



# Impact and ambition how to generate an impact in the society at large. Communication, exploitation

- Carmela Marangi

Istituto per le Applicazioni del Calcolo M. Picone

Consiglio Nazionale delle Ricerche

**IR0000032 – ITINERIS, Italian Integrated Environmental Research Infrastructures System**  
(D.D. n. 130/2022 - CUP B53C22002150006) Funded by EU - Next Generation EU PNRR-  
Mission 4 “Education and Research” - Component 2: “From research to business” - Investment  
3.1: “Fund for the realisation of an integrated system of research and innovation infrastructures”



# Outline

- 🌐 Objectives and ambition (Excellence)
- 🌐 Key impact Pathways (Impact)
- 🌐 Gender Equality, Balance and Dimension (Excellence)
- 🌐 Dissemination, Exploitation, Communication (Impact and implementation)
- 🌐 Risks and mitigation actions (Implementation)
- 🌐 Ethics self assessment
- 🌐 Data Management and Data Management Plan
- 🌐 Open Science

## Horizon Europe legislation defines three types of impact tracked through **Key Impact Pathways**



# Objectives and ambition: the excellence

## 1.1 Objectives and ambition #@PRJ-OBJ-PO@# [e.g. 4 pages]

- Briefly describe the objectives of your proposed work. Why are they pertinent to the work programme topic? Are they measurable and verifiable? Are they realistically achievable?
- Describe how your project goes beyond the state-of-the-art, and the extent the proposed work is ambitious. Indicate any exceptional ground-breaking R&I, novel concepts and approaches, new products, services or business and organisational models. Where relevant, illustrate the advance by referring to products and services already available on the market. Refer to any patent or publication search carried out.
- Describe where the proposed work is positioned in terms of R&I maturity (i.e. where it is situated in the spectrum from 'idea to application', or from 'lab to market'). Where applicable, provide an indication of the Technology Readiness Level, if possible distinguishing the start and by the end of the project.

⚠ Please bear in mind that advances beyond the state of the art must be interpreted in the light of the positioning of the project. Expectations will not be the same for RIAs at lower TRL, compared with Innovation Actions at high TRLs. |

From the template (Part B)



# Some examples

## Example of objectives

1. **Implement a model-based systems engineering approach** (see Ch. 1.2.2) to (1) better manage the complexity of the distributed RI System Architecture (SA) design and (2) support agile management and decision-making in a phased approach now imposed by the uncertain framework conditions (WP1 & 2);
2. **Streamline the overall design in order to implement a 'skeleton RI' with minimal delays**, i.e., a baseline RI with firmly hosted initial key services in support of core user groups. It is a starting point for extensions during the operational phase as specifications proceed and adequate funding can be expanded (WP1–6);
3. **Ensure the establishment of essential cyberinfrastructure components**, while planning for and launching a phased approach to extend the service capabilities in close cooperation with European ENV-RIs (WP3, 4, 7, 8);
4. **Strengthen the formalisation efforts in response to the increased complexity** since spring 2020, in particular due to the transition to a phased approach (i.e., iterative planning and negotiations in several distinct phases)

## Example of ambition

- Contribute to the development of a **Climate Service market** conjugating open tools and their commercial exploitation.
- Perform an **effective participatory process for co-developing Climate Services** with iteration cycles that keep aligned the quality of the implementation and the stakeholder expectations regarding usability, reliability and flexibility, so as to adapt to changing scenarios of decision-making chains.

# Impact section: the key elements

## KEY ELEMENT OF THE IMPACT SECTION

SPECIFIC NEEDS	EXPECTED RESULTS	D & E & C MEASURES
<p><i>What are the specific needs that triggered this project?</i></p> <p><b>Example 1</b> Most airports use process flow-oriented models based on static mathematical values limiting the optimal management of passenger flow and hampering the accurate use of the available resources to the actual demand of passengers.</p> <p><b>Example 2</b> Electronic components need to get smaller and lighter to match the expectations of the <u>end-users</u>. At the same time there is a problem of <u>sourcing of</u> raw materials that has an environmental impact.</p>	<p>What do you expect to generate by the end of the project?</p> <p><b>Example 1</b> <b>Successful large-scale demonstrator:</b> Trial with 3 airports of an advanced forecasting system for proactive airport passenger flow management.</p> <p><b>Algorithmic model:</b> Novel algorithmic model for proactive airport passenger flow management.</p> <p><b>Example 2</b> Publication of a <b>scientific discovery on transparent electronics</b>.</p> <p><b>New product:</b> More sustainable electronic circuits.</p> <p><b>Three PhD students trained.</b></p>	<p>What dissemination, exploitation and communication measures will you apply to the results?</p> <p><b>Example 1</b> <b>Exploitation:</b> Patenting the algorithmic model.</p> <p><b>Dissemination towards the scientific community and airports:</b> Scientific publication with the results of the large-scale demonstration.</p> <p><b>Communication towards citizens:</b> An event in a shopping mall to show how the outcomes of the action are relevant to our everyday lives.</p> <p><b>Example 2</b> <b>Exploitation of the new product:</b> Patenting the new <u>product</u>; Licencing to major electronic companies.</p> <p><b>Dissemination towards the scientific community and industry:</b> Participating at conferences; Developing a platform of material compositions for industry; Participation at EC project portfolios to disseminate the results as part of a group and maximise the visibility vis-à-vis companies.</p>

## 2.3 Summary

### KEY ELEMENT OF THE IMPACT SECTION

Associated with document Ref. Ares(2022)8373794 - 02/12/2022

SPECIFIC NEEDS	EXPECTED RESULTS	D & E & C MEASURES
<p>To identify the carbon pathways (e.g., net flux of GHG) that better reflect the GHG abatement potential of wetland restoration in models (from Case Pilots to large scale meta-analysis) and scenarios (e.g., global warming of 2°C and higher; RCPs) for climate and biodiversity. (Q1: WP3, WP4)</p> <p>To identify the management actions that best maintain and promote European wetlands medium to long-term climate change mitigation and adaptation capacity based on their potential profile as carbon sinks or GHG sources (Q2: WP2, WP5)</p> <p>To develop the management tools that can best support the wetland restoration targets of the new EU Nature Restoration Law and the implementation of the Land Use, Land Use Change and Forestry (LULUCF) Regulation with respect to the inclusion of wetland restoration activities (Q3: WP1, WP3; WP6)</p> <p>To provide guidance on concrete actions to foster mutually reinforcing actions and enhance co-benefits (social, ecologic, and economic) from wetland restoration, particularly in coastal areas, supported by decision making tools to advice prioritisation of public and/or private investment decisions concerning ecosystem restoration. (Q4: WP1, WP2; WP7; WP8).</p>	<p>An improved assessment of the status of EU wetlands that integrates available and new information layers as well as <b>scientific outcomes about GHG profiles</b>. European spatial explicit mapping of <b>restoration potential of wetland areas</b>, scaling up from three interlinked landscape unit scales (Case Pilots, River basin and EU natural wetlands) combined with three biotope scales <b>at Pan-European level</b> (natural wetlands, floodplains and peatlands).</p> <p><b>Implementation roadmaps</b> developed jointly with stakeholders with general principles for the EU level .</p> <p>An <b>online interactive platform and toolbox for decision making (DSS) of restoration actions and the sound estimation of GHG performance</b> as well as impacts on biodiversity and a wide range of ES (supported by Case Pilots' data and information; models embedding the socio-economic dimensions; machine learning and big data analytics; and advanced remote sensing techniques). <b>Policy recommendations</b> on the specific relevance of the main scientific, technical, and socio-economic findings tailored to the needs of different policies at EU level (on biodiversity, climate neutrality, water and land uses, and adaptation of coastal areas to climate change) and global processes (IPBES, UN-Decade for restoration, Ramsar Convention, IPCC, SDGs). <b>Awareness raising for social acceptability</b> about the need for restored wetlands and their long-term management as they represent an investment with significant net societal benefits, compared to existing alternative land management options.</p> <p>A sound plan for <b>RESTORE4Cs</b> outputs/results exploitation during and after the project, combined with a sustainability plan (ExSP).</p>	<p>Exploitation measures are always combined with dissemination and communication measures, to capture the attention and acceptability to use the outcomes by multiple audiences:</p> <p><b>Policymakers:</b> Sectoral and cross-cutting recommendations on the specific relevance of the main RESTORE4Cs findings to different policies will be published in a series of Policy Briefs for broad dissemination and uptake/exploitation by relevant communities of policymakers and decision-makers. Hands-on and applied support to decision-makers will be provided by developing the implementation roadmaps to assist national authorities and practitioners on the use of wetland restoration as a climate change mitigation strategy to address biodiversity and climate policy targets, beyond the project.</p> <p><b>Practitioners:</b> Provision of dedicated spaces on online platforms (e.g. LW ERIC Training and Community, GEOWetlands portal) where all target groups and stakeholders' representatives can interact with each other and get engaged on the <b>RESTORE4Cs</b> outputs/results (e.g., maps, indicators, GIS layers, models, scenarios, all at different geographical scales). These platforms have the added value of pre-existing the project and have a longer timespan so they can impact positively with a multiplier effect and being a reference point for the community they address. Training actions for the developed (DSS) toolbox versions and embed interactive models' series games to be used by the restoration community beyond the lifespan of the project.</p> <p><b>Scientists (R&amp;D):</b> Publication of (at least 40) scientific papers in ISI peer review journals, and interaction with scientists and technological staff in scientific and technical meetings.</p> <p><b>Schools:</b> Design and implementation of an activity targeting students through informal education and learning by doing approaches, stimulating them to learn more about ecosystems role for well-being of society through serious games.</p>

# Impact section: target groups and the 3 types of effects

TARGET GROUPS	OUTCOMES	IMPACTS
<p><i>Who will use or further up-take the results of the project? Who will benefit from the results of the project?</i></p> <p><b>Example 1</b> <b>9 European airports:</b> Schiphol, Brussels airport, etc.</p> <p><b>The European Union aviation safety agency.</b></p> <p><b>Air passengers (indirect).</b></p> <p><b>Example 2</b> <b>End-users:</b> consumers of electronic devices.</p> <p><b>Major electronic companies:</b> Samsung, Apple, etc.</p> <p><b>Scientific community</b> (field of transparent electronics).</p>	<p><i>What change do you expect to see after successful dissemination and exploitation of project results to the target group(s)?</i></p> <p><b>Example 1</b> <b>Up-take by airports:</b> 9 European airports adopt the advanced forecasting system demonstrated during the project.</p> <p><b>Example 2</b> <b>High use of the scientific discovery published</b> (measured with the relative rate of citation index of project publications).</p> <p>A <b>major electronic company</b> (Samsung or Apple) <b>exploits/uses the new product</b> in their manufacturing.</p>	<p><i>What are the expected wider scientific, economic and societal effects of the project contributing to the expected impacts outlined in the respective destination in the work programme?</i></p> <p><b>Example 1</b> <b>Scientific:</b> New breakthrough scientific discovery on passenger <u>forecast</u> modelling.</p> <p><b>Economic:</b> Increased airport efficiency Size: 15% increase of maximum passenger capacity <u>in European airports</u>, <u>leading</u> to a 28% reduction in infrastructure expansion costs.</p> <p><b>Example 2</b> <b>Scientific:</b> New breakthrough scientific discovery on transparent electronics.</p> <p><b>Economic/Technological:</b> A new market for touch enabled electronic devices.</p> <p><b>Societal:</b> Lower climate impact of electronics manufacturing (including through material sourcing and waste management).</p>

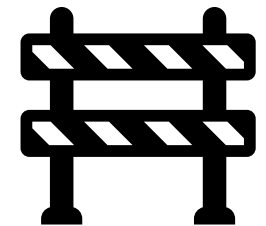
TARGET GROUPS	OUTCOMES	IMPACTS
<p><b>Target groups are based on a comprehensive stakeholder and user analysis:</b></p> <ul style="list-style-type: none"> <li>Science and researchers: individual scientists, research performing organisations and networks;</li> <li>Funders of research and RIs: national, European and international funding organisations;</li> <li>Peers in research and observation: monitoring and observation networks (in-situ and remote), global and European RIs in the environmental domain, e-infrastructures;</li> <li>Internal stakeholders: Site and platform coordinators &amp; operating institutions, National LTER network coordination teams;</li> <li>Decision-makers: national, European, international and supranational policy makers &amp; agencies;</li> <li>Business and industry: technology companies engaging with instrument development, environmental impact assessment consultants, land use planners etc.;</li> <li>Civil society and public: Citizen Science organisations, environmental NGOs, land and forest owners' organisations, the wider public.</li> </ul> <p>The scouting of eLTER services explicitly referred to these target groups and resulted in the prioritisation of key services of the Skeleton RI.</p>	<p><b>Through exploitation of results:</b></p> <ul style="list-style-type: none"> <li>Fully operational System Architecture enabling agile planning and selecting the most viable options towards eLTER ERIC implementation (based on if-then scenario testing and considering different options for the timing and composition of hosts for the eLTER services);</li> <li>A detailed plan to transition the eLTER RI from development to operations;</li> <li>Key cyberinfrastructure components for the Skeleton RI implemented to meet key user needs and reinforce attractiveness and momentum for RI extension;</li> <li>Final specification of key services (SLAs) to explore hosting options, calls and final decisions.</li> </ul> <p><b>Through dissemination of results:</b></p> <ul style="list-style-type: none"> <li>Empowered county membership with clear understanding of the added value of operational eLTER ERIC to secure agreements as Founding Member Countries;</li> <li>Consolidation of eLTER partnership with participating institutions/countries filling critical gaps, e.g. cyberinfrastructure development and hosting;</li> <li>Increased visibility of eLTER RI among the European and global scientific communities and research infrastructures as a benchmark for holistic ecosystem research;</li> <li>Contributions to European and global efforts towards interoperability and complementarity.</li> </ul>	<p><small>Associated with document Ref. Ares(2023)6305232 - 18/09/2023</small></p> <p><b>Overall &amp; European RI landscape:</b> The overall impact of EnRich will consist in pushing the eLTER ESFRI process towards successful completion as Skeleton eLTER RI, balancing between the vision, role in the ESFRI landscape and the changed framework conditions. The impacts strongly relate to the strategic goals of eLTER RI.</p> <p><b>Scientific:</b></p> <ul style="list-style-type: none"> <li>Information Clusters integrate curated legacy and SO data with data from other sources incl. RS to enable disruptive holistic ecosystem research considering multiple hazards;</li> <li>Increased capacity to predict long-term trends and system trajectories (upscaling, forecasting) based on improved understanding of ecosystem responses to environmental changes across European gradients;</li> <li>eLTER standards trigger collaboration and synergies at scientific, operational and strategic levels in response to environmental research challenges.</li> </ul> <p><b>Economic &amp; technological:</b></p> <ul style="list-style-type: none"> <li>eLTER as testbed for technological development and testing;</li> <li>Stimulating methodological innovation and user uptake, inter alia through the transition from SOs basic to prime methods;</li> <li>Concerted combination of distributed measurements and central analytics &amp; campaigns; Cost-efficient operations of eLTER RI at site- national and continental scales.</li> </ul> <p><b>Societal:</b></p> <ul style="list-style-type: none"> <li>Enhanced cooperation between disciplines, knowledge sources and stakeholders towards actionable knowledge (nature based solutions) for fair and equitable transitions;</li> <li>Advancement of socio-ecological research on human-environment interactions with transdisciplinary approaches, citizen science, stakeholder interaction &amp; participation;</li> <li>Provision of data, training and other key services to prepare for unknown environmental threats expected in global change.</li> </ul>

# Barriers

Describe any requirements and potential barriers - arising from factors beyond the scope and duration of the project - that may determine whether the desired outcomes and impacts are achieved.

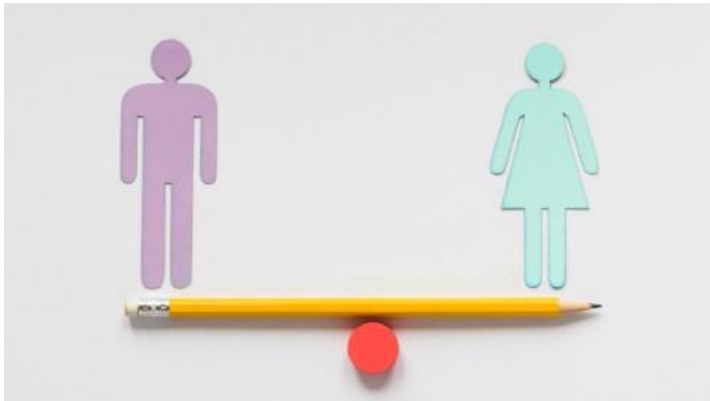
These may include, for example, other R&I work within and beyond Horizon Europe; regulatory environment; targeted markets; user behaviour. Indicate if these factors might evolve over time.

Describe any mitigating measures you propose, within or beyond your project, that could be needed should your assumptions prove to be wrong, or to address identified barriers.



# Gender equality and balance

Gender balance is the balance between women and men in research teams who will implement a project. Horizon Europe projects should aim to have an even, 50/50 participation rate of both men and women amongst teams and in leading roles. **In Horizon Europe, gender balance among researchers is a ranking criterion for proposals with the same evaluation scores.**



Gender Equality Plans as an eligibility criterion in Horizon Europe (Part A)

Home > Statistics > Performance indicators > SheFigures 2024 Data Tool

## SHE FIGURES 2024

Statistics on the State of Gender Equality in Research and Innovation

[Overview](#) [Interactive map](#) [Data explorer](#) [Export data](#) [Get help](#) [She Figures 2024 Report](#)

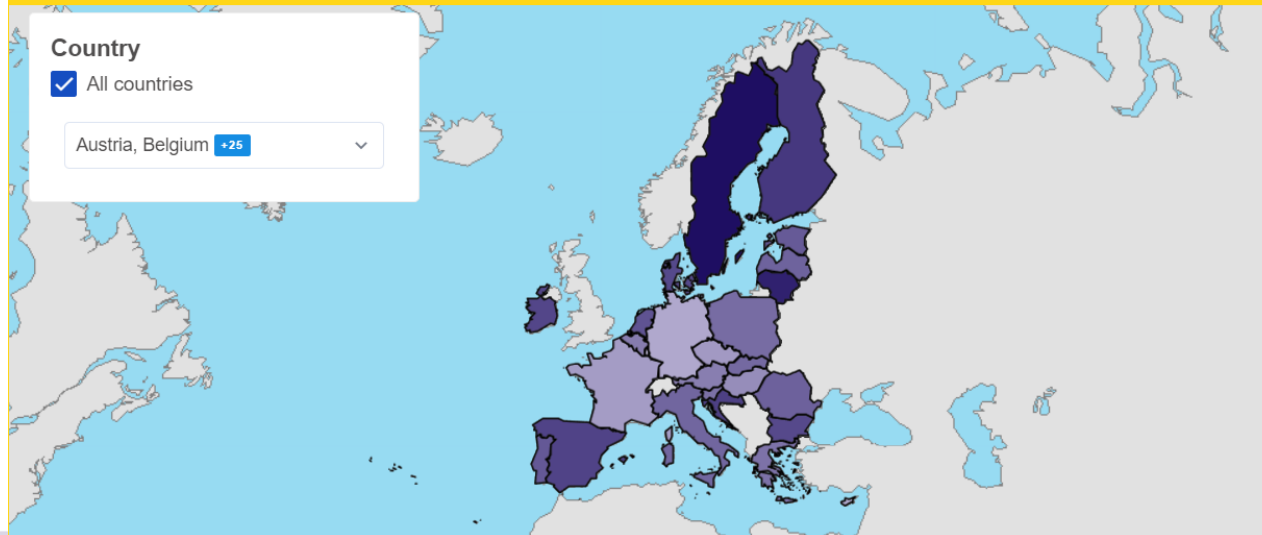
In line with the EU's commitment to achieving gender equality as a key priority, the She Figures publication has, since 2003, provided comparable statistics on the state of gender equality in research and innovation (R&I). Published every three years, it aims to track progress across the EU, countries associated with the EU Framework Programmes for R&I, and G20 countries for which data is available. A new addition for the 2024 edition is the She Figures Index, a composite indicator that serves as a comprehensive tool to measure the extent to which European Union Member States have achieved gender equality in the European Research Area (ERA). A map with the index score (both overall and score per dimension) for each country is displayed below. Click on Show more for further details.

[Show more](#)

### 2024 edition - overall index score

Country performance on gender equality in research and innovation

**Country**  
 All countries  
Austria, Belgium +25



Where we are

# Beyond the gender equality

## Gender Dimension

Ways in which the situation and needs of, and challenges facing, women and men (and girls and boys) differ, with a view to eliminating inequalities and avoiding their perpetuation, as well as to promoting gender equality within a particular policy, programme or procedure.

The gender dimension implies analysing and taking into account the possible differences between men and women (biological characteristics as well as the social and cultural features), boys and girls, or males and females, in the R&I content of the project.

**Integrating this gender dimension is now a mandatory requirement in all research and innovation projects across Horizon Europe, unless a topic explicitly specifies otherwise.**

## From the template

- Describe how the gender dimension (i.e. sex and/or gender analysis) is taken into account in the project's research and innovation content [e.g. 1 page]. If you do not consider such a gender dimension to be relevant in your project, please provide a justification.
  - ⚠ *Note: This section is mandatory except for topics which have been identified in the work programme as not requiring the integration of the gender dimension into R&I content.*
  - ⚠ *Remember that that this question relates to the content of the planned research and innovation activities, and not to gender balance in the teams in charge of carrying out the project.*
  - ⚠ *Sex and gender analysis refers to biological characteristics and social/cultural factors respectively. For guidance on methods of sex / gender analysis and the issues to be taken into account, please refer to <https://op.europa.eu/en/publication-detail/-/publication/33b4c99f-2e66-11eb-b27b-01aa75ed71a1/language-en>*

[Glossary of the European Institute for Gender Equality](#)

[See also REA's page on gender](#)

# Beyond the gender equality

## ◀ Sex

*Refers to biological characteristics (including genetic, hormonal, physiological, anatomical) that distinguish between male, female, and intersex (in humans) or hermaphrodite (in non-human animals).*

## **Gender**

*Refers to socio-cultural norms, identities and relations that, together, shape and sanction what are considered "feminine" and "masculine" behaviours, and structure societies and organisations.*

## **Intersectionality**

*Factors such as racial or ethnic origin, age, socioeconomic status, sexual orientation, or disability, combine with sex and gender to shape a person's or a group's experience and social opportunities, thereby influencing the form of discrimination and inequality encountered.*

In the R&I lifecycle, addressing sex and gender can appear challenging. However, examples in many fields show otherwise. For example, in pharmaceutical drug prescribing it can start with simple yet powerful steps, from including female and male cells, tissues and organisms throughout the testing process to reporting all data disaggregated by sex. These approaches can provide the knowledge needed to develop sex-specific dose adaptations of existing drugs, such as desmopressin or zolpidem, and may lead to gender-specific treatments in the future.

Researchers, physicians, pharmacists and patients should also consider gender differences in how symptoms are experienced and expressed. What is reported and how it is reported affect which diagnostic steps occur, and which medications are prescribed. ▶▶

[Source: REA's page on gender](#)

# Dissemination, Exploitation and Communication

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

- Describe the planned measures to maximise the impact of your project **by providing a first version of your ‘plan for the dissemination and exploitation including communication activities’**. Describe the dissemination, exploitation and communication measures that are planned, and the target group(s) addressed (e.g. scientific community, end users, financial actors, public at large).

*⚠ Please remember that this plan is an admissibility condition, unless the work programme topic explicitly states otherwise. In case your proposal is selected for funding, a more detailed ‘plan for dissemination and exploitation including communication activities’ will need to be provided as a mandatory project deliverable within 6 months after signature date. This plan shall be periodically updated in alignment with the project’s progress.*

*⚠ Communication measures should promote the project throughout the full lifespan of the project. The aim is to inform and reach out to society and show the activities performed, and the use and the benefits the project will have for citizens. Activities must be strategically planned, with clear objectives, start at the outset and continue through the lifetime of the project. The description of the communication activities needs to state the main messages as well as the tools and channels that will be used to reach out to each of the chosen target groups.*

*All measures should be proportionate to the scale of the project, and should contain concrete actions to be implemented both during and after the end of the project, e.g. standardisation activities. Your plan should give due consideration to the possible follow-up of your project, once it is finished. In the justification, explain why each measure chosen is best suited to reach the target*

*⚠ group addressed. Where relevant, and for innovation actions, in particular, describe the measures for a plausible path to commercialise the innovations.*

*⚠ If exploitation is expected primarily in non-associated third countries, justify by explaining how that exploitation is still in the Union’s interest.*

*⚠ Describe possible feedback to policy measures generated by the project that will contribute to designing, monitoring, reviewing and rectifying (if necessary) existing policy and programmatic measures or shaping and supporting the implementation of new policy initiatives and decisions.*

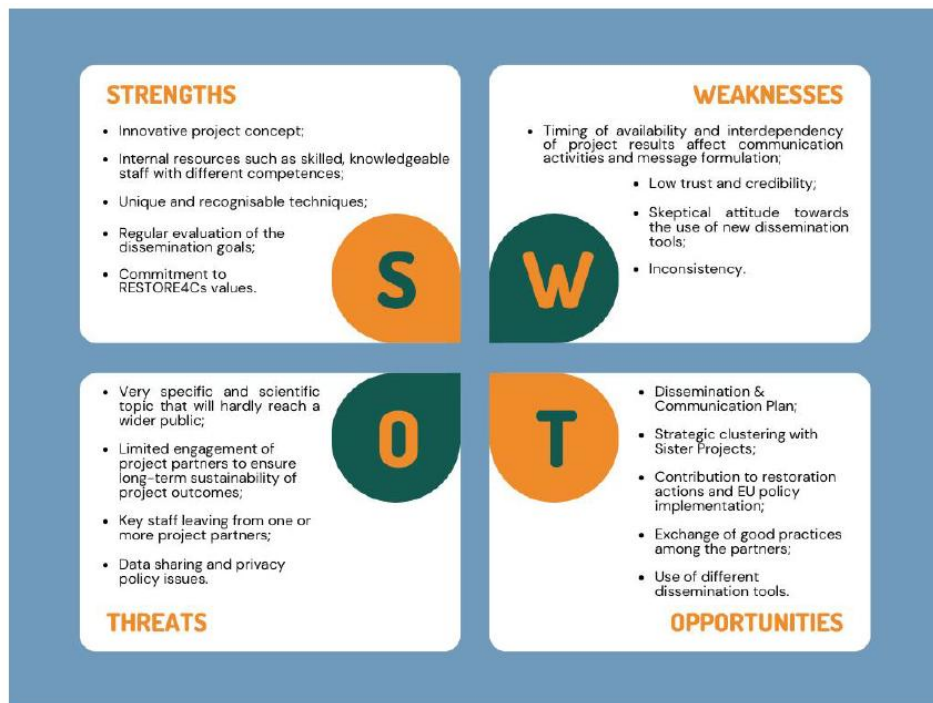
- **Outline your strategy for the management of intellectual property**, foreseen protection measures, such as patents, design rights, copyright, trade secrets, etc., and how these would be used to support exploitation.

*⚠ If your project is selected, you will need an appropriate consortium agreement to manage (amongst other things) the ownership and access to key knowledge (IPR, research data etc.). Where relevant, these will allow you, collectively and individually, to pursue market opportunities arising from the project.*

*⚠ If your project is selected, you must indicate the owner(s) of the results (results ownership list) in the final periodic report.*

[See the Guidance on DEC](#)

# Example of a DC plan



Executive Summary .....	6
1. Introduction.....	7
1.1 Project Background .....	8
1.2 Objectives of RESTORE4Cs Dissemination & Communication Plan .....	9
1.3 Scope and Expected Outcomes of RESTORE4Cs Dissemination and Communication Plan .....	11
2. Methods .....	13
3. Communication Strategy .....	13
3.1 Implementation Strategy.....	15
3.2 Project Identity.....	15
3.3 Project Logo.....	16
3.4 Graphical Layout Guidelines.....	18
3.5 Templates Toolkit .....	20
3.6 Dissemination & Communication Channels, Tools and Activities.....	21
3.7 RESTORE4Cs Website and Social Media .....	21
3.8 Scientific Publications – Press Media Campaign.....	248
3.9 Summer Schools .....	29
3.10 Video Documentary Series .....	30
3.11 Digital and Printed Material .....	30
3.12 Interaction with Sister Projects, Cluster Projects and Ongoing Initiatives.....	32
3.13 Events and Conferences Participation.....	37
3.14 Webinars and Serious Game Competition .....	40
3.15 RESTORE4Cs Final Conference .....	40
4. Key Messages .....	41
5. Key Audiences .....	43
6. Planning, Monitoring and Evaluation .....	48
6.1 Tools for Dissemination & Communication Monitoring and Reporting.....	48
7. Resources Committed .....	51
7.1 Dissemination & Communication Activities Timeline .....	52
8. Metrics .....	54
9. Conclusions .....	54

# Risks: example of a list of critical risks

## LIST OF CRITICAL RISKS

Critical risks & risk management strategy			
<i>Grant Preparation (Critical Risks screen) — Enter the info.</i>			
Risk number	Description	Work Package No(s)	Proposed Mitigation Measures
1	Some work is delayed to a degree that milestones likely cannot be reached in time, owing to late, low quality or missing work by a participant (Likelihood: (M), Severity: M).	WP2, WP9, WP3, WP4, WP8, WP5, WP1, WP7, WP6	All partners are highly motivated with a dedicated small core team. The simultaneous related activities of PPP and PLUS will yield important inputs to milestones. The efficient project coordination will ascertain that all participants at all times have detailed information about action items and due dates and partners will be reminded of their duties. If all else fails, work and budget will be re-allocated within the consortium.
2	Key personnel are overburdened and leave a project partner organisation (Likelihood: L, Severity: M).	WP2, WP9, WP3, WP8, WP4, WP5, WP1, WP7, WP6	The respective participant organisation will be encouraged to find a suitable replacement inside or outside the organisation. In case this is not possible, work will be reallocated, which is feasible in a consortium with many highly qualified specialists.
3	Delays in deliverables: due to inter-linkages between the Tasks, work in one Task could be delayed due to delay in preceding deliverables from other WPs. (Likelihood: M, Severity: M/H).	WP2, WP9, WP3, WP4, WP8, WP5, WP1, WP7, WP6	Regular Steering Committee meetings, joint WP workshops, project monitoring and efficient project management will ensure regular and effective exchange and hand-over between WPs. The two period planning enables finalising the key elements for the consecutive work package in the following period.
4	Inability of key shareholders to provide in a timely manner the necessary information and feedback for	WP8, WP5, WP7, WP6	Efficient planning, professional legal consultancy and the eLTER SA provide the framework for effective feedback and exchange. Work initiated in PPP will form a solid basis for

# Ethics self-assessment

## Table of contents

<b>1. Human embryonic stem cells (hESCs) and human embryos (hEs) (HE, DEP, EU4H and EDF).....</b>	<b>4</b>
<b>2. Humans (all EU Programmes).....</b>	<b>8</b>
<b>3. Human cells or tissues (all EU Programmes) .....</b>	<b>15</b>
<b>4. Personal data (all EU Programmes) .....</b>	<b>20</b>
<b>5. Animals (all EU Programmes) .....</b>	<b>27</b>
<b>6. Non-EU countries (all EU Programmes) .....</b>	<b>31</b>
<b>7. Environment, health and safety (all EU Programmes) .....</b>	<b>35</b>
<b>8. Artificial intelligence (all EU Programmes) .....</b>	<b>39</b>
<b>9. Other ethics issues (all EU Programmes).....</b>	<b>46</b>
<b>10. Crosscutting issue: potential misuse of results (all EU Programmes) .....</b>	<b>48</b>

[Guide in ethics self-assessment](#)

# Ethics self-assessment

## 4 - Ethics & security

### Ethics Issues Table

?

1. Human Embryonic Stem Cells and Human Embryos		Page
Does this activity involve Human Embryonic Stem Cells (hESCs)?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Does this activity involve the use of human embryos?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
2. Humans		Page
Does this activity involve human participants?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Does this activity involve interventions (physical also including imaging technology, behavioural treatments, etc.) on the study participants?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Does this activity involve conducting a clinical study as defined by the Clinical Trial <a href="#">Regulation (EU 536/2014)</a> ? (using pharmaceuticals, biologicals, radiopharmaceuticals, or advanced therapy medicinal products)	<input type="radio"/> Yes <input checked="" type="radio"/> No	
3. Human Cells / Tissues (not covered by section 1)		Page
Does this activity involve the use of human cells or tissues?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
4. Personal Data		Page
Does this activity involve processing of personal data?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Does this activity involve further processing of previously collected personal data (including use of preexisting data sets or sources, merging existing data sets)?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Is it planned to export personal data from the EU to non-EU countries?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
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?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Does this activity involve the processing of personal data related to criminal convictions or offences?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
5. Animals		Page
Does this activity involve animals?	<input type="radio"/> Yes <input checked="" type="radio"/> No	

6. Non-EU Countries		Page
Will some of the activities be carried out in non-EU countries?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
In case non-EU countries are involved, do the activities undertaken in these countries raise potential ethics issues?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
It is 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.)?	<input type="radio"/> Yes <input checked="" type="radio"/> 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.	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Is it planned to export any material (other than data) from the EU to non-EU countries? For data exports, see section 4.	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Does this activity involve <a href="#">low and/or lower middle income countries</a> , (if yes, detail the benefit-sharing actions planned in the self-assessment)	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Could the situation in the country put the individuals taking part in the activity at risk?	<input type="radio"/> Yes <input checked="" type="radio"/> 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) ?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Does this activity deal with endangered fauna and/or flora / protected areas?	<input type="radio"/> Yes <input checked="" type="radio"/> 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) ?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
8. Artificial Intelligence		Page
Does this activity involve the development, deployment and/or use of Artificial Intelligence-based systems?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
9. Other Ethics Issues		Page
Are there any other ethics issues that should be taken into consideration?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
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 <a href="#">How to Complete your Ethics Self-Assessment</a>		<input type="checkbox"/> ?

# Ethics self-assessment

## 8. Artificial intelligence (all EU Programmes)

### 8.1 Background

This section concerns projects with activities involving the development, deployment and/or use of artificial intelligence (AI)-based systems or techniques.

#### Examples:

*For EDF: The uses of AI in military environments could include: decision and planning support, collaborative combat, cybersecurity and digital influence, logistics and operational, robotics and autonomy, support services and target identification and engaging.*

The manner in which an AI solution is deployed or used may change the ethical characteristics of the system. It is therefore important to ensure ethics compliance even in cases where your project does not develop itself an AI based system/technique.

A Proposal for a Regulation laying down harmonised rules on artificial intelligence (Artificial Intelligence Act)<sup>9</sup> is currently pending adoption by the EU legislator. This Regulation, when it enters into force, may have effect on your project activities. Before its adoption and entry into force, we strongly encourage beneficiaries to use the [Assessment List for Trustworthy Artificial Intelligence \(ALTAI\)](#) to develop procedures to detect, assess the level and address potential risks.

### 8.2 How to address the issues


Your activities must comply with the ethics provisions set out in the Grant Agreement, and notably:

- highest ethical standards
- applicable international, EU and national law (in particular, the the principles and values enshrined in the EU Charter of Fundamental rights and the EU Treaties).

This requires specific ethically-focused approach during the development, deployment, and/or use of AI-based solutions.

Any use of AI systems or techniques should be clearly described in the project and you must demonstrate their technical robustness and safety (they must be dependable and resilient to changes).

## Requirements:

-  Human agency and oversight
-  Privacy and data governance
-  Transparency
-  Fairness, diversity and non-discrimination
-  Societal and environmental well-being
-  Accountability

## [Guide in ethics self-assessment](#)

# Ethics self-assessment

## 8. Artificial intelligence (all EU Programmes)

### 8.1 Background

This section concerns projects with activities involving the development, deployment and/or use of artificial intelligence (AI)-based systems or techniques.

#### Examples:

*For EDF: The uses of AI in military environments could include: decision and planning support, collaborative combat, cybersecurity and digital influence, logistics and operational, robotics and autonomy, support services and target identification and engaging.*

The manner in which an AI solution is deployed or used may change the ethical characteristics of the system. It is therefore important to ensure ethics compliance even in cases where your project does not develop itself an AI based system/technique.

A Proposal for a Regulation laying down harmonised rules on artificial intelligence (Artificial Intelligence Act)<sup>9</sup> is currently pending adoption by the EU legislator. This Regulation, when it enters into force, may have effect on your project activities. Before its adoption and entry into force, we strongly encourage beneficiaries to use the [Assessment List for Trustworthy Artificial Intelligence \(ALTAI\)](#) to develop procedures to detect, assess the level and address potential risks.

### 8.2 How to address the issues

Your activities must comply with the ethics provisions set out in the Grant Agreement, and notably:

- highest ethical standards
- applicable international, EU and national law (in particular, the the principles and values enshrined in the EU Charter of Fundamental rights and the EU Treaties).

This requires specific ethically-focused approach during the development, deployment, and/or use of AI-based solutions.

Any use of AI systems or techniques should be clearly described in the project and you must demonstrate their technical robustness and safety (they must be dependable and resilient to changes).

## Requirements:

-  Human agency and oversight
-  Privacy and data governance
-  Transparency
-  Fairness, diversity and non-discrimination
-  Societal and environmental well-being
-  Accountability

## [Guide in ethics self-assessment](#)

# Data Management Plan

A template is available in the «Guidance & Document» of the F&T portal.

In Horizon Europe the DMP is a specific deliverable to be submitted within 6 months from the start of the project.

Data produced in HE projects must be FAIR

# F A I R



Findable



Accessible



Interoperable



Reusable

(To be filled in and uploaded as deliverable in the Portal Grant Management System, at the due date foreseen in the system (and regularly updated).

⚠ The template is recommended but not mandatory. If you do not use it, please make however sure that you comply with the research data management requirements under Article 17 of the Grant Agreement.)

PROJECT	
Project number:	[project number]
Project acronym:	[acronym]
Project name:	[project title]

DATA MANAGEMENT PLAN	
Date:	[dd/mm/yyyy]
Version:	[DMP version]

## 1. Data Summary

*Will you re-use any existing data and what will you re-use it for? State the reasons if re-use of any existing data has been considered but discarded.*

*What types and formats of data will the project generate or re-use?*

*What is the purpose of the data generation or re-use and its relation to the objectives of the project?*

*What is the expected size of the data that you intend to generate or re-use?*

*What is the origin/provenance of the data, either generated or re-used?*

*To whom might your data be useful ('data utility'), outside your project?*

## 2. FAIR data

### 2.1. Making data findable, including provisions for metadata

*Will data be identified by a persistent identifier?*

*Will rich metadata be provided to allow discovery? What metadata will be created? What disciplinary or general standards will be followed? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.*

*Will search keywords be provided in the metadata to optimize the possibility for discovery and then potential re-use?*

*Will metadata be offered in such a way that it can be harvested and indexed?*

### 2.2. Making data accessible

*Repository:*

*Will the data be deposited in a trusted repository?*

# Open Science

## Open Science practices

Notable Open Science practices include:

- early and open sharing of research:
  - pre-registration, registered reports, data deposition in shared repositories, pre-prints
  - open collaboration within science and with other knowledge producers/users
- providing immediate and unrestricted open access to scientific publications, research data, models, algorithms, software, protocols, notebooks, workflows, and all other research outputs
- ensuring verifiability and reproducibility of research outputs
- practicing responsible research output management (publications, data, and other outputs) in line with the FAIR (Findable, Accessible, Interoperable, and Reusable) principles
- promoting public engagement in research and innovation, bolstering citizen science and enhancing public trust in science

[Source: R&I-Open Science](#)

# Open Science: OA publications

## WHY OPEN ACCESS TO SCIENTIFIC PEER-REVIEWED PUBLICATIONS?



### GOOD FOR SCIENCE

allows scientists to build on previous research results and avoids unnecessary duplication of effort  
improved quality and greater efficiency



### GOOD FOR THE ECONOMY

speeds up innovation  
faster progress to market



### GOOD FOR SOCIETY

makes research available to individual citizens and to non-profit organisations  
greater transparency

There are two ways to ensure immediate open access:

- Deposit your publication in a repository for scientific publications and ensure open access.
- Publish your research in an open access journal.

In both cases you have to deposit your publications in a repository, even when publishing in an open access journal.

Source: Open AIRE

# Open Science: OA publications



Research and Innovation

## Open Research Europe

Search

[Browse](#) [Gateways & Collections](#) [How to Publish](#) [About](#) [Resource Hub](#) [Blog](#)

# Open Research Europe

Open Research Europe is an open access publishing venue for European Commission-funded researchers across all disciplines, with no author fees.

Accelerate the impact of your research with rapid publication, open peer review, and indexing in databases such as Scopus and PubMed.

[Submit your Research](#)

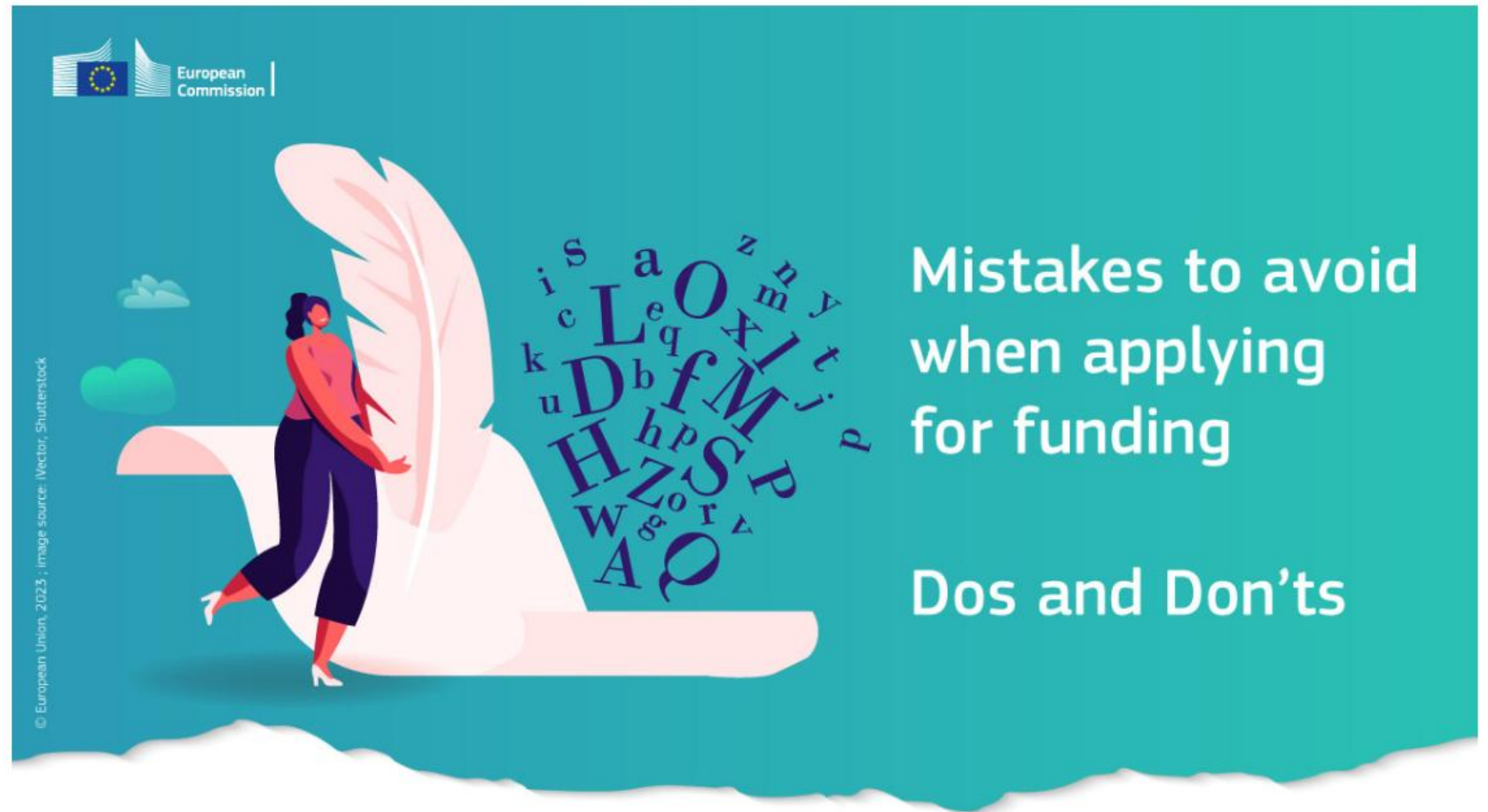
[How it works](#)

**A new service  
available**

[Source: Open Research](#)

# How to write a successful proposal?

Take a look at the REA's tips



© European Union, 2023 ; image source: iVector, Shutterstock

[https://rea.ec.europa.eu/news/common-mistakes-avoid-when-applying-horizon-europe-funding-2023-02-09\\_en](https://rea.ec.europa.eu/news/common-mistakes-avoid-when-applying-horizon-europe-funding-2023-02-09_en)



# THANKS!

**IR0000032 – ITINERIS, Italian Integrated Environmental Research Infrastructures System**  
(D.D. n. 130/2022 - CUP B53C22002150006) Funded by EU - Next Generation EU PNRR-  
Mission 4 "Education and Research" - Component 2: "From research to business" - Investment  
3.1: "Fund for the realisation of an integrated system of research and innovation infrastructures"

