Research Proposal
Part B

General instructions (please delete this box in the final version)
The template is mandatory. Applicants are required to read carefully and comply with the layout instructions (font, font size, margins, line spacing included).

- Sections 1, 2 and 3 should be maximum 10 pages. **Projects exceeding this length limit will be declared ineligible.**
- References are added at the end of section 4 and are not included in the page limit.
- Section 5 and 6 are not included in the page limit
- Font to be used: Times New Roman.
- Minimum font size for text: 11 points
- Minimum font size for captions, tables, references, footnotes: 9 points
- Top, bottom, left, right margins: 15mm
- Single line spacing
- Please remove the instructions after each heading in the final version

Use of generative AI
Please check instructions in the applicant guide

1. Excellence

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). Appropriate consideration of gender aspects if any.

Provide a brief and clear introduction, discuss the state-of the art and explain the research questions/objectives.
Provide a description of the methodology used to achieve the objectives/answer the questions, in compliance with Open Science practices and FAIR data management.
Present any preliminary results that show the feasibility of the proposed project.
Explain the innovative character of the research project and to what extent it advances significantly the state of the art and the knowledge in the research field.
Discuss the gender dimension in the research content (if relevant).

1.2. Relevance to the Cleantech thematic

Explain which Cleantech challenge or area your project addresses and how your research objectives, methodology and expected results contribute to it. Explain also how the (research for the) project will be conducted sustainably.
Describe the environmental issue targeted by the project and explain how the proposed research could lead to a cleaner, more sustainable or more resource-efficient solution, process, product or service. Where relevant, support your explanation with measurable indicators, such as reductions in emissions, energy, material or water consumption, waste or pollution, or improvements in circularity and resource efficiency.
The Cleantech dimension should be a core element of the project, rather than an indirect or secondary benefit. The information provided should allow evaluators to clearly assess whether the project meets this mandatory thematic requirement.

1.3. Quality and appropriateness of the secondment

Provide a description of the secondment and its intersectoral and/or interdisciplinary where relevant, and, as far as possible, the international dimension. Describe the added value of the secondment for the researcher and the project.

1.4. Appropriateness of the training and of the two-way transfer of knowledge between the researcher and the hosting group

Describe the training activities proposed. Two types of training exist:

- Research-related training that will be established in a form of a personalised project with the guidance of the supervisor and that will include the training necessary to address the specific needs of the project (e.g. learning a technique, participating in conferences, secondments etc.)
- Wider training on cross-cutting issues (ethics, open science) and transferable skills (communication, pedagogical skills, intellectual property rights management, project management, etc.)
- Outline how a two-way transfer of knowledge will occur between the researcher and the host institution(s):
  - Explain what new knowledge the experienced researcher will gain during the fellowship at the hosting organisation(s) and how it will be acquired.
  - Outline the previously acquired knowledge and skills that the researcher will transfer to the host organisation(s).

Be advised that successful candidates will develop and monitor during their fellowship a Career Development Plan (CDP). The CDP is <u>not</u> required at the submission stage.

1.5. Quality of the researcher and potential to reach professional independence

Describe how your existing competences and background are necessary for the successful completion of the fellowship. Explain how the new competencies acquired during the fellowship will help you achieve professional maturity and independence. The section will be evaluated in conjunction with your CV.

2. Impact

2.1. Enhancing the future career prospects of the researcher

Explain the impact of the research project and the training activities (i.e. the added value of the fellowship) on your career perspectives inside and/or outside academia.

2.2. Project's contribution to the expected scientific, societal and economic impacts

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. 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.

- **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. contributing to the pursuit of the17 Sustainable Development Goals (SDGs - https://sdgs.un.org/goals) of the United Nations, to eradicate poverty, protect the planet and ensure prosperity for all, …

2.3. Valorisation of results and entrepreneurial potential

- **Exploitation potential**

Identify the main exploitable research results, their potential applications and users, and indicate whether they could lead to IP protection, licensing, spin-off creation or other forms of exploitation. Explain the additional proof of concept, validation or maturation required and how IP issues, including prior-art analysis and protection strategy, will be addressed.

Exploitation also refers to the results of the project and how they can be valorised for economic or societal purposes, Candidates should comment on the potential for commercialisation or societal valorisation of the project results.

- **Industry collaboration plan and sustainability**

Describe the planned interactions with industrial partners, users or other relevant non-academic stakeholders and explain how these interactions will support technology maturation, co-development or future exploitation. Indicate how the project could be further developed beyond the fellowship, for example through continued industrial collaboration, licensing, spin-off development, follow-up research or additional funding.

- **Integration into the research plan**

Explain how the proposed valorisation and entrepreneurship activities are integrated into the research plan and linked, where relevant, to the associated work packages, deliverables and milestones.

2.4. Quality of the strategy for the dissemination and communication of project results and activities

Describe how the new knowledge generated by the project will be disseminated and exploited, and what the potential impact is expected to be. Discuss the strategy for targeting peers and key stakeholders (such as the scientific community, industry, professional organisations, policy makers, etc.).

Demonstrate how the planned public engagement activities contribute to creating awareness of the performed research. Demonstrate how both the research and results will be made known to the public in such a way that they can be understood by non-specialists.

- Dissemination refers to the results of the project and how they are transmitted to the scientific community and other stakeholders (e.g. publications, conferences, workshops with policy makers, Open access, etc).
- Communication refers to all types of activities undertaken during the project and communicated to diverse audiences, including the general public. These activities aim also at raising public awareness on European Research and are therefore designed to be understandable by non-specialists (e.g. videos, blog, presence in science fairs, school visits, etc.).

All dissemination, exploitation and communication activities should be detailed and clearly appear in the work plan of the candidate (in the Gantt Chart of Section 3.1).

3. Implementation

3.1. Coherence, feasibility and effectiveness of the work plan

Describe and justify how the work is planned throughout the duration of the project. Use a Gantt chart (see example below, candidates are welcome to adapt it as needed.) to visually represent the work plan. Explain the allocation of time to the different tasks. Describe the work packages, deliverables, milestones and secondment.

A Work Package (WP) is a logical grouping of tasks that need to be carried out to achieve the objectives set in section 1.1. There is no correct or wrong number or structure of WPs, it is highly dependent on the nature of the work. Deliverables (D) are distinct tangible research outputs (e.g. a report, a software, a prototype, etc.). Milestones (M) are control points, not necessarily in the form of a distinct output (e.g. a decision, the organisation of a conference, a major deliverable coming out).

Include the secondment, where applicable, in the Gantt chart and indicate the timing and duration.

Month / Title	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20				
WP1 Management																								
Deliverables									D1.1									D1.2						
Milestones									M1.1			M1.2						M1.3						
WP2 Research part X																								
Deliverables														D2.1				D2.2						D2.3
Milestones																								M.1
WP3 Research part X2																								
Deliverables	D3.1					D3.2 D3.1							D3.3					D3.1					D3.3	D3.1
Milestones																				M1.1				
WP4 Secondment																								

Figure 1: Gantt Chart
Notes: - The titles of the WPs indicated here do not have to be strictly followed or included in the Gantt chart for your specific proposal. Adapt as needed. - The number of WPs provided here is an example only. Add or remove WPs as needed. - Remove any columns for a duration longer than that of your proposal. - Add as much detail as needed for your proposal.

3.2. Risk management

Describe the progress monitoring mechanisms put in place, to ensure that objectives are reached. Provide a clear identification and assessment of the potential risks, strategies to minimise them and contingency plans in case they appear. Tables are recommended, listing the risk description (per WP), level of risk (high, medium, low), and the mitigation action. Where relevant, include scientific, technical, Cleantech-performance, intellectual-property, market, regulatory, scale-up, team and financing risks associated with the valorisation and spin-off pathway.

STOP page count – MAX 10 pages

4. Curriculum Vitae of the candidate (max. 5 pages)

General instructions (please delete this box in the final version)
Please fill in the information in as much detail as possible
If some entries are not applicable then mention "not applicable"
Maximum length of the CV is 5 pages

Personal Information
Full Name:
Researcher unique identifier (e.g. ORCID, Research ID, etc. ...):
Nationality:
Address:
Website:
E-mail & Telephone:
Education (starting from the most current)

- DD/MM/YY - DD/MM/YY: Unit/Department/Faculty/University/Country

Mention the title of your thesis and the name of the supervisor

- DD/MM/YY - DD/MM/YY: Unit/Department/Faculty/University/Country

Mention the title of your thesis

- …

Professional experience (starting from the most current)

- DD/MM/YY - DD/MM/YY: Position - Department/Institution/Country

Provide information on the duties

- DD/MM/YY - DD/MM/YY: Position - Department/Institution/Country

Provide information on the duties

- …

Career breaks in research

- DD/MM/YY - DD/MM/YY

Indicate the reason for the break and the place of residence during this period.

- …

Publications (peer-reviewed journals & conference proceedings, monographs, books, book chapters, etc.) Include the number of citations, excluding self-citations. List up the 5 most important publications (in chronological order, most recent first) with 6 lines including a short assessment of its impact.
Patents (granted and applications.)
Invited presentations/lectures (conferences, advanced schools, etc.)
Mention the title of the lecture, the conference/school and the year
Further dissemination (posters, oral communication, etc.)
Mention the title, the type, the conference/event and the year
Research expeditions, if applicable
…
Organisation of (inter)national conferences
Mention the date, event type & name/participant number/country. Explain your role …
…
Major achievements
Explain any significant achievement (e.g. science & innovation-related, business & society-related)
…
Prizes and Awards
DD/MM/YY: Award name & amount (if applicable)/Awarding authority/Country
Explain the nature and importance of the award/prize
…
Funding record (past, current, pending)
Describe the nature of the project, the overall amount and the funding agency.
…

Supervision activities, if applicable.

- DD/MM/YY - DD/MM/YY: Department/Faculty/University/Country
  Describe the type of supervision and the current position of the supervised researchers
- …

Teaching activities, if applicable

- DD/MM/YY - DD/MM/YY: Department/Faculty/University/Country

Teaching position, topic and number of hours

- …

Institutional responsibilities

Describe any academic or administrative responsibilities in your previous positions (e.g. member of internal committees, working groups)

- DD/MM/YY – DD/MM/YY: Describe the nature of the responsibility

Commissions of trust (e.g. advisory board in research projects, reviewer in scientific journals)

- DD/MM/YY – DD/MM/YY: Describe the nature of the activity
- …

Memberships of scientific societies/networks

- DD/MM/YYYY – DD/MM/YYYY: Mention the name of the Society/Networks
- …

Major collaborations

Describe major (inter)national collaborators

- Name, Topic, Department/Institution/Country
- …

STOP page count – MAX 5 pages

5. Identification of the proposed PI/CoPI/secondment supervisor

Max. 1 page for each table

Name of the proposed PI	
Institution	
Role	
Previous and current involvement in research and training programmes	Indicate up to 5 relevant EU, national or international research and training actions/projects in which the beneficiary has previously participated and/or is currently participating
Relevant publications and/or research/innovation products	Max. 5 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'.

Name of the proposed CoPI	
Institution	
Role	
Previous and current involvement in research and training programmes	Indicate up to 5 relevant EU, national or international research and training actions/projects in which the beneficiary has previously participated and/or is currently participating
Relevant publications and/or research/innovation products	Max. 5 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'.

Name of the proposed secondment supervisor	
Institution	
Role	
Previous and current involvement in research and training programmes	Indicate up to 5 relevant EU, national or international research and training actions/projects in which the beneficiary has previously participated and/or is currently participating
Relevant publications and/or research/innovation products	Max. 5 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'.

Ethics and Security – Ethics issues table

This table should be completed as an essential part of your proposal.
Please go through the table and indicate which elements concern your proposal by answering 'Yes' or 'No'. If you answer 'Yes' to any of the questions,
▪ indicate in the adjacent box at which page in your full proposal further information relating to that ethics issue can be found, and
▪ provide additional information on that ethics issue in the Ethics Self-Assessment section.

For more information on each of the ethics issues and how to address them, including detailed legal references, see the guidelines 'How to Complete your Ethics Self-Assessment'.

1. HUMAN EMBRYONIC STEM CELLS AND HUMAN EMBRYOS		Page
Does this activity involve Human Embryonic Stem Cells (hESCs)?	Yes ☐ No ☐	
↳ If YES: Will they be directly derived from embryos within this project?	Yes ☐ No ☐	
↳ Are they previously established cells lines?	Yes ☐ No ☐	
↳ Are the cell lines registered in the European registry for human embryonic stem cell lines?	Yes ☐ No ☐	
Does this activity involve the use of human embryos?	Yes ☐ No ☐	
↳ If YES: Will the activity lead to their destruction?	Yes ☐ No ☐	

2. HUMANS		Page
Does this activity involve human participants?	Yes ☐ No ☐	
↳ If YES: Are they volunteers for nonmedical studies (e.g. social or human sciences research)?	Yes ☐ No ☐	
↳ Are they healthy volunteers for medical studies?	Yes ☐ No ☐	
↳ Are they patients for medical studies?	Yes ☐ No ☐	
↳ Are they potentially vulnerable individuals or groups?	Yes ☐ No ☐	
↳ Are they children/minors?	Yes ☐ No ☐	
↳ Are they other persons unable to give informed consent?	Yes ☐ No ☐	
Does this activity involve interventions (physical also including imaging technology, behavioural treatments, etc.) on the study participants?	Yes ☐ No ☐	

↳ If YES: Does it involve invasive techniques?	Yes ☐ No ☐	
↳ Does it involve collection of biological samples?	Yes ☐ No ☐	
Does this activity involve conducting a clinical study as defined by the Clinical Trial Regulation (EU 536/2014)? (using pharmaceuticals, biologicals, radiopharmaceuticals, or advanced therapy medicinal products)	Yes ☐ No ☐	
↳ If YES: Is it a clinical trial?	Yes ☐ No ☐	
↳ Is it a low-intervention clinical trial?	Yes ☐ No ☐	

3. HUMAN CELLS / TISSUES (not covered by section 1)		Page
Does this activity involve the use of human cells or tissues?	Yes ☐ No ☐	
↳ If YES: Are they human embryonic or foetal cells or tissues?	Yes ☐ No ☐	
↳ Are they available commercially?	Yes ☐ No ☐	
↳ Are they obtained within this project?	Yes ☐ No ☐	
↳ Are they obtained from another project, laboratory or institution?	Yes ☐ No ☐	
↳ Are they obtained from biobank?	Yes ☐ No ☐	

4. PERSONAL DATA		Page
Does this activity involve processing of personal data?	Yes ☐ No ☐	
↳ If YES: Does it involve the processing of special categories of personal data (e.g.: sexual lifestyle, ethnicity, genetic, biometric and health data, political opinion, religious or philosophical beliefs)?	Yes ☐ No ☐	
↳ If YES: Does it involve processing of genetic, biometric or health data?	Yes ☐ No ☐	
↳ Does it involve profiling, systematic monitoring of individuals, or processing of large scale of special categories of data or intrusive methods of data processing (such as, surveillance, geolocation tracking etc.)?	Yes ☐ No ☐	
Does this activity involve further processing of previously collected personal data (including use of preexisting data sets or sources, merging existing data sets)?	Yes ☐ No ☐	
Is it planned to export personal data from the EU to non-EU countries?	Yes ☐ No ☐	

↳ If YES: Specify the type of personal data and countries involved:		
Is it planned to import personal data from non-EU countries into the EU or from a non-EU country to another non-EU country?	Yes ☐ No ☐	
↳ If YES: Specify the type of personal data and countries involved:		
Does this activity involve the processing of personal data related to criminal convictions or offences?	Yes ☐ No ☐	

5. ANIMALS		Page
Does this activity involve animals?	Yes ☐ No ☐	
↳ If YES: Are they vertebrates?	Yes ☐ No ☐	
↳ Are they non-human primates (NHP)?	Yes ☐ No ☐	
↳ Are they genetically modified?	Yes ☐ No ☐	
↳ Are they cloned farm animals?	Yes ☐ No ☐	
↳ Are they endangered species?	Yes ☐ No ☐	

6. NON-EU COUNTRIES		Page
Will some of the activities be carried out in non-EU countries?	Yes ☐ No ☐	
↳ If YES: Specify the countries:		
In case non-EU countries are involved, do the activities undertaken in these countries raise potential ethics issues?	Yes ☐ No ☐	
↳ If YES: Specify the countries:		
Is it planned to use local resources (e.g. animal and/or human tissue samples, genetic material, live animals, human remains, materials of historical value, endangered fauna or flora samples, etc.)?	Yes ☐ No ☐	
Is it planned to import any material (other than data) from non-EU countries into the EU or from a non-EU country to another non-EU country? For data imports, see section 4.	Yes ☐ No ☐	
↳ If YES: Specify material and countries involved:		
Is it planned to export any material (other than data) from the EU to non-EU countries? For data exports, see section 4.	Yes ☐ No ☐	
↳ If YES: Specify material and countries involved:		
Does this activity involves low and/or lower-middle income countries? (if yes, detail the benefit-sharing actions planned in the self-assessment)	Yes ☐ No ☐	

Could the situation in the country put the individuals taking part in the activity at risk?	Yes ☐ No ☐	

7. ENVIRONMENT, HEALTH and SAFETY		Page
Does this activity involve the use of substances or processes that may cause harm to the environment, to animals or plants (during the implementation of the activity or further to the use of the results, as a possible impact)?	Yes ☐ No ☐	
Does this activity deal with endangered fauna and/or flora / protected areas?	Yes ☐ No ☐	
Does this activity involve the use of substances or processes that may cause harm to humans, including those performing the activity (during the implementation of the activity or further to the use of the results, as a possible impact)?	Yes ☐ No ☐	

8. ARTIFICIAL INTELLIGENCE		Page
Does this activity involve the development, deployment and/or use of Artificial Intelligence based systems? (if yes, detail in the self-assessment whether that could raise ethical concerns related to human rights and values and detail how this will be addressed).	Yes ☐ No ☐	

9. OTHER ETHICS ISSUES		Page
Are there any other ethics issues that should be taken into consideration?	Yes ☐ No ☐	
↳ Please specify: (Maximum number of characters allowed: 1000)		

☐ I confirm that I have taken into account all ethics issues above and that, if any ethics issues apply, I will complete the ethics self-assessment as described in the guidelines 'How to Complete your Ethics Self-Assessment'.

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

Ethical dimension of the objectives, methodology and likely impact
Explain in detail the identified issues in relation to: – objectives of the activities (e.g. study of vulnerable populations, etc.) – methodology (e.g. clinical trials, involvement of children, protection of personal data, etc.) – the potential impact of the activities (e.g. environmental damage, stigmatisation of particular social groups, political or financial adverse consequences, misuse, etc.)

Compliance with ethical principles and relevant legislations
Describe how the issue(s) identified in the ethics issues table above will be addressed in order to adhere to the ethical principles and what will be done to ensure that the activities are compliant with the EU / national legal and ethical requirements of the country or countries where the tasks are to be carried out. It is reminded that for activities performed in a non-EU countries, they should also be allowed in at least one EU Member State.