# Project Management Handbook (D3.10)

**Energytran**

Research infrastructures cooperation for energy transition between European and Latin American and the Caribbean countries.

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[1] The methodology used to write this Project Management Handbook has been based on the model and guide of the PM² Guide V3.0, which is committed to the improvement of the PM² Methodology project management.

# 1.About the Project Management Handbook

The *Project Management Handbook* documents select approach for implementing the project goals. It also highlights the key controlling processes to be used, the project policies and rules, and the overall management approach.

The *Project Management Handbook* is an important document since it defines the outputs of the planning (i.e. it defines the plans necessary for managing the project as well as to what extent they should be customize or/and tailored).

The *Project Management Handbook* becomes the basis for managing the project throughout its lifecycle and is an important point of reference for all project members and stakeholders. The *Project Management Handbook* is kept up to date throughout the life of the project. During the Closing Phase, the *Project Management Handbook* becomes an important point of reference for the Project-End Review Meeting and should be properly closed and archived.

# 2.Project Overview

## 2.1Project summary

The European Union and Latin America and the Caribbean (EU-LAC) partnership in energy transition -EULAC ENERGYTRAN - intends to strengthen the cooperation between the EU and LAC research infrastructures to tackle a common challenge: how to get a clean, sustainable, and just energy transition. This project pursues its goal through the exchange, generation, and transfer of knowledge among entities from a multidisciplinary approach (technological, environmental, social) and through the support to the development of public policies and regulatory frameworks towards climate neutrality. This general goal will be achieved by four specific goals that respond the multidisciplinary approach, in tune with the complexity of the energy transition. Therefore, the project supports technological R&I to overcome the existing limitations of renewable energies but acknowledging these developments may have an environmental and social impact which must be addressed. This proposal wants to come up with ideas about how to achieve an energy transition compatible with environment protection and social justice. Energy transition is at the top of the political agendas of both regions, EU and LAC, so this project may contribute to consolidating it as a priority area of interregional scientific cooperation. This project will be carried out by a heterogenous, and interdisciplinary consortium composed of eleven partners with wide presence in the EU and LAC. They include ERICS and an international organization, among other entities, from different areas of knowledge. This way the complexity of the energy transition is better tackled. Under this scheme, EULAC ENERGYTRAN will create a network of an interconnected and sustainable EU and LAC research infrastructures that contributes to energy transition by technological, social, and sustainably strengthening the performance of entities through shared knowledge and close interactions among researchers. This common effort will mean a step forward, in both regions, to reach a society that needs to be resilient.

## 2.2. Project Stakeholders

This project will be carried out by a heterogenous and interdisciplinary consortium composed of eleven partners from Argentina, Chile, Costa Rica, Mexico, Portugal and Spain, being also relevant the geographic presence of the consortium in Europe (apart from Spain and Portugal: Belgium, Bulgaria, Cyprus, France, Germany, Greece, Italy, the Netherlands and Slovenia) and in LAC (apart from Argentina, Chile, Costa Rica, Mexico, the rest of member states of the OEI).

In the framework of the project, 5 levels of stakeholder's involvement have been identified, being presented below:

1.  Participants in the project: the project is formed by a Consortium of 11 entities from EU and LAC. It is characterized by the disciplinary and interdisciplinary knowledge and by the complementarity of its partners. The consortium is formed by different kind of entities whose main areas of research are related to the topic of the project, creating cooperative dynamics in a structure that addresses the four specific objectives.

| Short name | Institution | Type of Institution | Country |
|---|---|---|---|
| OEI | ORGANIZACION DE ESTADOS IBEROAMERICANOS PARA LA EDUCACION LA CIENCIA Y LA CULTURA | International Organization | Spain |
| EU-SOLARIS ERIC | EUROPEAN SOLAR RESEARCH INFRASTRUCTURE FOR CONCENTRATED SOLAR POWER | European Research Infrastructure Consortium (ERIC) | |
| LifeWatch | ERIC E-SCIENCE EUROPEAN INFRASTRUCTURE FOR BIODIVERSITY AND ECOSYSTEM RESEARCH | | |
| CSIC | AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS | Public research center | |
| IPS | INSTITUTO POLITECNICO DE SETUBAL | Higher education institution | Portugal |
| INESC TEC | INESC TEC - INSTITUTO DE ENGENHARIADE SISTEMAS E COMPUTADORES, TECNOLOGIA E CIENCIA | Public technological and research center | |
| PUC | PONTIFICIA UNIVERSIDAD CATOLICA DE CHILE | Higher education institution | Chile |
| TECNM | TECNOLOGICO NACIONAL DE MEXICO | Higher education institution | Mexico |
| UNSAM | UNIVERSIDAD NACIONAL DE GENERAL SAN MARTIN | Higher education institution | Argentina |
| UNNE | UNIVERSIDAD NACIONAL DEL NORDESTE | Higher education institution | |
| CENAT | FUNDACION CENTRO DE ALTA TECNOLOGIA | Public Technological Centre | Costa Rica |

*Figure 1: List of participants*
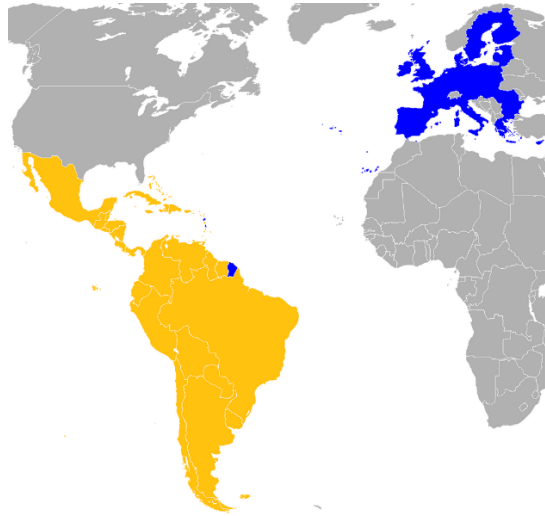
*Figure 2. Map of participants regions EU-LAC*

2. Stakeholders involved on the energy sector transformation, through the Quadruple Helix approach of innovation, that recognizes four major actors in the innovation system involved on the energy sector transformation, both in Europe and in LAC, that settle the goals of the action:

- **Policy makers**: as intergovernmental organization, in response to the ministers' mandate entrusted and in order to extend the cooperation beyond this project, we will assure, through personal communications, that LAC and European policy makers are conscious of the activities in favour of a green and just energy transition this consortium is working on. The OEI will also share with the governmental representatives the results of the projects in the meetings or events organized or promoted.

- **Researchers**: following the principles of open data and good practices, this project will try to reach other RI and individual researchers with the objective of expanding the work in energy transition initiated here. We also want other LAC and European researchers being aware of the benefits of working interregional, promoting the role of European Union in science and the international cooperation as a methodological way to address the generation of know how about clean and just energy transition. This bi-regional cooperation EU-LAC proposes a stronger and modernized strategic partnership, through reinforced political engagement, boosting trade and investment, and building more sustainable. With the aim of addressing a common challenge such as the energy transition through the exchange, generation, and transfer of knowledge among EU and LAC research infrastructures from a multidisciplinary approach (technological, environmental, social) and to support the development of public policies and regulations frameworks promoting climate neutrality and a clean, sustainable, and just transition of the energy sector to advance to a resilient society.

- **Civil Society**: the OEI works actively in favour of science communication, citizen science and social appropriation of knowledge. The OEI will open those working lines to the EULAC ENERGYTRAN to train and improve the researcher's communication skills. In addition, awareness of our society related to the ecological crisis will be included among the project activities implementation through an integral perspective. Finally, partners will ddevelop multi-actor operative strategies creating research communities and ecosystems of innovation and contributing to an in-depth dialogue between civil society and researchers. The increasing engagement and participation of civil society in policy planning brings knowledge and advice to decision-making processes, whether at local, regional, or national level. Thus, within the framework of this project, we consider the participation of civil society to be relevant at three levels: I/ bringing scientific cooperation closer to civil society; II/the role that research has in raising social awareness about the need to promote climate neutrality and just transition of the emergent sector to advance to a resilient society and III/ to address a common challenge such as the energy transition through the exchange, generation, and transfer of knowledge among the societies.
- **Enterprises**: a big part of the energy sector is formed by energy enterprises, that is why a specific effort will be made to ease these actors are informed of the results of the project, as well as aiming their active participation.

3. This project will also be carried out by two European Research Infrastructure Consortium (ERIC), as a specific legal form that facilitates the establishment and operation of Research Infrastructures with European interest. These two ERICS relies on a multi-level governance model to ensure effective decision-making, smooth management, scientific soundness and transparency of processes:

- European Solar Research Infrastructure for Concentrated Solar Power (EU-SOLARIS) , reinforce and expand the joint activities amongst the research centres at member countries in Spain, France, Germany, Cyprus and Portugal. Its member are specifically: General Secretariat for Research, Spanish Ministry of Science and Innovation (Spain); Direction Générale de la Recherche et de l'Innovation au Ministére de L'Enseignement Superieur, la Recherche à l'Innovation (France); Bundesministerium für Wirtschaft und Energie; Referat II C6 Energieforschung – Projektförderung und Internationales (Germany); Directorate for Research and Innovation at the Deputy Ministry Research, Innovation and Digital Policy (Cyprus); Fundação para a Ciência e a Tecnologia (FCT) (Portugal).
- LifeWatch ERIC is a distributed research infrastructure consortium composed of eight European Union Member States. LifeWatch ERIC's members operate from national nodes, known as Distributed Centres, while its Common Facilities are located in three Member States: Spain (Statutory Seat & ICT-Core), Italy (Service Centre) and the Netherlands (vLab & Innovations Centre).

4. Collaborative entities not formally declared as associated partners but involved on the project as collaborated entities, as entities that has a link or contribution with the project and expertise in many of those main areas, mentioning at least, the Universidad de Magallanes de Chile, the Universidad Católica del Norte de Chile and the Joint Research Centre (JRC). Along the project implementation, other institutions would be involved and collaborate with the Consortium as national and international level with their own resources.

# 3.Project Approach

## 3.1.Project Lifecycle

### *Present the project management lifecycle (phases) to be used in the project*

The ENERGYTRAN project has been developed within the framework of Result-based management (RBM) for "Project Design for Impact" under the Horizon Europe Programmes. RBM is **a programme / project life cycle** approach focused on achieving implementing performance measurement, learning adapting, and reporting on performance including outcomes. This framework proves beneficial as it centers on attaining results and establishing a logical matrix as the foundation for a planned project intervention. RBM is a comprehensive management approach primarily concerned with achieving results. Results are the effects of an intervention occurring on three levels: outputs, outcomes, and impact.
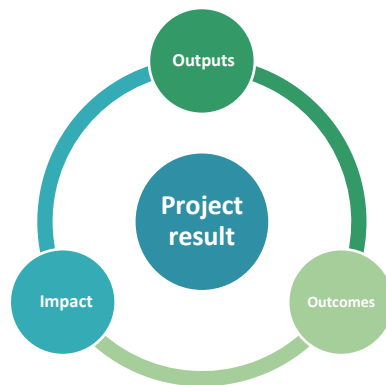


*Figure 3- Result -Based Management approach*

- Outputs are products that directly results from an intervention.
- The next level of results are outcomes, which present the mid-term effects of an intervention. Outcomes are foreseen changes that build upon outputs but are not solely depended on them and thus are harder to control.
- The third level of results is the impact, which is the ultimate reason why an intervention is taking place. Thus, the impact is the long-term change that stemmed out of a project intervention.

However, it is important to highlight that when thinking about impact, taking a human-centered approach is quite important. This approach allows us to think from the standpoint of project beneficiaries.

Given that the majority of Horizon Europe projects involve knowledge creation, determining the scientific impact in the field is typically straightforward. However, a crucial next phase involves identifying the industrial, societal, economic, and technological impacts as well.[2]

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[2] https://unite4horizon.eu/result-based-management-for-project-design-for-impact-in-the-horizon-europe-programmes/

In accordance with a Result-based Management (RBM) approach, the EULAC ENERGYTRAN project management life cycle will progress through distinct phases with a focus on achieving predetermined results.

Below we present, how the project will move forward from one phase to the next:

### 3.1.1.2 -Result Planning Phase (EXPECTED RESULTS AND NEEDS)

The project begins with a comprehensive planning phase focused on defining desired key element of the impact through the expected results, outputs, outcomes, and impact, that have already been identified. This involves objectives aligned with the project's goals and stakeholders' needs. Clear indicators and targets are established to measure progress and success.

In this regard, a series of results were initially identified in the project to be achieved, establishing a list of Work Package (WP) to address the specific objectives, assigned to each stakeholder participating in the project and for which they are leading and responsible. These WP were clearly defined, with specific objectives, expected deliverables, allocated resources, and set deadlines.

### 3.1.1.3-Result Implementation Phase (Work package implementation)

Once the result planning completed, the project moves into the implementation phase of the WP, where activities are executed according to the project plan. Resources are also allocated efficiently to achieve the defined results. Regular monitoring will be conducted to ensure that activities are on track and that outputs are being delivered as planned. To ensure that project partners and stakeholders successfully execute, and complete assigned WPs, diligent monitoring and implementation of several key steps are required in this phase:

### Internal Communication and alignment.

A clear communication with each partner's expectations and responsibilities in relation to assigned WPs is essential. In this regard, the OEI will organize periodic meetings:

- Bilateral meetings between the coordinator and one partner, between the WPL and the partners involved in the WP, and also among partners: When some partner needs to do it.
- Working meeting by WP every month: Among the WP leader and the institutions implicated in each WP.
- Steering Committee formed by the coordinator and one representative from each WP leader: in order to carry out a follow-up of the processes and the line of work, at least one by two months.
- General Assembly: at least one by 6 months.

A chronogram of the periodic meetings will be shared with the different institutions, in order to plan their participation with sufficient time in advance and to be able to move forward jointly in the execution of the different activities and actions of the project.

The OEI will assure that the communication among the members of the consortium is taking place providing support to entities implicated at any time. This internal communication may take place via email, trough virtual calls and periodic meetings.

In parallel a Kick-off meeting format will take place in-person (6th and 7th of March 2024, in Madrid, Spain) with all the partners of the consortium, with the goal of meeting each other, organizing the consortium, defining the concrete actions of the Work Packages and its calendars. Prior to the Kick-off Meeting (KOM), the Project Management Handbook will be sent to the project partners for their review and comments, with the aim of subsequently being presented in person during the KOM.

Finally in terms of communication, at the end of the project, together with the final international event, a final internal meeting in-person will be organised in a LAC country, in order to support the evaluation of the whole project and the organization of its sustainability.

### Resource allocation

Each institution participating in the project has asigned the necessary resources (personnel, financial, etc.) to carry out their WPs effectively.
The OEI, will coordinate with partners to resolve any resource limitations that may arise during the execution of WPs, in accordance with the compromises acquired in the Grant Agreement (GA).

### Establishment of deadlines and milestones

Taking into account that the financing by the European Commission is a Lump-sum payment where the costs of beneficiaries are no longer reimbursed based on financial reporting, all the institutions involved in the project have the commitment, as well as the responsibility, of presenting their corresponding deliverables on time based on their established deadlines.

Failure to be responsible of presenting the deliverables on time by the institutions involved will imply a delay in the execution of the project and a breach towards the European Commission, where the OEI is ultimately responsible for the deliverables to the Commission. To avoid reaching this point, as indicated above, the OEI will establish mechanisms to closely monitor the actions of the leaders responsible for each WP through meetings and monitoring reports.

For their part, the leaders of the WP undertake to communicate with sufficient advance notice of the date established as the delivery deadline, any incident that may be foreseen in the execution of their deliverable, so that the OEI and the General Assembly (if it is necessary) can anticipate any corrective action that may be taken necessary in this sense.

For the reasons previously mentioned in this point, it is important to review and permanently keep in mind the dates of each deliverable by each of the partner institutions responsible for every WP and deliverable, as well as the intermediate milestones that are necessary, to monitor progress.

### Continuous monitoring and tracking

Specifically, within the framework of the project to monitor actions, a chronogram of regular meetings will be established with those responsible for each WP, as well as with the members of the Steering Committees mechanisms to track each partner's progress in executing their tasks to develop deliverables and activities of each WP, but also to identify any issues or challenges, and discuss potential solutions.

In project management, the path to follow is the chain of activities that results in a fully completed project. If any of the tasks or activities were delayed, the schedule of the entire project would be compromised. Therefore, it is necessary to identify possible blockages that may prevent the completion of a project activity, caused by the dependency between some partners on others. In order to avoid the appearance of bottlenecks due to this dependency, communication from the leaders of the different WPs to the Steering Committee will be essential, in order to make adjustments at the chronogram level as soon as possible.

The meeting chronogram will be discussed, agreed and validated during the kick-off meeting, and sent to the partners afterwards.

### Coordination and collaboration
This project is divided into 7 Work Packages (WP). Each thematic WP is led by a specialized partner of the consortium (OEI, EU-SOLARIS, LIFEWATCH, CSIC), although all members of the consortium participant actively in the WP depending on their expertise. Each area (technology, environmental and social), as it was reflected, is divided into two work packages: one integrated by the mobility actions and the other one by the research and innovation activities.

Actually, this cross-participation among WP is going to be fostered by the OEI as responsible of coordinating the project.

In this regard, the OEI as project coordinator will:

- led the consortium to maintain coherence with its role and basically oriented to provide political transfer and coordination among EU and LAC countries for improving research cooperation for the energy transition and public policies related to this area.
- promote and encourage collaboration and coordination among partners to ensure harmonious execution of WPs.
- facilitate communication and information sharing between partners to avoid duplication of efforts and maximize efficiency.
- request, within the framework of the project, regularly follow up progress reports to each partner as feedback of the execution progress. This point will be developed more specifically in point 3.4. Specific Project Management Rules.

### 3.1.1.4-Result Monitoring and Evaluation Phase

As a part of the project implementation, monitoring and evaluation will take place to assess progress towards achieving the defined results. Key performance indicators will be tracked to ultimately measure the impact. Evaluation activities help identify successes, challenges, and areas for improvement.
In this sense and, in order to develop a monitoring and evaluation system, during the project, the OEI, as leader of the coordination of the project, will demand to the rest of the partners four kind of reports:

1. Initial report (6 month after the start of the project): as a specific definition of the development of each partner.
2. Intermediate report (12 month after the start of the project): this report will be one per partner showing the tasks developed.
3. Monitoring report (18 month after the start of the project): this report will be one per partner showing the tasks developed.
4. Final report (24 month after the end of the project): Final report that gathers a final resume of the activity carried out by each partner.

To facilitate this task, OEI counts with an open software to the project management (GesprOEI) based on the methodology GONG.

Finally, an evaluation will be carried out in order to determine the success of the project, detect errors and chance to improve, as well as new opportunities of collaboration.

### 3.1.1.5-Result Reporting, Recommendations and Learning Phase

Based on the monitoring and evaluation findings, the -coordinator of the project enters the reporting, recommendation and learning phase.

The development of the four types of reports (initial report for each work package; intermediate reports per WP; final report as final summary of the WP by each partner) and the deliverables' results, will give rise to the elaboration of policy recommendations and guidelines intended for European and LAC researchers and policy makers about a clean and just energy transition, and about how to improve scientific cooperation between both regions, taking into account the work and learnings extracted from the project.

Policy recommendations will be prepared and shared with stakeholders to communicate achievements, challenges, and lessons learned based on the deliverables' results, international events (online and final event) and the conclusions of the thematic events. Feedback mechanisms will be established to gather input from stakeholders and incorporate it into decision-making processes.

The achievements, challenges, and lessons learned based on the deliverables' results, will be shared in the forums in which the OEI normally participates from partners such as CELAC, UNESCO, ECLAC, OECD…etc.

### 3.1.1.6-Result Adaptation and Management Phase

As the project progresses, adjustments may be necessary to ensure that it remains on track to achieve its intended results, where flexibility and agility are key principles in managing adaptations while staying focused on achieving results.

Throughout the project life cycle, there is a continuous feedback loop, with each phase informing the next. Lessons learned from monitoring, evaluation, and adaptation activities are used to refine planning and implementation processes, ultimately leading to improved project outcomes and impact.

To facilitate the planned work-stages or iterations, the planned approach and key stage, within the framework of the project, a specific Gantt Chart has been developed; it will help all partners to visualize the components of the project and monitor the project and its organization into smaller and more manageable tasks, scheduled in the timeline that the project lasts (24 months). The Gantt chart is a graphic tool whose objective is to show the expected dedication time for different tasks or activities over a given total time.

### 3.1.2 The interaction between technological, environmental, and social mobilities and research and innovation actions for technology, sustainability and the social dimension as intellectual products

The framework of this project has been carried out through the conception of specific WP, aligned with the different dimensions of the project as follows:

### Technological dimension

Work Package 1 (WP1): dedicated to technological mobilities, to promote exchange and generate knowledge in terms of Scientific Cooperation Networks between LAC R&I entities and European research infrastructures capable of creating innovative solutions to transform the energy sector, but also to promote dialogue. with a direct impact on social needs.

Work page 2 (WP2): dedicated to Research and innovation actions in Technology, to promote the exchange and generation of knowledge between Eu and LAC research infrastructures.

### Environmental dimension

Work package 4 (WP4): dedicated to mobilities for sustainability in the energy transition, through the training of researchers from research infrastructures in Europe and R&I entities in LAC, on how to incorporate environmental care in their research on energy technologies, through the promotion of Scientific Cooperation Networks between LAC R&I entities and European research infrastructures.
Work Package 5 (WP5): dedicated to Research and Innovation Actions for Sustainability, to exchange knowledge related to scientific results and data on energy transition between LAC and EU researchers.

### Social dimension

Work Package 6 (WP6): dedicated to social impact mobilities to promote social methods and public policies, by training researchers from European research infrastructures and R&I entities in LAC, on how to incorporate the social perspective in their research on energy technologies.

Work Package 7 (WP7): Research and innovation actions for social impact, to promote social methods and public policies to make the energy transition highly beneficial for societies by approaching it from a comprehensive perspective, through ethnographic research and subsequent publication on the social impacts of energy transition into specific policy case studies focused on lithium, green hydrogen, and renewable energy.

Globally, creating new high-quality knowledge, strengthening human capital in Research and Innovation (R&I) and promoting the dissemination of knowledge and mobilities in Open Science will allow exchange and knowledge, the consolidation of cooperation links and the strengthening of scientific capabilities, among the teams of the institutions between the EU and LAC.

For their part, the different actions in terms of research and innovation actions (in technology, environmental and social), together with the experience and knowledge generated through the different mobilities, will give rise to added value by promoting cooperation between research teams between countries and disciplines, promoting bi-regional dialogue to strengthen associations through multilateral dialogue, and on the other hand will lead to:

- Generate policy reports with new, high-quality scientific knowledge, addressing EU policy priorities and global challenges through R&I.
- Strengthen the empirical basis for R&I policy.
- Support for policy makers of the European Research Area (ERA) and the development of LAC institutions, simultaneously promoting gender equality, ethics, and integrity.
- Strengthen the adoption of scientific cooperation in society.

### 3.1.3 The interaction between the different technological, sustainable and social dimensions and the coordination WP3

Regarding WP 3, its objective is to promote scientific cooperation between the EU and LAC in energy research infrastructures, in an ethical and quality manner to promote the coordination of international projects, propose recommendations and guidelines on how to carry out a transition energy destined to be transferred to LAC and EU policy makers. In this sense, this work package includes all the activities on coordination, management, exploitation and dissemination with respect to the rest of the Work packages (WP 1, WP 2, WP 4, WP 5, WP 6, WP7) as well as the exchange, generation and transfer of knowledge among entities from the focus on technological, environmental and social dimensions, and through support for the development of public policies and regulatory frameworks towards the energy transition.
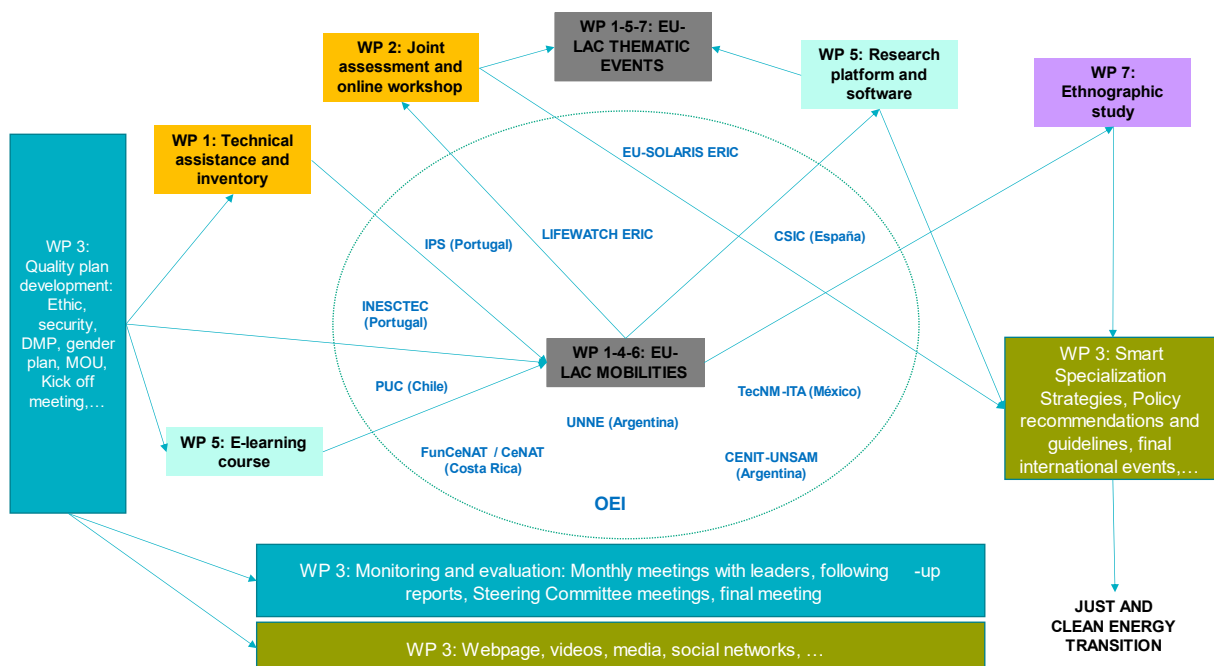
In the project, the planned approach will refer to the structured method used to outline, organize, and execute the project activities, in our case, with the Work-Packages, in accordance with predefined objectives, timelines, and resources. This planned approach will involve several key stages or iterations with the specific outputs, that contribute to the overall progress and success of the project.

Below, we present breakdown of the planned approach and key stage/iteration outputs that the project expects to follow in terms of outputs:

**Output 1. Grant Agreement**
Where the project has been formulated and formalized, in a formal document, the Grant Agreement, which defines:

- the project scope, objectives, stakeholders and the initial high-level plan.
- stakeholder analysis, with the identification of the project stakeholders and their roles.
- and an initial risk assessment: identification of potential risks and initial risk mitigation strategies.

Once the initial stage has been identified and agreed upon, we move on to the:

**Output 2. Project management Handbook and Quality Assurance Plan**

- as a comprehensive document that describes the project objectives, scope, schedule, budget, resources, presentation of the deliverables in a timely manner as established in each WP by each leader, a communication plan, and risk management strategies. This document can be considered the user manual on how project partners should proceed.
- Monitoring of key performance indicators (KPIs), that will be used to measure project performance against predefined objectives.
- Risk Register Updates: Updates to the risk register based on ongoing risk assessments and mitigation efforts.
- Quality Assurance Reports: Reports on quality control activities and adherence to quality standards.

**Output 3. Final report**

- Project Closure Report: as a formal documentation that must be presented, that summarizes project achievements, lessons learned, and recommendations for future projects.
- Lessons Learned Documentation: capturing the insights and best practices gained from the project for future reference.
- Final Deliverables: completion and delivery of all project deliverables to stakeholders.
- Contract Closure: formal closure of contracts, agreements, or partnerships related to the project.
- Stakeholder of the Consortium feedback: solicitation of feedback from stakeholders on their satisfaction with project outcomes and processes.

These planned approach and key stage/iteration outputs try to provide a structured framework for managing projects effectively, ensuring that the project objectives are met on time, within budget, and to the satisfaction of stakeholders.

### 3.2 Specific Project Management Rules

Below we present specific project management rules that will apply to the project. The purpose of documenting project rules is to establish an acceptable set of "rules of conduct" that will facilitate the best management and execution of the project among all members.

### 3.2.1. Engagement Protocol for each stakeholder

This project is composed by a consortium of eleven entities from EU and LAC. It is characterized by the disciplinary and interdisciplinary knowledge and by the complementarity of its partners. In this sense we find a diversity of roles, responsibilities and geographic presence for each stakeholder participating in the project that is crucial to define for ensuring clarity, accountability, and effective collaboration.

**Granting authority:** European Research Executive Agency (REA) under the powers delegated by the European Commission.

- Role: Granting authority, provide strategic direction, funding, and support for the project.
- Responsibilities:
    - Approve project charter and overall project objectives.
    - Secure necessary resources and budget.
    - Champion the project within the organization.
    - Resolve escalated issues and provide guidance to the project coordinator.

**Project coordinator: OEI**

- Role: Oversees the planning, execution, and completion of the project. In charge of the Management and Support Team (MST).
- Responsibilities:
    - Develop project management plan, including scope, schedule, budget, and resources.
    - Coordinate project activities and manage project team members.
    - Support the day-to-day management, monitoring, and administration of WP.
    - Organize the required meetings of the consortium, assist in the definition of the agenda and provide minutes of the meetings.
    - Provide assistance to all partners as regards administrative, financial, and regulatory issues and the relationship with the European Commission.
    - Collect and review all documentation required to monitor that the project is being implemented adequately and the WP tasks are being carried out.
    - Coordinate the preparation of all reports to the European Commission and all internal reporting activities.
    - Monitor project progress, performance and actions are implemented properly.
    - Provide input and feedback throughout the project lifecycle.
    - Request and review any documents or information required and verify their quality and completeness before passing them on to the granting authority.
    - Submit the information required to update the European Portal, deliverables and reports to the granting authority.
    - Communicate with stakeholders and report/feedback on project status.
    - Act as the intermediary for all communications between the consortium and the granting authority.
    - Identify and mitigate project risks.
    - Ensure adherence to quality standards and project requirements.
    - Facilitate problem-solving and decision-making.

**Project Team Members: Partners institutions**

**ERICs: EU-SOLARIS and LIFEWATCH**
**Technological and research centres: CSIC and INESCTEC, FUNCENAT**
**Higher education institutions: IPS, PUC, TECNM-ITA, UNNE and UNSAM**

- Role: Institutions responsible for executing specific tasks assigned and identified in each Work Package for which they are responsible and leading, and deliverables within the project.
- Responsibilities:
  - The beneficiaries, as signatories of the GA, are fully responsible towards the granting authority for implementing it and for complying with all its obligations.
  - They must implement the GA to their best abilities, in good faith and in accordance with all the obligations and terms and conditions it sets out.
  - They are jointly responsible for the technical implementation of the action. If one of the beneficiaries fails to implement their part of the action, the other beneficiaries must ensure that this part is implemented by someone else.
  - Complete tasks according to project requirements and deadlines included in the GA.
  - Submit to the coordinator in good time: the contribution to the deliverables and technical reports, as well as any other documents or information required.
  - Collaborate with the OEI, as project coordinator, to achieve project objectives.
  - Provide regular progress updates to the OEI as project coordinator.
  - Participate in project meetings and contribute to discussions and decision-making.
  - Identify and report project risks or issues as they arise, with sufficient time and advance notice to be communicated to project management (OEI) in order to take the appropriate actions.
  - Partners institutions must keep — at all times, during the action or afterwards — their information stored in the Portal Participant Register up to date, in particular, their name, address, legal representatives, legal form and organization type. OEI will update all the information related to the project management and project results thanks to the information provided by partners on time.
  - They must have the appropriate resources to implement the action under their own responsibility and in accordance with GA. If they rely on affiliated entities or other participants, they retain sole responsibility towards the granting authority and the other beneficiaries.

## Consortium

Based on the basic guidelines for an Horizon Europe consortium. The Consortium project is comprised of at least 1 partner from an EU member state and at least 2 additional partners from 2 other different countries coming either from EU member states and/or associated countries. In this project the consortium is composed of eleven partners with wide presence in the EU and LAC.

- Role: institutions participating in the consortium project are only responsible for the obligations that are set out in the consortium's agreement (CA).
- Responsibilities: those established in the CA.

**Steering Committee**

- Role: plays a crucial role in overseeing and guiding a project towards its objectives.
- Responsibilities:
  - Could assess and manage project risks by identifying potential threats, implementing risk mitigation strategies, and monitoring risk factors throughout the project's duration.
  - Monitors the progress of the project against established milestones and schedules. It evaluates project performance and makes adjustments as needed to ensure the project remains on track.
  - Could discuss, address, and resolve issues, conflicts, or challenges that may arise during the project lifecycle, ensuring timely resolution to minimize disruptions and keep the project on course.
  - The steering committee, based on the Quality plan of the project, oversees the quality of project deliverables, and ensures adherence to established quality standards and best practices thus accompanying the OEI as project coordinator.
  - The committee will serve as an escalation point for significant issues or decisions that cannot be resolved at lower levels within the project organization.
  - Reviews and approves key project deliverables, such as project plans, budgets, major milestones, and deliverable acceptance criteria.

**General Assembly (GA)**

- Role: It is comprised of a representative of each consortium partner participating in the project. The General Assembly is responsible for the overall success of the GA.
- Responsibilities:
  - Defines the overall strategic direction and goals of the project.
  - Provides high level monitoring and control of the project.
  - Discusses resources, personnel, and other assets, to support the project's implementation and ensure its success.
  - Project progress review.
  - Decision-making frameworks to guide project activities and resolve issues or conflicts that may arise during the project lifecycle.
  - Ensuring the project remains focused on achieving and delivering its objectives and maintains relevance within the Security theme of the Horizon programme;
  - Co-ordination and application of procedures for quality control (Quality plan).
  - Resolving any technical, administrative, or contractual issues.
  - Ethical consideration of the project work and deliverables (Ethic plan).
  - Remaining in close contact with the Project Officer (PO) through the Coordinator.

The dates for these meetings will be determined by month (6 months). If there is a need expressed by the majority of the representatives, additional sessions will be arranged.

**Collaborative entities (as the Universidad de Magallanes de Chile, the Universidad Católica del Norte de Chile and the Joint Research Centre (JRC)**

- Role: Provide specialized knowledge or expertise relevant to specific aspects of the project.
- Responsibilities:
  - Advise on technical or domain-specific matters related to the project.
  - Assist in requirements gathering, analysis, and solution design.
  - Collaborate with project team members to resolve complex issues or challenges.
  - Contribute to the project dissemination.

**Beneficiaries**

- Role: End-users or beneficiaries of the project's outputs or deliverables.
- Responsibilities:
  - Define project requirements and expectations from the user perspective.
  - Provide feedback on prototypes, demos, and interim deliverables.
  - Participate in user acceptance testing and training activities as needed.

### 3.2.2 The management of the consortium

Effective management of a consortium requires clear communication, collaborative decision-making, robust financial management, proactive risk mitigation, and structured conflict resolution processes.

Thus, within the framework of this project the consortium formed and composed by eleven entities from EU and LAC, will be organize as followed:

**- Governance Structure**

The General Assembly is the decision-making body of the consortium and is formed by one representative of each Party. The Steering Committee is the executive body of the consortium and is formed by the project contact of each partner designated as leader of each Work Package.

Project Management Office, OEI, will provide administrative support, facilitates communication, and ensures alignment with project objectives.

**-Coordination and Communication**

Regular Meetings: will be scheduled among consortium members to discuss progress, address challenges, and coordinate activities.

Communication Platforms: the consortium will utilize email, a project management software (intranet on the project webpage), and collaborative tools for efficient communication and document sharing.

**-Decision-Making Process**

Consensus Building: Coordinated by OEI, the Consortium members will seek consensus when making decisions, considering the perspectives and interests of all stakeholders. A voting mechanism: could be implemented within the governance structure to resolve disagreements or deadlock situations.

Likewise, an escalation procedure for addressing unresolved issues or conflicts that cannot be resolved at lower levels, will be established through the General Assembly, as is regarded in the CA.

**-Financial Management**

Within the framework of the lump sum financing of the project, the allocation of resources to each WP was carried out with the development of a clear budget allocation plan, specifying each institution's financial allocations and responsibilities.

Auditing and Compliance: within the framework of this project, audits are not contemplated, however, the OEI, within the framework of its activity will carry out control through the monitoring reports of the main headings of the partners' budget at the level of expenditure on personnel, travel and accommodation, dissemination, events... etc. In this sense, the OEI suggests and advises the members of the Consortium to proceed in a recommendation way regarding possible future audit processes by EU bodies within the framework of their institutions.

### 3.2.3. Communication guidelines

### 3.2.3.1. Internal communication

*Communication with the Granting authority: REA*

EU grants are managed fully electronically through the EU Funding & Tenders Portal ('Portal').

All communications must be made electronically through the Portal in accordance with the Portal Terms and conditions and using the forms and templates provided there, except on the case REA provides the PO email to directly contact.

Communications must be made in writing and clearly identify the GA (project number and acronym). Communications with REA must be made by the OEI.

If the electronic exchange system is temporarily unavailable, instructions will be given on the Portal.

Date of communication: when it is necessary to send to the portal as well as upload documents, the date of sending of the communications made through the EU Portal will be the date and time of sending, as indicated in the time records of the Portal.

The OEI will be responsible for updating information on the Portal, while the partners will have to update the information regarding the roles and functions of the researchers of their institutions involved and assigned to the project. In parallel, for each WP different focal points will be designated, in this sense, for each WP there will be a legal focal point, a focal point for administrative monitoring and a focal point for communication.

Addresses for communication: the Portal can be accessed via the Europa website.
*https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home*

**Communication between the parties: OEI and the partners institutions**

Within the framework of this project, communication between the OEI and the partners will be carried out via regular email updates and online meetings, via Microsoft Teams.
The email will be used for official communications, as well as an intranet that will be used to share project documents, announcements, and updates.

**Assign Communication Roles**

▪ **Project Coordinator:** the OEI will be in charge of monitoring the work carried out by the WP leaders as responsible for overseeing communication activities, coordinating meetings, and ensuring information flow among consortium members.

▪ **Communication Focal Points:** in our case, each leader of the Work Package, will serve as liaisons between their organization and the project coordination.

### 3.2.3.2. External communication

### Dissemination activities from OEI

The OEI, as leader coordinator of the project, will develop a specific role in the task of communication and dissemination.

In order guarantee a continuous communication of the project and its outcomes, the OEI will be in charge of the creation of a communication plan and a specific webpage, developing a concrete planification for each communicative action. In order to achieve this, the OEI will put in service of the project its communicative capacities.

▪ Communication and Dissemination Plan: the OEI will be in charge of the transversal, multiplatform and transnational-regional communication and dissemination of the project. According with the GA, a plan for dissemination and exploitation including communication activities will be elaborated within the first 6 months of the project considering available templates on the EU Funding & Tenders manual. Currently, the OEI counts with approximately 20 agreements and more than 30 stable spaces of dissemination in media of the whole Ibero-American region. There are more than 530 thousand of followers consuming, interacting, and communicating the content of the OEI. In social media, OEI act through Instagram, Twitter (X), LinkedIn, Facebook and YouTube, having a growth of public in each of them, but standing out YouTube, where, during the last two years, the subscriptions have augmented a 290%. For the second year of execution of the project, an updated dissemination and exploitation plan will be carried out.

▪ Partners' communication actions: the OEI will also disseminate the work carried out in this project among the partners that the organization counts with and in other science events and projects as the Ibero-American Researchers' Night. Moreover, this project will be disseminated through an international event that will take place at the end of the 24 months with the aim of sharing results with all the actors of the energy sector, as well as other stakeholders.

▪ Specific webpage: The creation of a webpage to disseminate project results among the partners and other European and LAC research infrastructures. Its webpage will be communicated through websites and social media in order to discover it to interested public.

Also, the OEI will be the actor that assures the transfer of this project to policy makers, recognizing this task as essential for the success and sustainability of this project.

**Dissemination activities from all the members of the Consortium**

- Thematic event per work package: as virtual events, they will share the contents of the investigations carried out in the technological, sustainable, and social work packages. The communication of those events will be made by all the partners through the collaboration of the communication area of each entity. Social networks and letters of invitation will be used to reach the interested ones (experts and general public). After each event, as well as own pieces of news and dissemination through media, a piece of audio-visual material will be uploaded as memory of the event.
- Social networks: all projects' results will be efficiently communicated through social networks. It will be uploaded to the webpage of the project and personally sent to stakeholders.
- Traditional media: It will also be offered expertise interviews to traditional media and opinion articles in newspapers.
- Elaboration of videos oriented to different users: civil society (to approach science to society) and key stakeholders such as policy makers, enterprises, and researchers.
- Link with other OEI and Ibero-American projects: considering the rest of the projects that the partners of this initiative carry out, the activities can also be disseminated in and generated synergies with other events as well as among other institutions.
- Online international workshop: that will be held in México on the green hydrogen production and lithium valorization and exploitation for energy production in LAC and EU countries. This event will involve plenary lectures, short courses and poster presentations from academia, industry, and government. It will be a free event of 2 – 3 day that will promote national and international collaboration for energy transition.
- Virtual thematic event related to technology in energy transition: shall be organized where evidence of the critical issues to be addressed will be discussed and decisions on the most significant areas of further work will be made. Also, at this event, the results of the mobility actions carried out will be presented and discussed.
- Final international event: it will take place at the end of the 24 months, in order to gather and disseminate all the work done. It will be hybrid in order to reach a greater quantity of people from both regions. As the previous events, this one will also need a coordinated action by all the communication areas of the partners, with the use of social networks and webpages. Besides, in order to reach researchers and public servants, personal invitations will be also sent. A final report will be extracted from the event and uploaded to the webpage, as well as the recordings.

**Communication- Dissemination- Visibility and Promoting the action.**

Unless otherwise agreed with the granting authority, the beneficiaries must promote the action and its results by providing targeted information to multiple audiences (including the media and the public), in accordance with the GA and in a strategic, coherent, and effective manner. Within the framework of the development of the website that will be created for the Project, the platform will be conceived as an online knowledge management, through which partners will be able to upload, share and disseminate news and events directly related to their areas of expertise, action, and intervention in the Project.

Beneficiaries must inform before engaging in a communication or dissemination activity expected to have a major media impact. In this sense, the OEI will be responsible for communicating the visibility of these actions to the European Research Executive Agency (REA).

**Use of logos**

- European Union Visibility — European flag and funding statement:

Unless otherwise agreed with the granting authority, communication activities of the beneficiaries related to the action (including media relations, conferences, seminars, information material, such as brochures, leaflets, posters, presentations, etc., in electronic form, via traditional or social media, etc.), dissemination activities and any infrastructure, equipment, vehicles, supplies or major result funded by the grant must acknowledge the EU support and display the European flag (emblem) and funding statement (translated into local languages, where appropriate):

The emblem must remain distinct and separate and cannot be modified by adding other visual marks, brands or text. Apart from the emblem, no other visual identity or logo may be used to highlight the EU support.

When displayed in association with other logos (e.g. of beneficiaries or sponsors), the emblem must be displayed at least as prominently and visibly as the other logos.

For the purposes of their obligations under this Article, the beneficiaries may use the emblem without first obtaining approval from the granting authority. This does not, however, give them the right to.

- Consortium partners visibility

In order to give visibility to the actions carried out by the members of the consortium, the identity logos of each institution will be used in the communication processes. To do this, all partners will be asked to use should provide their logos in a "Vectorial" format, in order to guarantee the quality of the logos when using them. In this sense, the consortium partners will be requested to send electronically to the OEI, after the Kick-off meeting, these same logos in vectorial format, so that the OEI can have them centralized in the case of needing them.

On the other hand, in terms of common aspects regarding the image visibility, the project will develop:

- a visual identity trough a "project logo".

-a "common document format" that all partners must use to produce internal documents and deliverables.

It must also be made clear that any additional design of the deliverables, must be carried out by the deliverable leader.

### 3.2.4. Organization of meetings

Within the framework of the project, it is necessary to establish periodic meetings with all members of the consortium in order to closely monitor the progress of the different actions and deliverables within the Work Packages of each institution.

For this reason, the following periodicity and form of meetings is established:

- Kick off meeting:  it will be organized a meeting with all the partners, in a kick-off meeting format, that will take place in-person, hosted OEI in Madrid, with the goal of meeting each other, organizing the consortium, defining the concrete versions of the work packages and its calendars. It will be also created a steering committee that will be composed by one representant of each partner.
- Bilateral meetings:  periodically the OEI and the WP leaders could organize virtually meetings with partners in order to carry out a follow-up of the processes, with the objective of provide updates, discuss tasks, and coordinate activities. These meetings will initially be set by the OEI as project coordinator and WP leaders, however, other partners may at any time request to meet OEI or WP leaders.
- Working teams' meetings: these meetings will be convened by e-mail, and held through the Teams platform once per month.
- Steering Committee: these meetings will be convened by e-mail and held through the Teams platform one each two months.
- General Assembly Meetings: these meetings will be convened by e-mail and held through the Teams platform. The dates for these meetings will be determined by month (6 months). If there is a need expressed by the majority of the representatives, additional sessions will be arranged. These meetings will serve to discuss project progress and status, discuss upcoming tasks, address any issues or concerns and decisions exchange.
- Virtual meetings of Working Teams *(e.g., Zoom or Microsoft Teams) for synchronous discussions and exchanges. These virtual meetings will be scheduled with enough time so that participants can organize and attend.* In the communication e-mail, the purpose, agenda of the meeting will be shared for each meeting.
- Final Meeting: at the end of the project, together with the final public international event, we will meet in-person in a LAC country, in order to have a final internal meeting that supports the evaluation of the whole project and the organization of its sustainability.
- External meetings: the coordinator or beneficiary concerned may be requested to participate in meetings, including with the outside experts. For on-the-spot visits, the beneficiary concerned must allow access to sites and premises (including to the outside experts) and must ensure that information requested is readily available.

### 3.2.5. Deliverables and timelines

### 3.2.5.1 Steps to deliver, review and validate a deliverable.

In a consortium project involving multiple organizations, delivering, reviewing, and jointly validating a deliverable requires careful coordination and collaboration among all consortium members. For this reason, we propose the following steps involved in this process:

- This project is divided into 7 work packages. For each Work package, the deliverables are already defined at the level of the requirements and specifications, including its purpose, scope, and quality criteria.
- Each leader of each deliverable with the Work Package's leader are responsible of the assigned specific deliverable base on their expertise, resources, and capabilities. In this sense, the responsible consortium member(s) develop the deliverable according to the defined requirements and specifications. They should collaborate with other consortium members and external institutions it is necessary to complete the work.
- Once the deliverable is ready, the deliverable leader will submit the completed deliverable, to the Steering Committee for review, **1 month in advance prior to the delivery date set by the project for that specific deliverable**. This may involve sharing the deliverable through the intranet web of the project website as documentation manager.
- All the Steering Committee members review the deliverable to provide feedback, identify any issues or concerns, and ensure alignment with project goals and requirements. Once the Steering Committee has received the deliverable from one of the leaders of the deliverable, it will be **obliged to review it within a maximum period of 7 days.** The objective of this short notice is that if the deliverable must be reviewed again before its final validation, it arrives on time to the delivery date set by the project.
- In case of adjustment or discrepancies or outstanding issues identified during the review process, this may involve revising the deliverable, clarifying requirements, or seeking additional input or expertise from relevant stakeholders.
- Once all the parties involved agree on the final version of the deliverable, the Steering Committee will proceed to acceptance. It is required that this acceptance by all members of the Steering Committee be made at least two days in advance of the due date set for each deliverable within the framework of the project established in each Work Package.
- Formal Acceptance: once the deliverable has been finalized and approved by all the Steering Committee members, formally accept it as complete and satisfactory through the specific reference done at the beginning of the document.
- Once the deliverable has been accepted by the entire Steering Committee, the OEI, as Project Coordinator, will be in charge of uploading the deliverable document in the Portal of the European Union, in order to be submit in form and on time as required by the process of the project with the Granting authority. Deliverables which contain classified information must be submitted according to special procedures established by the granting authority.

By following these steps, we consider that the Steering Committee members can effectively deliver, review, and jointly validate deliverables in a collaborative environment, ensuring that they meet the project's requirements and contribute to its overall success.

Within the different WP of this project, 3 different types of mobilities will be carried out, through which a series of deliverables of each mobility will be produced.

**Mobilities for Technology**

At least, 15 mobilities from LAC entities to European research infrastructures and one from European research infrastructures to LAC R&I entities to promote Scientific Cooperation Networks between LAC R&I entities and European research infrastructures focused on energy sector. Mobilities from LAC entities will be used to one-on-one research mentoring over roughly 1-month periods. These mobility actions strengthen both, dissemination, as the persons mobilized will carry the knowledge and experiences with them after graduating, and exploitation, as the mobility will strengthen scientific excellence, collaboration, and synergies among the partners. Mobility planned from Europe to LAC R&I entities will be mainly used to carry out a detailed scrutiny of the existing capabilities in the field of solar RIs and to initiate a dialogue with local stakeholders in order to identify the most suitable applications of high temperature solar process heat in the LAC socio-economic environment. The ultimate goal is the establishment of a permanent Scientific Cooperation Network between all interested parties from both sides of the Atlantic and keep going in the support of the achievement of Sustainable Development Goals on a peer-to-peer basis.

**Mobilities for sustainability**

At least 10 mobilities from LAC R&I entities to European research infrastructures and 5 from European research infrastructures to LAC R&I entities. Mobilities from Europe to LAC will be focused on training on the use of the research platform and software delivered on the WP5 framework. Mobilities from LAC to Europe will be used to train too but also to exchange know-how on responsible research and transfer knowledge.

**Mobilities for social impact**

In this WP, it will be carried out the phase I (design) and phase II (fieldwork) of an ethnographic study comparing case studies of specific policies focused on lithium, green hydrogen and renewable energies in three countries of the consortium. The phases of the research will be as follows:
Months 1-3: establishment of the relevant case studies and the research design.
Months 4-12 ethnographic fieldwork (combination of online interviews with five research stays in LAC and five research trips in Spain-Portugal).

Within the framework of the three types of mobilities (for technology, for sustainability and for social impact) provided for in the project, a participation procedure is established for both the hosting institutions and the receiving institutions.

- **Hosting Institutions: European host institutions**

They must provide their proposal to host mobilities for the project before /31/04/24.
There must be at least a proposal for 15 technology mobilities and 10 related to the environment.
This proposal must include the following points:
  - Name of the host institution
  - Department in which the activity will take place.
  - Work theme.
  - Established objectives for mobility.
  - Contribution to the institution (if any)

- **Sending institutions: Latin American and Caribbean shipping institutions**

They must provide their proposed mobility sheet for the project before 31/06/24.
The mobility proposal form must include at least:
  - an identified person who will participate in the mobility.
  - The CV of the person(s) who will participate in the mobility.
  - The specific period in which the stay will take place.

The agreements between both parties must be signed before 31/08/24.

- **Requirements to participate in the mobilities.**

Be in active service (fellowship included) and with part-time or full-time dedication in the accredited relationship with the organization of origin that gives its consent to the mobility that will be carried out.

- **Duration. Start and end dates of stays.**

Stays must have a minimum duration of 1 week and a maximum of one month.
Stays must be made between the 1st of the month of September 2024 until the 1st of the month of September 2025.

- **Projects to be carried out and recipient groups.**

To carry out the project, the beneficiary must join a research team at the receiving center and one of its members must assume responsibility for its teaching/research activity throughout the stay. Applications in which there is no receiving group, made up of at least two professors/researchers from said center, may not be accepted for processing.

- **Destination institutions**

Mobility must be requested for a single destination institution, which will be the receiving center.

- **Budget**

Mobilities entail:
- An allowance for accommodation and subsistence expenses for the duration of the stay at the host institution.
- An allowance for travel expenses.
- These provisions depending on the sending institutions and other cash and non-cash contributions that the hosting institution could apport.

### 3.2.6. The management of access to the Portal

Coordinator of the project, OEI, is responsible for managing the project, submitting reports and deliverables and acting as intermediary for all contacts with the EU Granting Authority via the EU.

Funding & Tenders Portal:

https://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/grant-management/deliverables_en.htm

In the EU portal, the deliverables must be submitted according to the timing specified in the Continuous Reporting section. At the time the periodic report is submitted, it would be necessary to check if all deliverables due have been provided and, if not, give an explanation in the Comments column (especially for missing or late deliverables and/or cancelled or grouped deliverables).

### 3.2.7 Settlement of internal disputes

Settlement of internal disputes in a consortium project involving 11 participants requires a structured protocol to ensure that conflicts are resolved effectively and efficiently, minimizing disruptions to the project's progress and maintaining positive relationships among consortium members.

In this regard, we propose a protocol for settling internal disputes in the framework of the consortium project:

In the framework of the project the OEI, as project coordinator, will be designate as focal point for resolution disputes. OEI should be impartial, objective, and trusted by all parties involved.

Face to internal disputes, it would be necessary to identify the roles and responsibilities of each party involved, and the mechanisms for escalation if disputes cannot be resolved at the initial level.

OEI will encourage open communication and transparency among consortium members to facilitate the early identification and resolution of disputes. For this point it would be necessary to establish clear channels for expressing concerns, grievances, or disagreements in a constructive and respectful manner.

Informal Resolution Attempts: OEI will encourage parties involved in a dispute to first attempt to resolve the issue informally through direct communication and negotiation. This may involve arranging meetings or mediation sessions to discuss concerns and explore possible solutions.

Formal Dispute Resolution Process: if informal attempts at resolution are unsuccessful, OEI will initiate a formal dispute resolution process according to the established protocol. This process may involve the following steps:

- Documentation: Document the details of the dispute, including the nature of the issue, relevant facts, and any attempts at informal resolution.
- Mediation: OEI will engage a neutral third-party mediator to facilitate discussions and help parties reach a mutually acceptable resolution. Mediation encourages open dialogue and exploration of creative solutions while preserving relationships.
- Arbitration: if mediation fails to resolve the dispute, OEI will consider arbitration as an alternative dispute resolution mechanism. Arbitration involves the appointment of a neutral arbitrator who evaluates evidence and makes a binding decision to resolve the dispute.
- Escalation Procedures: OEI will define clear escalation procedures for unresolved disputes that cannot be resolved at the lower levels. This may involve escalating the matter to higher management levels or the executive Steering committee of the Project for further review and decision-making.
- OEI will prioritize the timely resolution of disputes to prevent delays in project activities and maintain momentum. Establish deadlines and timelines for each stage of the dispute resolution process to ensure that issues are addressed promptly.
- Documentation and Follow-Up: OEI will document all communications, agreements, and decisions related to the dispute resolution process for future reference. Follow up with parties involved to ensure that any agreed-upon solutions are implemented and that any lingering issues are addressed satisfactorily.
- Continuous Improvement: OEI, as well as the members of the Consortium, will use the resolution of disputes as an opportunity for learning and continuous improvement. Identify root causes of conflicts, evaluate the effectiveness of the dispute resolution process, and implement any necessary changes to prevent similar issues from arising in the future.

### 3.2.7 Quality and other Plans

A project quality plan is a component of the project management plan and outlines the required tools, tasks, and processes the project team must use and execute to achieve quality expectations.

With a wide experience in quality assurance in different areas, OEI will stablish a quality plan composed by indicators to measure the quality of the processes carried out in the development of the activities and other issues related to risks.

It will include areas of quality demanded specifically by the EU, considering ethics and security, gender policies and data management plan taking into account the 'do no significant harm' principle.

The Quality Plan for the EULAC ENERGYTRAN project provides guidance on the project's quality requirements, and it defines how to manage and validate the quality of a project and its expected outcomes throughout the project phases.

The Quality Plan dedicated document for the project, will achieve two main goals:

1.Identify the project's quality requirements
2.Describe how quality assurance and quality control procedures will be carried out.

This document will provide guidance to all members of the consortium, under the coordination of the OEI.

In addition, other plan will be elaborated to take into account by all consortium during the Project implementation: Dissemination and Exploitation Plan, Ethic Plan, Data Management Plan and Gender Equality Plan.

### 3.2.8 Evaluation

At the middle and the end of the project an evaluation will be carried out, under the OEI responsibility, in order to determine the success of the project, detect errors and chance to improve, as well as new opportunities of collaboration. This task will be carried out together with the elaboration of policy recommendations and guidelines destinated to European and LAC researchers and policy makers about a clean and just energy transition, and about how to improve scientific cooperation between both regions, taking into account the work and learnings extracted from the project.

### 3.3 Conflict Resolution and Escalations

Conflicts are situations in which one or both parties perceive a threat. They are considered to be critical issues and can be raised by any of the project stakeholders. Any partner should proactively identify, log and raise such issues for resolution. When required, conflicts are discussed on the periodic meetings and if need it, escalated to the Steering Committee.

Conflict resolution activities are registered in the Issue Log (an issue log is a simple list or spreadsheet that helps managers track the issues that arise in a project and prioritize a response to them), while conflict resolution decisions can be ed in the Decision Log ( a decision log is a record of all the important decisions; is a tool used to document decisions made by a team or organization. It is a record of the decisions that have been made, the reasons for making them, and the outcomes of those decisions. The decision log can be used to track progress, identify areas of improvement, and ensure that decisions are made in a consistent and transparent manner).

The escalation procedure for this project is as following:

- Only issues/changes/risks with Very Low and Low impact can be approved by the Working Teams. In this case, OEI must always be informed, and decisions may be registered in the Decision Log.

- Issues/changes/risks with medium impact are approved by the Steering Committee. Decisions are registered in the *Decision Log*.

- Issues/changes/risks with High and very High impact are approved by the General Assembly. Decisions are registered in the *Decision Log*.

- When relevant, OEI will summon extraordinary meetings for approving remediation actions related to urgent or very urgent issues with considerable impact or size.

- The Steering Committee serves as an escalation point for significant issues or decisions, that cannot be resolved at lower levels within the project organization.

## 4. Project Processes

### 4.1 Issue Management

The project issue management process defines the activities related to identifying, documenting, assessing, prioritizing, assigning, resolving and controlling issues. It is a four-step process that the Project Coordinator, OEI, executes whenever required throughout the project lifecycle:

- **Issue Identification:** Issues can be identified by any member of the Consortium throughout the project lifecycle, using different communication channels such as meetings, emails, and reports. The issues are registered in the *Issue Log*.

- **Issue Assessment and Action Recommendation**: a first informal assessment considers the category, impact, urgency and size of the issue, followed by a more detailed analysis to identify the root cause and recommend a solution. This information is documented in the *Issue Log* and used as input to the appropriate decision makers (based on the escalation process). The decision is documented in the *Decision Log*.

- **Actions Implementation:** After issues are evaluated and the remediation actions approved, the Project Coordinator, OEI, will incorporate these actions into the Project Work Plan (Gantt Diagram) and update project related documentation such as project plans and logs.

- **Issue Control:** Project Status meetings will be performed weekly and used to revise the status of issues and related actions, and to identify new issues. Additionally, the Project Coordinator, OEI, will report monthly the status of the major issues to the Steering Committee and, when adequate, to other project stakeholders.

### 4.2 Requirements Management

The requirements management process comprises the activities related to the specification, evaluation, approval, monitoring and validation of the project's requirements. This process consists of the following steps:

- **Specify Requirements:** gather the project requirements together with the members of the Consortium and document them unambiguously in the Requirements Document. Structure them by adding relevant metadata.
- **Evaluate Requirements:** the project team assesses the feasibility of the requirements and estimates the costs to realise them. The Project Coordinator, OEI, balances the list of requirements with the other project constraints (budget, time, etc.) and proposes them to partners.
- **Approve Requirements:** the Project Coordinator, OEI, negotiates and agrees the requirements that will be realized during the project with the relevant members of the consortium or stakeholders. The approved requirements become the baseline of the project scope.
- **Monitor Requirements Implementation:** the Project Coordinator, OEI, continuously monitors the implementation of the requirements by the Consortium, besides the discovery of new requirements or changes to existing requirements.
- **Validate Implemented Requirements:** when the requirements are implemented the solution is validated by the business user in order to assess if the initial business need is satisfied. Formal acceptance of the project deliverables should comply to the Deliverables Acceptance Management process.

## 4.3 Project Change Management

The project change management process defines the activities related to identifying, documenting, assessing, approving, prioritising, planning and controlling changes, and communicating them to all relevant stakeholders. It is a five-step process that the Project Coordinator, OEI, executes whenever required throughout the project lifecycle:

- **Change Identification:** a request for a change can be submitted formally via a Change Request Form or can be identified and raised during meetings as a result of decisions, issues or risks. The *Change Log* contains information to identify the change, such as the requestor, a short description, identification date, etc.
- **Change Assessment and Action Recommendation**: the size and impact of the change on the project scope, schedule, cost, quality, risk, and other project boundaries is assessed, where after a recommended action will be documented by the Project Coordinator, OEI, in the *Change Log*., This information is then used as an input to the formal change approval by the appropriate decision makers.
- **Change Approval:** the approval of a project change will follow the defined escalation process for this project. For changes which do not have significant impact on delivery time and budget, the changes can be approved during the Project Status Meetings. Other changes (having a size L or XL) are approved by the Steering Committee. The decision details are documented in the *Change Log*.
- **Change Implementation:** the activities related to the implementation of approved changes will be documented in the Project Work Plan (Gantt Diagram).
- **Change Control:** new or open changes will be identified/reassessed periodically during the periodic meetings with the members of the Consortium, as well as with the Team leaders of each Work Package and the Project Coordinator, OEI, will then update the *Change Log* with the results of the analysis/review. For the Medium, High and Very High size changes, the Project Coordinator, OEI, will report on periodically basis their status to the Steering Committee and, when adequate, to other project stakeholders.

## 4.4. Resource Management

In terms of resources management, we present below, two table comparing the staff effort per participant and a summary of staff efforts.

**Staff effort per participant**

| Work packages | | | | | | |
|---|---|---|---|---|---|---|
| Work Package No | Work Package name | Lead Beneficiary | Effort (Person-Months) | Start Month | End Month | Deliverables |
| WP1 | Mobilities for Technology | 2 - EU-SOLARIS ERIC | 33.10 | 1 | 24 | D1.1 – Inventory of RI for energy transition<br>D1.2 – Monitoring report for technology mobilities I<br>D1.3 – Monitoring report for technologies mobilities II |
| WP2 | Research and innovation actions for Technology | 2 - EU-SOLARIS ERIC | 46.50 | 13 | 24 | D2.1 – Paper about solar thermal energy assessment<br>D2.2 – Monography about RI for green hydrogen and lithium<br>D2.3 – Report about lithium extraction<br>D2.4 – Conclusions on the on-line international workshop<br>D2.5 – Conclusions on the virtual thematic event |
| WP3 | Coordination, Management, Quality Control, Dissemination, Exploitation and Communication | 1 - OEI | 43.60 | 1 | 24 | D3.1 – Project webpage<br>D3.2 – Ethic plan<br>D3.3 – Data Management Plan D3.4 – Gender equality plan<br>D3.5 – Plan for dissemination and exploitation<br>D3.6 – Policy brief I<br>D3.7 – Memorandums of Understanding<br>D3.8 – Updated plan for dissemination and exploitation<br>D3.9 – Policy brief II<br>D3.10 – Project Management Handbook<br>D3.11 – Quality Assurance Plan |
| Work packages | | | | | | |
| Work Package No | Work Package name | Lead Beneficiary | Effort (Person-Months) | Start Month | End Month | Deliverables |
| WP4 | Mobilities for sustainability | 3 - LifeWatch ERIC | 20.60 | 1 | 24 | D4.1 – E-learning course on open science<br>D4.2 – Monitoring report for sustainability mobilities I |
| WP5 | Research and innovation actions for sustainability | 3 - LifeWatch ERIC | 40.50 | 13 | 24 | D5.1 – Software for the SDG achievement on research<br>D5.2 – Development of the research platform of climate change and diversity for energy transition<br>D5.3 – Monitoring report for sustainability mobilities II |
| WP6 | Mobilities for social impact | 4 - CSIC | 11.00 | 1 | 24 | D6.1 – Monitoring report for social impact mobilities I<br>D6.2 – Monitoring report for social impact mobilities II |
| WP7 | Research and innovation actions for social impact | 4 - CSIC | 16.00 | 13 | 24 | D7.1 – Ethnographic research about the social impacts of energy transition |

**Summary of staff efforts**

|  |  | WP1 | WP2 | WP3 | WP4 | WP5 | WP6 | WP7 | Total Person-Months per Participant |
|---|---|---|---|---|---|---|---|---|---|
|  | BE1: OEI | 5 | 5 | 25 | 5 | 5 | 5 | 5 | 55 |
|  | BE2: EU-SOLARIS | 10 | 10 | 4 | 0 | 0 | 0 | 0 | 24 |
|  | BE3: LIFEWATCH | 1 | 0.5 | 1.5 | 3.5 | 4.5 | 0,5 | 0,5 | 12 |
|  | BE4: CSIC | 0 | 0 | 3 | 0 | 0 | 5.5 | 10.5 | 19 |
|  | BE5: IPS | 4 | 10 | 1 | 3 | 9 | 0 | 0 | 27 |
|  | BE6: INESCTEC | 4 | 10 | 1 | 3 | 9 | 0 | 0 | 27 |
|  | BE7: PUC | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 6 |
|  | BE8: TECNM-ITA | 0.1 | 6 | 0.1 | 0.1 | 6 | 0 | 0 | 12.3 |
|  | BE9: UNSAM | 2.5 | 2.5 | 1 | 0 | 0 | 0 | 0 | 6 |
|  | BE10: FUNCENAT | 0 | 0 | 4 | 6 | 7 | 0 | 0 | 17 |
|  | BE11: UNNE | 2.5 | 2.5 | 1 | 0 | 0 | 0 | 0 | 6 |
| Total Person Months |  | 33.1 | 46.5 | 43.6 | 20.6 | 40.5 | 11 | 16 | 211.3 |

## 5.Project Progress Measurement

### 5.1 Project Progress Measuring Approach

*T*he approach for Project Progress Measuring involves systematically tracking and evaluating the advancement of a project to ensure it stays on schedule, within budget, and meets quality standards. Below we present a framework for implementing the approach:

Approach for Project Progress Measuring to be tracked:

1. The project Objectives and Milestones trough the work packages.

2.The Key Performance Indicators (KPIs), align with project objectives.

The KPIs provides insight into progress, such as schedule adherence, budget variance, and resource utilization.

3. The progress tracking mechanisms to be used will be the GESPROEI, as a main project management tool of the OEI and reported throughout the project lifecycle. In parallel, Gantt chart (included as annex) contributed to the monitoring of the progress of the project.

4. Implement Progress Monitoring Reports: Conducting progress reviews at predetermined intervals to assess project performance and identify deviations from the plan.

5. Evaluations: comparing results and impacts with foreseen effects. This point will allow to analyse variances and potential deviations to understand the root causes and implications for project outcomes.

6. Communicate Progress and Performance: the OEI, as project coordinator, will provide regular updates to stakeholders on project progress, accomplishments, and challenges, in a bilaterally way to the leaders of each work package, to leaders of each deliverable, jointly to all members of the Consortium in the General Assembly meetings or by email, as well as to the Steering Committee.

7. Take Corrective Actions as Needed: the OEI will address any issues or delays promptly to prevent further escalation, involving, if necessary, partners and ultimately to the Steering Committee and the General Assembly as a whole.

A systematic approach to project progress measuring ensures that projects are monitored effectively, deviations are identified early, and corrective actions are taken promptly to keep the project on track for successful completion. By defining objectives, establishing KPIs, implementing tracking mechanisms, evaluating progress, communicating effectively, and continuously improving monitoring processes, the project Coordinator, OEI, can effectively manage project progress and deliver successful outcomes.

## 5.2 Project Reports

### 5.2.1. Reporting structure

The need to monitor through progressive Reporting will allow the OEI, summarizing key achievements, upcoming milestones and continuous monitoring of action items.
In this sense, and in order to guarantee the monitoring and evaluation of the project, OEI, as leader on the management activities, will demand to the rest of the leading entities of the different WPs, three kinds of reports:

- **First Report- Initial Report** (6 month after the start of the project):  as a specific definition of the development of each work package (before 31/05/24).
- **Second report- Intermediate Report** (12 month after the start of the project): this report will be one per partner (before 30/11/24).
- **Third report-Monitoring Reports** (18 month after the start of the project and before 31/05/25). The monitoring reports will be three dedicated for technology mobilities, for sustainability mobilities, for social impact mobilities.
- **Final report** (24 month after the end of the project)**:**  that gathers a final resume of the activity carried out by each partner (before 31/10/25).
- 

As mentioned above, to facilitate this task, OEI counts with an open software to the project management (GesprOEI) based on the methodology GONG (https://gong.es).

Regarding the Final report, the OEI is committed to sending a report to REA 24 months after the start of the project.

### 5.2.2. Technical reports and financial statements

Partners will receive the initial prefinancing according with the following schedule and presenting previously a payment requirement document (included template as annex):

| 40% of the total budget | on receipt of Pre-financing |
|---|---|
| 20 % of total budget | At the end of the 12th month |
| 15 % of total budget | At the end of the 18th month |

Any partner could require any additional payment presenting a new payment requirement document (following the template annexed) and justifying the need of more funds being the maximum possible requirement the total prefinancing grant amount corresponded to each partner less the amounts retained by the Granting Authority for the Mutual Insurance Mechanism and for the final payment.

At the end of the execution period and previously to the presentation of the next payment requirement document, partners will present a declaration certificate showing the percentage of execution, also included in the corresponding monitoring report.

Final payment will be transfer to the partners as soon as it will be received in the coordinator's account bank.

### 5.2.3. Reporting timing

The consortium members must continuously report on the progress of the action (e.g. deliverables, milestones, outputs/outcomes, critical risks, indicators, etc; if any), in the *Portal Continuous Reporting tool* and in accordance with the timing and conditions it sets out (as agreed with the granting authority). This will be done through the OEI.
Standardised deliverables (e.g. progress reports not linked to payments, reports on cumulative expenditure, special reports, etc; if any) must be submitted using the templates that will be provided by OEI.

### 5.2.4. Reporting language

Portuguese and Spanish will be the vehicular language for this project. This Project Management Handbook is drawn up in English, which language could govern other documents, notices, meetings, arbitral proceedings and processes relative too.
Regarding the deliverables, Portuguese and Spanish will also be the vehicular language, unless otherwise requested by REA. Partners must take care of the translation if required, charged to their dissemination heading.

### 5.2.5. Inclusiveness language in reports

Gender equality on science and other disadvantage issues (disability, ethnicity, LGBTIQ) is a cross-cutting priority in Horizon Europe Program as it is mentioned on the Strategic Plan 2021-2024. But not only for this reason, but also due to the conscience on the barriers to reach an inclusive science, the consortium will be worked on integrating gender and inclusive dimension across the project. All projects' results (intellectual products as report, technologies, etc.) will be written with inclusive language and considering gender differences and other disadvantages.

### 5.2.6. Status and Progress Reports

For this project to monitoring the status report as document that regularly tracks and communicates how the project is progressing against the formal project plan, a Gantt chart has been created as project management tool that illustrates the work performed over the to the projected time for the work (Project Work Plan).

## Appendix 1: References and Related Documents

| ID | Reference or Related Document |
|---|---|
| 1 | EULAC Energytran Project Logical Framework |
| 2 | EULAC Energytran Project Work Plan (Gantt Diagram) |
| 3 | EULAC Energytran Dossier |

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OEI

EU SOLARIS ERIC

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Instituto Tecnológico de Aguascalientes

TECNOLÓGICO NACIONAL DE MÉXICO

CeNAT Centro Nacional de Alta Tecnología