV@#

All researchers should ensure, in compliance with their contractual arrangements, that the results of their research are disseminated and exploited, e.g. communicated, transferred into other research settings or, if appropriate, commercialised. Senior researchers, in particular, are expected to take a lead in ensuring that research is fruitful and that results are either exploited commercially or made accessible to the public (or both) whenever the opportunity arises.

**Public Engagement**

Researchers should ensure that their research activities are made known to society at large in such a way that they can be understood by non-specialists, thereby improving the public's understanding of science. Direct engagement with the public will help researchers to better understand public interest in priorities for science and technology and also the public's concerns.

#§COM-DIS-VIS-CDV§#

⚠ *You can also refer to the Communicating EU research and innovation guidance for project participants as well as to the "communication" section of the Online Manual.*

| STRENGTHS – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS |
|---|
| • The proposal convincingly describes the planned dissemination, exploitation and communication measures. The target groups are clearly identified and the proposal describes in a coherent way the tools that will be used to reach out these target groups. The dissemination strategy encompasses different sets of credible communication channels (publications, conferences, social media, events).<br>• The communication approach to the broader audience is strategically well planned and tailored to the proposal, applying a large set of tools such as a project website, social media, and open days. The proposal's outreach plan shows an intent for direct engagement of the doctoral |

- Your Guide to Intellectual Property Management in Horizon Europe
- IPR FAQ on MSCA
- Recording of EU - Webinar: IP in EU funded projects with a special focus on MSCA (register for free to access).

candidates with the general public through interviews, round-table discussions, and exhibitions at local/national science festivals to demonstrate the proposal's use and benefits for citizens

- The strategy for public engagement has high quality. It makes good use of social media and public events and will include the production of videos for a wide non-technical audience, a measure with the potential to significantly increase impact of the project.
- The proposed dissemination and exploitation plan is pertinent. It is well structured under four groups of objectives, properly identifying key messages, activities, performance indicators and relevant target groups (including academia, industry, policy makers, civil society organisations, students, and general public).
- The proposed dissemination, exploitation, and communication measures for the project are very well described, highly appropriate and of very good quality. These measures have clear objectives, and the target groups are well chosen and highly appropriate. The fulfilment of the objectives will be well monitored by the supervisory board using a number of talks, articles, IPs and actions as indicators. Furthermore, the success of the communication strategy will be analysed by a survey. The consortium has developed a credible intellectual property management approach with clearly defined protocols and options for commercialisation.
- Intellectual property management is very realistically addressed in the proposal. It adequately takes into account the participation of non-EU countries in the proposal.
- Protection measures to enable future exploitation of results are appropriately addressed and convincing. These will be contemplated in the consortium agreement that will be signed at the beginning of the proposed project.
- Exploitation measures are convincing for the industrial and academic sectors tackling the IPR issues well. Details of how the industrial partners will exploit the project outcomes are provided.

**WEAKNESSES – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS**

- There is mention of non-scientific media engagement, but the direct engagement with the public to inform and reach out the society on the benefits of the research for citizens is not very convincing.
- The proposal is unconvincing on how the researchers will be trained to maximise their ability to communicate to a non-expert audience.
- Although possible exploitation routes are outlined, the proposal lacks details related to the expected resources, coordination mechanisms of individual organisations, and level of involvement of senior staff in the possible exploitation pathways of the project results.
- Dissemination measures are not innovative and are limited to standard methods (publications, website with blog, twitter).
- A standard range of activities in terms of dissemination and communication activities, targeting a range of correctly identified audiences, is very briefly stated. Although the proposed measures are sound, their specific objectives, description and expected impact are unclear. Furthermore, there is no explanation on how the fulfillment of these objectives will be monitored and with which indicators.
- A clear strategy of exploitation was not adequately organised for the results which refer to guidelines, recommendation and policy inputs. The market potential is not sufficiently described.
- Proposal does not sufficiently elaborate potential for exploitation of the research data obtained, in terms of plans for future protection, concrete collaboration with targeted industry, and possible commercialisation of research findings.
- The dissemination plan is overly ambitious regarding the number of papers to be published given the probable IPR constraints.

## 2.4 The magnitude and importance of the project's contribution to the expected scientific, societal and economic impacts (project's pathways towards impact)

- Have in mind that during the Horizon Europe implementation, the European Commission aims to achieve an impact-driven programme by maximising the effect of research and innovation. To achieve this aim, the EC identified key impact pathways as follows:

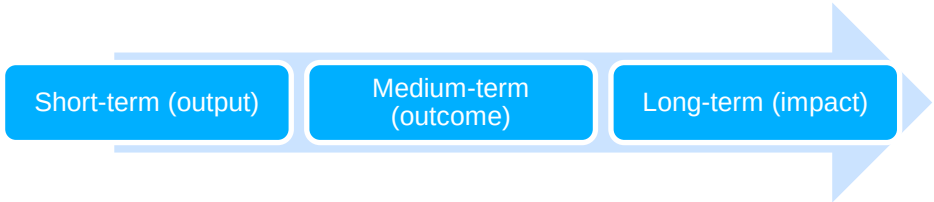
| Key impact pathways | |
|---|---|
| **Scientific impact** | 1. Creating high-quality new knowledge<br>2. Strengthening human capital in research and innovation<br>3. Fostering diffusion of knowledge and open source |
| **Societal impact** | 4. Addressing EU policy priorities and global challenges through research and innovation<br>5. Delivering benefits and impact through research and innovation missions<br>6. Strengthening the uptake of research and innovation in society |
| **Towards technological/ economic impact** | 7. Generating innovation-based growth<br>8. Creating more and better jobs<br>9. Leveraging investment in research and innovation |

- Try to address all applicable aspects of the key pathways. The concept of key pathways to impact should be discussed in relation to the project.

Required sub-headings:

- 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. Please justify and explain how the stated impacts are credible, relevant, and achievable. Expected scientific impacts must always be described. If your project is not expected to have significant economic/technological or societal impacts, please provide a brief justification.

  - Expected scientific impact(s), 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);
  - Expected economic/technological impact(s), e.g. bringing new products, services, business processes to the market, increasing efficiency, decreasing costs, increasing profits, contributing to standards' setting, etc.
  - Expected societal impact(s), e.g. decreasing $CO_2$ emissions, decreasing avoidable mortality, improving policies and decision-making, raising consumer awareness.




| | | | |
|---|---|---|---|
| **High-quality new knowledge** | Number of peer-reviewed scientific publications | Citation index of peer reviewed publications resulting from the Programme | Number and share of peer reviewed publications from projects that are core contribution to scientific fields |
| **Addressing EU-policy priorities** | Number and share of outputs aimed at addressing specific and identified EU policy priorities and global challenges | Number and share of innovations and scientific results | Aggregated effects from use of funded results, including contribution to policy making cycle |
| **Innovation-based growth** | Number of innovative products, processes of methods and IPR applications | Number of innovations including awarded IPRs | Creation, growths and market shares of companies having developed innovations |
| **Example** | Successful demonstration trial with 3 airports of an advanced forecasting system for proactive airport passenger flow management | At least 9 European airports adopt the advanced forecasting system that was demonstrated during the project | 15% increase of maximum passenger capacity in European airports |

Source: Study to support the monitoring and evaluation of the Framework Programme for research and innovation along Key Impact Pathways, EC, DG Research

- Explain how the research programme and the doctoral candidates' research (including dissemination/exploitation/communication/public engagement activities) will contribute to Europe's economy and/or society – not just in terms of the research impact (how does the DN programme and individual projects advance the field) but also in terms of the results of the programme (e.g., a new concept of training, new approach, etc.).
- The scientific impact always has to be described. Depending on your research topic, substantial economic, technological or societal impact might not be applicable. In such a case, please provide a brief explanation.
- If your programme builds on an existing or a previous MSCA ITN/DN, COST Action or another funded project, explain how it does so. Could your research contribute to the development of a new European standard?
- Explain how the research and training programme will help in bringing ideas to market. The role of the participants from the non-academic sector in this respect should be described, in terms of research commercialisation or training in entrepreneurship/tech transfer to the fellows, etc.
- Expand on a link to EU research/policy goals: Green Deal, Horizon Europe Missions, MSCA Green Charter[12], UN Sustainable Development Goals.
- Try to embed your project into those overarching goals – how does it contribute? **On a very small scale is perfectly fine**. For the SDGs, when you find the applicable SDG(s), you can indicate a

[12] For additional information feel free to consult the MSCA-NET Policy Briefs on Missions in HE and the Green Deal.

specific target inside the mentioned goal. For defining SDGs, feel free to use the JRC KnowSDGs Platform which can help you to integrate the SDGs into the Impact section of your proposal.

⚠ *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.*

⚠ *Only include such outcomes and impacts where your project would make a significant and direct contribution. Avoid describing very tenuous links to wider impacts.*

⚠ *Give an indication of the magnitude and importance of the project's contribution to the expected outcomes and impacts, should the project be successful. Provide quantified estimates where possible and meaningful. 'Magnitude' 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; 'Importance' refers to the value of those benefits. For example, number of additional healthy life years; efficiency savings in energy supply.*

- To illustrate the magnitude and importance of the project contribution to outcomes and impacts, you can use a table. For example:

| Expected outcome | Description | Magnitude | Importance | Expected impact |
|---|---|---|---|---|
| | | | | |
| | | | | |

- For each expected outcome, provide quantified indicators for "magnitude" and "importance", where possible and meaningful.
- For each expected outcome, provide quantified indicators. For example, expected revenues from new technologies, size of patient groups that will be affected by a new treatment, number of new jobs/potential projects/ career opportunities for the doctoral candidates that will be created after a successful project, growth in the number of users of emerging technology, etc.

- Remember that in the **MSCA Work programme** (page 24) you can find expected outcomes for the doctoral candidates and participating organisations that are related to the Doctoral Networks projects.

- More examples of expected outcomes and impact is provided in the **HE Programme Guide**.

| STRENGTHS – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS |
|---|
| • Economic impacts are reported with great clarity and fully depict the contribution to technological advancements. The project will result in many useful deliverables and policy recommendations for relevant stakeholders.<br>• The project has good potential for scientific impact, as it is focused on largely unexplored area and will train researchers at interdisciplinary boundaries with exposure to multiple sectors, which will likely enhance their ability to tackle future scientific challenges<br>• The proposal has the potential to deeply impact both academic and policy sectors by providing human capital and expert knowledge in the cutting-edge field of informality and precarity that is of interest to governmental, NGO, business and scientific stakeholders. |

- The interdisciplinary approach, including elements of theory, modeling, software development, and implementation into different applications, has a strong potential to generate significant impact on both science and economy, as discussed by various meaningful examples.
- The economic impact will be important because the relationship between the academic sector and the industrial sector will contribute to the development of technological tools.
- The proposal clearly specifies specific social, technical and economic impacts that are expected, also analyzing the environmental magnitude of the proposal in terms of the European Industry transformation.
- Societal impacts have been thoroughly explained in accordance to UN SDG targets and measurable, relevant and feasible KPIs have been identified.
- The proposal demonstrates well that the outcome of the action would have strong impact beyond the duration of the programme by generating new research questions.

**WEAKNESSES – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS**

- The discussion of the expected economic and societal impacts, and related quantifications, is generic and unconvincing. The links to sustainable development goals and environmental benefits lack clear explanation. The economic impact yield resulting from the positive effects of these enabling technologies is not sufficiently elaborated
- The contribution of the project to the scientific, societal and economic impacts are not sufficiently quantified with KPIs.
- The claimed economic and societal impacts are overstated in the proposal and it is unrealistic to expect their achievement within the timeframe of the action. For example, there is a very long way to practical industrial applications from developing computational prediction methodologies in projects of this size and scope.
- The importance of the project's contribution to the expected scientific, societal and economic impacts are only generally addressed and insufficiently substantiated. For instance, quantified indicators are not clearly outlined.
- The investigated fields are so divergent that the societal and economic impact of the whole proposal is seemingly overestimated.
- The project's prospective influence on policy-drafting is unclear, as the proposal is not explicit enough about communication with policymakers.

***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.
- Quality, capacity and role of each participant, including hosting arrangements and extent to which the consortium as a whole brings together the necessary expertise.

## 3. Quality and Efficiency of the Implementation #@QUA-LIT-QL@# #@WRK-PLA-WP@# #@CON-SOR-CS@# #@PRJ-MGT-PM@#

### 3.1 Quality and effectiveness of the work plan, assessment of risks and appropriateness of the effort assigned to work packages

Required sub-headings:

- Description of Work Packages (please include Table 3.1a);
- Deliverables List *(*please include Table 3.1b);
- Milestones List (please include Table 3.1c);
- DC table (please include Table 3.1d);
- Project Risks (please include Table 3.1e);
- For DN-JD, joint admission, selection, supervision, monitoring and assessment procedures (if not applicable, please remove).

- Admission, selection, supervision, monitoring & assessment should be coherent across the consortium. The same procedures should be applied to each doctoral candidate. Any known variations in practice between network partners should be explained.
  - For example, in terms of monitoring, University A requires a yearly report, and University B requires a quarterly report. Will the doctoral candidate have to do both?
  - For example, in terms of assessment: University A requires a closed viva voce, and University B requires an open thesis defence. For joint/multiple degrees, will the doctoral candidate have to do both?

#§CON-SOR-CS§# #§PRJ-MGT-PM§#

**Table 3.1 a Description of Work Packages**

- Describe the overall structure of your work plan and each Work Package.
- It is usual practice to include 3 or 4 Research WPs.
- Also include non-research Work Packages, e.g.:
  - Management WP
  - Training WP
  - Dissemination/Exploitation/Communication/Public Engagement WP
- The work plan must be coherent and efficient regarding the programme's research and training objectives. It must convince the evaluators that you are able to achieve the objectives set.
- Table to be included in the above sub-heading "Description of Work Packages"
- Describe each Work Package in detail in the table below.

| **WP Number** | WP title | Start month – End month |
|---|---|---|
| **Lead participant** | Lead participant short name | |
| **Participants** | *Please list all participating entities (short names)* | |
| **DCs involved** | | |
| **Objectives** | | |
| **Description of Work and Role of Specific Beneficiaries / Associated partners** *broken down into tasks, indicating lead participant and role of other participating organisations. For each task, clarify which participating organisation and/or DC(s) will do it.*<br>*Deliverables linked to each WP are listed in Table 3.1b (no need to repeat the information here).*<br>Description of Work: Break down each WP into several tasks (3-6 is typical). Here you can provide details on the methodological tasks that were not described in detail in Section 1.2.<br>Task 1.1 | | |

Task 1.2
Task 1.3
Role: Use organisation short names from Participants Table to indicate which organisation(s) is (are) responsible for each task.
Indicate timescales for the tasks (in months elapsed from the start of the project), e.g. M6, M12
Ensure that everything is coherent with the details given elsewhere in your proposal.

**Table 3.1 b Deliverables List**

- Table to be included in the above sub-heading "Deliverables List"

| ***Scientific Deliverables*** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Number**[13] | **Deliverable Title** | **Short description** | **WP No.** | **Lead Beneficiary Short Name** | **Type** [14] | **Dissemination Level** [15] | **Due Date (in months)** |
| D1.1 (<WP number>.<number of deliverable within that WP>) | Keep it short | Be specific and concise. Try not to be redundant with the Deliverable Title. | | Use organisation short names from Participants Table | R, ADM, PDE or OTHER (see footnote) | PU, SEN, CI (see footnote). Note that PU means that once validated by the EC, the deliverable can be published on a freely accessible website. | (in months elapsed from the start of the project) e.g., M6, M12 |
| ***Management, Training, Recruitment[16] and Dissemination Deliverables*** | | | | | | | |
| **Number** | **Deliverable Title** | **Short description** | **WP No.** | **Lead Beneficiary Short Name** | **Type** | **Dissemination Level** | **Due Date (in months)** |
| | | | | | | | |

[13] 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.
[14] Please indicate the nature of the deliverable using one of the following codes **R** = Report; **ADM** = Administrative (website completion, recruitment completion, etc.); **PDE** = dissemination and/or exploitation of results; **OTHER** = Other, including coordination.
Please indicate the dissemination level using one of the following codes: **PU = Public:** fully open, e.g. web; **SEN = Sensitive:** restricted to consortium, other designated entities (as appropriate) and Commission services; Please consider that deliverables marked as "PU" will automatically be published on CORDIS once approved: the applicants should therefore consider the relevance of marking a deliverable as "PU"; **CI = Classified:** classified information as intended in Commission Decision 2001/844/EC.
[16] Including overall recruitment (e.g. advertising vacancies), Researcher Declarations on Conformity, Career Development Plan, training deliverable x, etc. The individual recruitments should only be listed in Table 1.2a.

⚠ *The deliverables should be divided into scientific deliverables and management, training, recruitment and dissemination deliverables. Scientific deliverables have technical/scientific content specific to the action. The number of deliverables in a given Work Package must be reasonable and commensurate with the Work Package content. Note that during implementation, the submission of these deliverables to the REA will be a contractual obligation.*

⚠ *Note that, if the proposal is successful, several mandatory deliverables will be added during the Grant Agreement preparation such as the establishment of a supervisory board of the network, due at month 2; the progress report, due at month 13; the career development plan etc. (full list in the MSCA Work Programme – Definitions section, paragraph 1.6).*

⚠ ***Due date:*** *The schedule should indicate the* ***number of months*** *elapsed from the start of the action (Month 1).*

- Keep the number of deliverables to a minimum.
- Remember that you must actually deliver each deliverable at the fixed due date if the project is funded and implemented, and too many deliverables will make your administrative workload very high.
- Deliverables are submitted to the REA Project Officer in PDF format, so ensure that it will be feasible to present your deliverables in this way.
- Deliverables must be relevant and well distributed during the lifetime of the project.

- Keep in mind that the MSCA Work programme lists mandatory deliverables for Doctoral Networks that will have to be submitted for projects selected for funding:
  - **establishment of a supervisory board** of the network;
  - **progress report** submitted within 30 days after one year from the starting date of the action (Month 13);
  - **mid-term meeting** organised between the participants and the REA (granting authority);
  - **mobility declaration** submitted within 20 days after the recruitment of each researcher and updated (if needed) via the Funding & Tenders Portal Continuous Reporting tool;
  - **career development plan (CDP)**: a document describing how the individual Career Development Plans have been established (listing also the researchers for whom such plans have been put in place), submitted before the mid-term meeting;
  - **evaluation questionnaire** completed by each recruited researcher and submitted at the end of the research training activity; a follow-up questionnaire submitted two years later;
  - **data management plan (DMP)** submitted at mid-term and an update towards the end of the project if needed;
  - **plan for the dissemination and exploitation of results, including communication activities**, submitted at mid-term and an update towards the end of the project.

Among those mandatory deliverables, include only the following in your deliverables list:
- Supervisory Board of the network (M2)
- Career Development Plan (M13)
- Data Management Plan
- Plan for the dissemination and exploitation of results including communication activities

**Table 3.1 c Milestones List**

- Table to be included in the above sub-heading “Milestones List”

| Number | Title | Related Work Package(s) | Lead Beneficiary | Due Date [17] | Means of Verification[18] |
|---|---|---|---|---|---|
| MS<Number> | Specific but concise | One milestone can relate to one or several WP | Use organisation short names from Participants Table | (in months elapsed from the start of the project) e.g., M6, M12 | Be concrete and use clear indicators |

- Milestones are major checkpoints for measuring progress, e.g., all doctoral candidates recruited, completion of the training programme, organisation of a conference.
- Also, there must be some research milestones – major points in the work which need to be reached before further progress can be made.
- Tip: You should have more deliverables than milestones. Six or eight milestones covering major achievements in the lifetime of the project are sufficient. The proposal should be checked for consistency throughout.
- Do not forget the milestones linked to the DC recruitment (e.g., launch of recruitment process, enrolment of the DC in a doctoral programme, etc.) and to management (e.g. kick-off meeting, Consortium Agreement, mid-term check, etc.).
- Milestones must be relevant and well distributed during the lifetime of the project.

### Table 3.1 d DC Table

- Table to be included in the above sub-heading “DC Table”

| DC No. | Recruiting Participant (short name) | PhD awarding entities (short name) | Planned Start Month | Duration (months) 3-36 (up to 48 for DN-JD) | Total duration of secondments (months) * | Total duration in non-academic sector (months) |
|---|---|---|---|---|---|---|
| **1.** | Use organisation short names from Participants Table | Use organisation short names from Participants Table; Can be different from the Recruiting Participant | (in months elapsed from the start of the project) e.g., M3, M6 | | | |
| **2.** | | | | | | |
| **3.** | | | | | | |
| **…** | | | | | | |
| **Total** | | | | | | |

[17] Measured in months from the action start date (month 1).
[18] Show how the consortium will confirm that the milestone has been attained. Refer to indicators if appropriate. For example: a laboratory prototype completed and running flawlessly; software released and validated by a user group; field survey complete and data quality validated.

If a Doctoral Candidate is recruited by more than one beneficiary, please indicate this in the table accordingly.
*Note that for Standard DNs, the total duration of secondments is limited to 1/3 of the total DC fellowship duration.
**Please ensure that the total number of person months in this table is consistent with the total number of person months from the budget table in part A.**

- Have in mind that some countries/institutions have fixed recruitment dates for doctoral candidates, and this should be taken into account when planning the start dates and project activities.

### Table 3.1 e Project Risks #@RSK-MGT-RM@#

- Table to be included in the above sub-heading "Project Risks"

Please list the critical managerial, scientific and technical risks, relating to project implementation and detail the risk mitigation measures. Please include dealing with scientific misconduct as one of the critical risks for research. Please also refer to any important methodological challenges you may have identified and how you intend to overcome them.

- Highlight any foreseen challenges in the methodology and how these will be overcome.
- Include a list incorporating research risks and project management risks. Describe practical mitigation and contingency plans for both.
- For each identified risk, specify the level of likelihood (probability that the risk occurs even with the implementation of mitigation measures) and the level of severity (seriousness/impact of the risk on the overall project).
- Make sure that no risk endangers the whole project.
- Some potential management risks: partners leaving the consortium, supervisor leaving the consortium, resignation of a recruited researcher, issues implementing the individual projects, failure of recruitment, not possible to implement secondment, IPR disputes, some doctoral candidates participating in multiple work packages, implying the risk of a high workload, etc.
- Strategy for dealing with scientific misconduct. What would you do if a doctoral candidate accused another of falsification, fabrication or plagiarism? What processes are in place in the participants to deal with misconduct? Do the partners apply their own code of conduct? State that the consortium will abide by the European Code of Conduct for Research Integrity.

| Description of risk | Likelihood (Low/Medium/High) | Severity (Low/Medium/High) | Work package(s) involved | Proposed risk-mitigation measures |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

***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.*

#§RSK-MGT-RM§#

| STRENGTHS – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS |
|---|
| • The work plan is logically and coherently structured to ensure a very good balance between research and training. The goals for the project of each doctoral candidate are explained in appropriate detail. The allocation of tasks is adequate.<br>• The work plan is very well structured and aligns fully with the research objectives. Responsibilities and work allocations are well thought and credible, the work packages are clearly presented. They are designed to be complementary and independent, significantly minimising risks to research progress by limiting interdependencies between different DCs. This structure ensures that each project's advancement is not overly reliant on others, fostering a more resilient and efficient research environment. Meaningful and timely scientific management, training, and dissemination of deliverables and milestones have been identified, making the project progress assessment possible. Administrative, management and scientific misconduct-related risk assessments are effective, and appropriate contingency plans are established to address potential issues in a reliable manner.<br>• The work plan is detailed, coherent, and structured around the relevant work packages. Deliverables list and specified due dates are most appropriate. The allocation of tasks and resources is fully in line with the research objectives. The individual research projects are well detailed and integrated into the relevant work packages. Fellows' secondments are relevant and aligned with individual research objectives.<br>• The work plan is coherent and is in line with the research objectives. The structure, with three WPs for management, dissemination and training respectively and three WPs for the scientific doctoral work, is credible.<br>• The milestones and deliverables are well described and major deliverables are appropriately designed to serve as performance indicators to facilitate assessment of progress.<br>• The tasks and resources are appropriately distributed among the partners according to their expertise and infrastructure. The efforts for the WPs are reasonable for the proper implementation of the proposal.<br>• Research progress monitoring will be regularly carried out and used to support or adjust project goals and actions. Specifically, DCs' activities will be monitored through meetings between the researchers and the supervisors on a monthly basis.<br>• Gender aspects are implemented well at all project levels (recruitment, management, training activities, dissemination, consortium members...). Specific promotion actions are considered to reach the targeted gender balance. |

| WEAKNESSES – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS |
|---|
| • Work packages are mutually unrelated, the partners' expertise and work are limited to individual work packages, which limits their collaboration and results integration.<br>• The proposed work plan is not convincingly effective and coherent with the proposal's objectives. Some WPs' objectives are not clearly stated, some are repeated or insufficiently described, for example, training activities are described in a dedicated WP but without a clear duration. It is not clear how the tasks align with the proposal's methodology and how they are interconnected among the different individual research projects, affecting the overall quality of the work plan.<br>• The timing of the work packages has several weaknesses, as the recruitment period and the duration of the individual research projects have not been consistently taken into account.<br>• The scientific deliverables have been scheduled too late to serve as the effective tools for progress monitoring, particularly in the first period of the project implementation. The list of administrative deliverables does not include the issue of Data Management Plan.<br>• There are some missing data regarding non-academic secondments' tasks, as some of the declared organisations are not contemplated in the work plan. |

- The proposal does not satisfactorily elaborate on the time that will be dedicated by each supervisor, especially in view that some supervisors already have several PhD candidates.
- The scientific risk resulting from the strong interdependency of the work packages, as reflected in the tasks allocated to the doctoral candidates, has not been fully taken into account.
- Scientific risks are insufficiently addressed, with inadequate contingency plans. For instance, some proposed mitigation strategies (…) do not align with the current trend towards (…) and may fail to yield the necessary insights. This oversight is a shortcoming. Furthermore, the project does not explicitly account for scientific misconduct as a potential risk, which is a minor shortcoming.
- Risks associated with dissemination and communication activities are not fully addressed, which constitutes a shortcoming.
- There are some inconsistencies regarding the recruitment month of some doctoral candidates. It is not entirely clear how the latecomers would participate in certain work package activities.
- The risk management strategy insufficiently considers specific risks, for example risks related to the organization and coordination of scheduled activities or the risk of doctoral candidates deviating from the specified tasks.
- Some doctoral candidates participate in multiple work packages, implying the risk of a high workload, which is not sufficiently considered in the scientific risk assessment.
- Some secondment activities are too short, and only few researchers would gain industry experience. In addition, for industry secondments of 1 month their relevance for the researchers is inconclusive.

### 3.2 Quality, capacity and role of each participant, including hosting arrangements and extent to which the consortium as a whole brings together the necessary expertise

Required sub-headings:

- Appropriateness of the infrastructure and capacity of each participating organisation, as outlined in Section 8 (Participating Organisations), in light of the tasks allocated to them in the action;

- Describe how the consortium (including associated partners) has the necessary state-of-the-art infrastructure (databases, laboratories, research and scientific equipment, software, etc.), and premises to host and implement all aspects of the programme (research, training, administration, communications, exploitation, etc.).
- Describe how the overall operational capacity and staff resources are sufficient to host and train researchers.
- Point out that consortium participants are leaders in their field and have all the research infrastructure, expertise and the appropriate capacity for training programmes.
- Make sure that the hosting arrangements of the participating organisations (including assisting the doctoral candidates with relocation and settling into their new countries and research environments) are consistent across the consortium. Have in mind International Offices/Welcome Centres/EURAXESS centres on a national level or at universities/research organisations. If consortium partners have endorsed the European Charter for Researchers, an updated version of the 2005 Charter and Code, you should say so.
- If consortium partners have the "HR Excellence in Research" logo, state this too.
- The list of organisations by country with the "HR Excellence in Research" or HRS4R Acknowledged Institutions is available on EURAXESS portal.
- Non-academic consortium members can also point out any other quality labels they may have.

- Consortium composition and exploitation of participating organisations' complementarities: explain the compatibility and coherence between the tasks attributed to each beneficiary/associated

partner in the action, including in light of their experience; Show how this includes expertise in social sciences and humanities, open science practices, and gender aspects of R&I, as appropriate.

- Explain how the consortium and supervisors are the best choice to implement this programme including:
  - Complementarities/synergies between all participants and how these will be exploited to deliver an excellent programme (use a diagram or table).
  - How their previous experience makes them suitable for their tasks in this programme.
  - Also, state if you have had previous direct experience with cooperation in research projects (e.g., MSCA ITN/DN, MSCA RISE, COST Action or another research project).
  - Highlight relevant expertise in social sciences and humanities, open science practices, and gender aspects of R&I, as appropriate.

- Role of associated partners to the programme (please see also section 8). The role of associated partners and their contribution to the project should be explained.

- Outline the role of each associated partner by showing that they are all highly active in the project – refer to earlier sections.
- It is vital to highlight strong non-academic sector involvement.

- Funding of non-associated third countries (if applicable): Only entities from EU Member States, from Horizon Europe Associated Countries or from countries listed in the HE Programme guide are automatically eligible for EU funding. If one or more of the beneficiaries requesting EU funding is based in a country that is not automatically eligible for such funding, the application shall explain in terms of the objectives of the action why such funding would be essential. Only in exceptional cases will these organisations receive EU funding. The same applies for international organisations other than IERO.

#§QUA-LIT-QL§# #§WRK-PLA-WP§#

- The HE Programme Guide indicates that exceptional funding is possible if the participant's country is explicitly ''identified in the Horizon Europe work programme and call for proposals as being eligible for funding, and/or the granting authority considers that their participation as a beneficiary is essential for implementing the project, for example in view of their:
  • outstanding competence/expertise
  • access to particular research infrastructures
  • access to particular geographical environments
  • access to particular data.''

| STRENGTHS – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS |
|---|
| • All participating beneficiaries and associated partners have the required capacities to host the doctoral candidates, granting them access to all necessary office space, IT tools, software packages and (online) library access.<br>• Parties with previous experiences with MSCA projects and administration of EU projects exist in the consortium that can ensure the smooth progression of this project<br>• The proposal convincingly demonstrates that consortium partners have the necessary infrastructure and operational capacity to implement the project. Participating organizations display a high level of complementarities, sustained also by previous collaborative actions. Moreover, the commitment of the associate partners is credible and reflected by their involvement in training and secondments. |

- Academic partners are leaders in their fields. The network consolidates previous collaborative research expertise and knowledge. Complementarity of the partner's expertise is convincingly documented. The infrastructure at the participating organisations is appropriate for the execution of the research and training programs.
- All participating organisations have the necessary infrastructure to enable them to carry out their work as planned. In addition, the partner organisations have adequate organisational and human resources capacity to support hosting and integration of the researchers.
- The secondment plan is extremely well thought through and relevant to the research, training, and communication plans. The hosting arrangements at each partner institution are fully credible, including individual workplaces, individual contact persons, integration into relevant networks and data access support.
- The project execution arrangements are very good, including a gender-sensitive Supervisory board, sound monitoring and evaluation procedures of individual DC projects, and a transparent recruitment strategy.

**WEAKNESSES – EXAMPLES FROM PREVIOUS EVALUATION SUMMARY REPORTS**

- Proposal lacks a sufficient description of hosting arrangements for the DCs.
- The proposal lacks sufficient detail on the research environments that will directly support DCs beyond direct supervisory arrangements
- The provided description of infrastructure for some of the participants does not sufficiently emphasize the infrastructures that are of relevance to the project.
- The large number of associated partners gives rise to possible imbalance and difficulty in managing the project.
- Insufficient information is provided on the time that will be committed by key persons from some of non-academic organizations.
- The participants' commitment to implement the data management plan is not clearly justified.
- The plan for secondments has not been supported by adequate justification of their rationale and duration.
- Many of the network-wide training activities, short courses and outreach activities are structured around the coordinator, raising concerns about the collective role of the other participants.

**STOP PAGE COUNT – MAX 30 PAGES (SECTIONS 1-3)**

**DOCUMENT 2**
**(no overall page limit applied)**

## 4. Recruitment strategy

**(including how the project will strive to adhere to the Code of Conduct for the recruitment of researcher).**

- Centralised recruitment with the involvement of the HR department is best practice.
- Describe the application process:
  - Information mentioned in job offers
  - Publication of job offers (use EURAXESS Jobs and funding portal to advertise, among others)
  - Platform used to collect the applications
  - Applicant requirements
  - Composition of selection committees
  - Selection criteria and indicators
  - Decision making/selection process
  - Information of applicants
  - Procedure if a DC position is not filled
  - Timing
- Demonstrate that the recruitment strategy respects the principles of the Code of Conduct for the recruitment of researchers.
- Briefly explain employment conditions (employment contracts or equivalent direct contracts[19])
- Have in mind gender-balanced recruitment. If applicable and relevant to your research area, describe how you will recruit a gender-balanced mix of doctoral candidates, e.g. targeted advertising to women-in-science groups (e.g. IEEE Women in Engineering, plus multi-disciplinary groups such as the European Platform of Women Scientists).

⚠ *The following sections of the European Code of Conduct for the Recruitment of Researchers refer specifically to recruitment and selection:*

**Recruitment**

Employers and/or funders should establish recruitment procedures which are open, efficient, transparent, supportive and internationally comparable, as well as tailored to the type of positions advertised.

Advertisements should give a broad description of knowledge and competencies required, and should not be so specialised as to discourage suitable applicants. Employers should include a description of the working conditions and entitlements, including career development prospects. Moreover, the time allowed between the advertisement of the vacancy or the call for applications and the deadline for reply should be realistic.

**Selection**

Selection committees should bring together diverse expertise and competences and should have an adequate gender balance and, where appropriate and feasible, include members from different sectors (academic and non-academic) and disciplines, including from other countries and with relevant experience to assess the candidate. Whenever possible, a wide range of selection practices should be used, such as external expert assessment and face-to-face interviews. Members of selection panels should be adequately trained.

[19] A fixed-amount fellowship contract is only possible in cases where national legislation (or equivalent internal rules of an international organisation or EU body, including IEROs) prohibit the issuance of an employment/equivalent direct contract, and is in any case subject to the prior agreement of the granting authority.

## 5. Network organisation

Please explain the management structure and organisation of the network, including the roles of the different actors, and modus operandi including project monitoring and decision making. Please describe the Joint Governing structure for DN-ID and DN-JD.

- Suggested Management Structure:
  - Supervisory board (decision making body)
  - External Advisory group
  - Project management team
  - Doctoral candidates committee
  - Committees related to work packages: training/ doctoral studies committee, Communication and Public engagement committee, Research coordination committee, Dissemination, IP and exploitation committee.
- Only the Supervisory Board is mandatory.
- Describe each Committee composition and role.
- Gender balance is very important.
- Ensure that there is no overlap between the composition and role of each committee.
- Explain decision-making processes (e.g., simple majority or 2/3 majority rules) and conflict resolution strategy.
- Address the issue of overall quality assurance – will there be external review/monitoring of the Doctoral Network by an independent panel/external advisory group?
- A good practice is to develop a progress monitoring procedure ensuring effectiveness of the progress monitoring (e.g., timely delivery of project deliverables and milestones).

- Describe the use of the Consortium Agreement and what it will cover – a good example is available from the DESCA website (https://www.desca-agreement.eu/desca-model-consortium-agreement/, DESCA CA model for MSCA DN and SE)

- Describe the **financial management strategy** – resource planning and allocation of finances. Ensure the financial resources are allocated transparently and efficiently across the consortium so that the budget is clearly linked to the delivery of the programme.
- Where doctoral degrees in participating organisations require 4 years, if possible, state where you will find the additional funds for the additional year: evaluators are specifically instructed by REA to reward this proactivity with extra points, but not penalise proposals which don't.

- Describe the **internal communications strategy** to keep the consortium and the doctoral candidates in regular contact, e.g., intranet or other document repository, regular face-to-face and/or virtual meetings.

## 6. Supervisory board

Please explain the composition and organisation of the Supervisory board, and how it will strive to adhere to the Marie Skłodowska-Curie actions guidelines on supervision.

Please insert a table that displays the names and gender of supervisors for all Doctoral Candidates, to be adapted to your particular proposal.

- A Supervisory board is mandatory. This is the main decision-making body for the network. All beneficiaries and supervisors are represented, plus at least one doctoral candidate representative (consider rotating representation among all doctoral candidates).
- Associated partners can be represented in the SB with or without voting rights.
- Briefly describe the main activities of the Board, including regular meetings. Detailed decision-making procedures can be explained in Part B2 – Section 5 – Network organisation.

- Be conscious of having a gender-balanced membership.
- Include the list of the project supervisors using the table below.

| Doctoral candidate | Main Supervisor | Gender | Co-supervisor | Gender |
|---|---|---|---|---|
| DC1 | | | | |
| DC2 | | | | |
| DC3 | | | | |
| DC4 | | | | |

## 7. Environmental aspects in light of the MSCA Green Charter [20]

Please explain how the proposed project would strive to adhere to the MSCA Green Charter during its implementation.

- The MSCA Green Charter is a code of good practice for individuals and institutions receiving MSCA funding. The goal of the MSCA Green Charter is to encourage sustainable thinking in research management.
- Describe sustainable measures of implementation and procedures on organisational and consortium level.
- Some measures individuals and institutions are invited to consider are:
  - to reduce, reuse and recycle, promote green purchasing for project-related materials,
  - ensure the sustainability of project events,
  - use low-emission forms of transport,
  - promote teleconferencing whenever possible,
  - use sustainable and renewable forms of energy,
  - develop awareness on environmental sustainability, etc.

- If you have included training for the doctoral candidates in 'green aspects', you may also include it here.
- The MSCA-NET Green Deal Policy Brief includes additional information on how to address green aspects throughout all sections of the application and the link between the EU Green Deal and MSCA.

## 8. Participating Organisations

All organisations (whether beneficiaries or associated partners[21]) must complete the appropriate table below. Complete one table of maximum one page per beneficiary and half a page per associated partner (**minimum font size: 9**). Associated partners linked to a beneficiary should be described separately.

For **beneficiaries**:

| **Beneficiary Legal Name:** | |
|---|---|
| **General Description** | *Short description of the activities relevant to the action* |

[20] The MSCA Green Charter constitutes a code of good practice for all recipients of MSCA funding – both individuals and institutions – and promotes the mainstreaming of environmental considerations in all aspects of project implementation. In so doing, the Charter seeks to reduce the environmental footprint of MSCA-funded projects, to raise awareness of environmental sustainability, and to serve as a catalyst in promoting best practice in sustainable research management.
[21] Please refer to the section on associated partners.

| Include HR Excellence in Research and/or Athena SWAN logo here if applicable | Add a general description of the beneficiary and a short description of the actual centre/department/school participating in the action. |
|---|---|
| **Role and Commitment of key persons (including supervisors)** | *Including names, title and the intended extent of involvement in the action (in percentage of full-time employment) of the key scientific staff who will be involved in the research, training and supervision* |
| **Key Research Facilities, Infrastructure and Equipment** | *Outline the key facilities and infrastructure available and demonstrate that each team has sufficient capacity to host and/or offer a suitable environment for supervising the research and training of the recruited researchers (relevant for the specific nature/content of this proposal).* |
| **Status of Research Premises** | *Please explain the status of the beneficiary's research facilities – i.e. are they owned by the beneficiary or rented by it? Are its research premises wholly independent from other beneficiaries and/or associated partners in the consortium?* |
| **Previous Involvement in Research and Training Programmes, including H2020 ITN** | *Detail any relevant EU, national or international research and training actions/projects in which the beneficiary has previously participated. Please clearly mention any previous involvement in H2020 ITN or HE DN funded project(s), including project(s) acronym and reference number.* |
| **Current Involvement in Research and Training Programmes, including H2020 ITN** | *Detail any relevant EU, national or international research and training actions/projects in which the beneficiary is currently participating. Please clearly mention any current involvement in ongoing ITN or DN funded project(s), including project(s) acronym and reference number.* |
| **Relevant Publications/datasets/ softwares/ Innovation Products/ other achievements** | *Max. 5*<br>*Key elements of the achievement, including a short qualitative assessment of its impact and (where available) its digital object identifier (DOI) or other type of persistent identifier (PID).*<br>*Publications, in particular journal articles, are expected to be open access. Datasets are expected to be FAIR and 'as open as possible, as closed as necessary'.* |

For **associated partners:**

| **Associated Partner Legal Name:** | |
|---|---|
| **General description** | *Short description of the activities relevant to the action* |
| **Key Persons and Expertise** | *Including names, title and expertise of the key scientific staff who will be involved in the project.* |
| **Key Research Facilities, Infrastructure and Equipment** | *Outline the key facilities and infrastructure available and demonstrate that each team has sufficient capacity to host and/or offer a suitable environment for supervising the research and training of the recruited researchers (relevant for the specific nature/content of this proposal).*<br>Please be sure to list all facilities that will be needed by doctoral candidates on secondment at this organisation. |
| **Previous and Current Involvement in Research and Training Programmes** | *Detail any relevant EU, national or international research and training actions/projects in which the entity is participating or has previously participated. Please clearly mention any previous involvement in H2020 ITN or HE DN funded project(s), including project(s) acronym and reference number.* |
| **Relevant Publications/datasets/ softwares/ Innovation Products/ other achievements** | *Max. 3* |

| | |
|---|---|
| | *Key elements of the achievement, including a short qualitative assessment of its impact and (where available) its digital object identifier (DOI) or other type of persistent identifier (PID). Publications, in particular journal articles, are expected to be open access. Datasets are expected to be FAIR and 'as open as possible, as closed as necessary'.* |

For **associated partners linked to a beneficiary:**

| **Associated Partner linked to a beneficiary Legal Name:** | |
|---|---|
| **General description and link to the concerned beneficiary** | *Short description of the activities relevant to the action* |
| **Key Persons and Expertise** | *Including names, title and expertise of the key scientific staff who will be involved in the project.* |
| **Key Research Facilities, Infrastructure and Equipment** | *Outline the key facilities and infrastructure available and demonstrate that each team has sufficient capacity to host and/or offer a suitable environment for supervising the research and training of the recruited researchers (relevant for the specific nature/content of this proposal).* |
| **Previous and Current Involvement in Research and Training Programmes** | *Detail any relevant EU, national or international research and training actions/projects in which the entity is participating or has previously participated. Please clearly mention any previous involvement in H2020 ITN or HE DN funded project(s), including project(s) acronym and reference number.* |
| **Relevant Publications/datasets/ softwares/ Innovation Products/ other achievements** | *Max. 3*<br>*Key elements of the achievement, including a short qualitative assessment of its impact and (where available) its digital object identifier (DOI) or other type of persistent identifier (PID). Publications, in particular journal articles, are expected to be open access. Datasets are expected to be FAIR and 'as open as possible, as closed as necessary'.* |

## 9. Letters of pre-agreement (for DN-JD)

**For DN-JD, letters of pre-agreement** must also be included from those academic beneficiaries/associated partners that will award the doctoral degrees, in part B (document 2) of the proposal. These letters should be signed by an **authorised legal representative** of the organisation in question so as to offer reasonable assurance regarding the commitment to award the joint, double or multiple doctoral degree(s). These letters should also indicate agreement with the principle that the awarding of such degrees is a precondition for funding. **A template** for these letters is provided below and **must be followed by all academic DN-JD applicants awarding the doctoral degree(s)**.
In case the letter does not follow in full the template or fails to give enough assurance on the commitment in the project (e.g. no signature, wrong proposal references, outdated letter…), the experts may penalise the proposal on these aspects under the implementation evaluation criterion. Missing letters of pre-agreement will lead to the exclusion of the entity, which may affect the eligibility of the proposal.

Letters of pre-agreement must be included in the PDF file (Part B, document 2); these should not be attached in a separate PDF file or as an embedded file since this makes them invisible.

**Template of pre-agreement letter for DN-JD participants awarding a joint/double or multiple degree**

*- On headed paper of the Institution or of the Doctoral School*

*- Beyond any additional information that the participating organisation wishes to indicate in its Letter of pre-agreement, the following text should appear in all its parts and with no modifications:*

I undersigned[22] .....…, in my quality of[23] ……..…, commit to set up all necessary provisions to award a joint/double/multiple[24] research doctoral degree in the frame of the DN-JD proposal[25] …… submitted within the call HORIZON-MSCA-DN-2025, should the proposal be funded.

I am aware of and agree with the principle that the setting up of such provisions is a precondition for funding.

The research doctoral degree will be awarded to those Marie Skłodowska-Curie researchers who will fulfil, at the end of their research work, the requirements as set out in the formal agreement to establish the joint/double/multiple research doctoral degree between the relevant participating organisations.

[*Free field for any additional information that the participating organisation wishes to indicate*]

I am aware that the formal agreement to establish the joint/double/multiple research doctoral degree is due by month 6 from the start date of the project and I commit to comply with this deadline.

I hereby declare that I am entitled to commit into this process the Institution/Doctoral School I represent.

## 10. Declaration on the use of AI

- You should provide respective information as described in the Guidance on the use of generative AI tools for the preparation of the proposal.
- AI definitions are available in the Definition from the European Commission's High-Level Expert Group on Artificial Intelligence.
- See also Living guidelines on the responsible use of generative AI in research and recommendation for researchers, research organisations and funding organisations.

[22] First name and surname.
[23] Role in and name of the Institution/Doctoral School.
[24] Choose the relevant one(s).
[25] Title of the proposal.