WP3: Quality Plan

Jordan University of Science and Technology

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I. Introduction

ENEPLAN - Developing skills in the field of integrated energy planning in Med Landscapes, is an Erasmus+ project that aims to fill a gap in higher education programmes, focusing on Renewable Energy Sources (RES) development and planning. Architects and planners are often not aware of energy planning and RES technologies. On the opposite, experts in RES development (mostly engineers) do not have competences in regional planning and landscape architecture. Moreover, the rapid and continuous development of technological innovations in the RES field makes it difficult to integrate renewable energy planning in traditional higher education teaching practices and curricula.

The integration of different disciplines and competencies regarding RES development and territorial/landscape planning is highly desirable, especially considering the relevance of integrated tools and strategies at global, European, national and local scales (see e.g. the Sustainable Energy Action Plans in the framework of the Covenant of Mayors). These disciplines, which are now theoretically separate, should merge in an organic framework for the definition of effective and sustainable implementation strategies, following a holistic approach in which Environment, Technology, Planning and Landscape move together towards an increasingly integrated vision.

The project tackles the lack of interdisciplinary approaches in energy planning by focusing on the enhancement of capacities of future professionals (university students in their last years, and the newly graduated), also in view of their employability. Quite often, higher educational institutions (HEI) provide skills and competencies in RES, energy, planning and landscape in separate specialisations, limiting the potential of an integrated approach. Moreover, energy efficiency strategies are often simplistically traced to a mere list of technologies, while their elaboration should require the integrated development of technical skills and environmental and landscape sensitivities (especially in ecologically valuable contexts), which need to be developed within a dedicated HE programme.

The Enerscapes project, as well as several experiences of energy planning across Europe, already showed the importance of including different perspectives and competencies in energy planning to better answer the needs of enterprises and local administrations.

The consortium believes that addressing these needs is crucial to ensure overall sustainability in energy planning, and to form more qualified, employable professionals, able to deal with new and innovative RES-based solutions and with the complexity of their socio-economic and environmental context.

ENEPLAN will be oriented to face the challenge of RES development in Mediterranean areas, which have several similarities in energy potential and planning, landscapes and HE criticalities.

ENEPLAN is in line with the HE development strategies of the Partner countries, as described in the “Overview of the Higher Education Systems in the Tempus Partner Countries - Southern Mediterranean” drafted by the EACEA. In fact, the project contributes to the enhancement of the overall quality of HEI, supporting and improving research and increasing the relevance of curricula and educational programmes. This responds, for instance, to certain objectives of the Egyptian HE reform (“to raise quality through faculty and staff training” and “to reform curricula”) and of the related strategic plan (aimed to “produce high quality graduates and strong research-based highly ranked academic institutions”, “enhance the creativity and innovation skills of the younger generations” and “foster the use of technology and facilitate lifelong-learning”). It also responds to the Jordan HE system’s needs for a higher quality of research and relevance of graduates to the job market, as well as to the similar challenges faced by the Lebanese HE: the programmes relevance, the employability of graduates and the “lack of cooperation between local universities”.

ENEPLAN, promoting integration between energy issues and spatial planning through the production of collaborative ICT-based OERs, is in line with the following national priorities of the 3 involved Partner countries:
- Modernization of curricula (Category A “Curriculum development”) in the subject areas “engineering and engineering trades” (including energy issues) and “architecture and construction” (including urban/regional planning and landscape);
- Category B “Improving quality of education and teaching”: Learning and teaching tools, methodologies and pedagogical approaches.

Being aimed at increasing cooperation among HEI, research centres, and enterprises in the RES sector, the project is also pertinent to the regional priority of Region 3 – South-Mediterranean Countries “Strengthening of relations between higher education and the wider economic and social environment”, Category D “Developing the Higher Education sector within society at large” - Knowledge triangle, innovation (that is also a national priority for Jordan and Lebanon).

This Quality plan, aims at developing a systematic, smooth, and effective plan to oversee the project activities and to ensure the attainment of all deliverables.

I.1 General Objectives

The project aims to promote HEI staff’s and students’ interdisciplinary skills through the development of innovative educational approaches to energy planning, able to support interaction among different disciplines (spatial planning, environment, engineering, landscape, etc.) and foster collaboration with research and business activities operating in the RES sector, thus keeping up with its continuous technological innovation.

On one side, the project addresses the issue of integrated energy planning, which is central in EU strategies and is important to develop international cooperation activities; on the other side, it will respond to the need of interdisciplinary educational tools in this field, through the development, testing and circulation of collaborative “Concept maps” as Open Educational Resources. Concept maps are a way of representing relationships between ideas, images, or words, and, as OERs, they can be a useful tool for teachers (who can update and modify them according to their didactic needs), students and researchers (who can customize them according to their study/research programmes), and enterprises (who can use them to disseminate or develop new technologies/products).

Thus, the overall objective of the project is testing the effectiveness of Open Educational Resources based on the tool of collaborative Concept maps, to improve the quality of HE teaching and research activities in the field of integrated energy planning.

I.2 Specific Objectives

- Helping the modernization of higher education curricula (by integrating them with issues such as energy planning, renewable energy sources, evaluation of the environmental impacts of RES infrastructures, life-cycle analysis, etc.) and increasing teachers’, researchers’ and students’ knowledge and skills in integrated energy planning, while innovating HE teaching and learning practices, and more specifically:
  a) contributing to the circulation of educational outlines, operating within a shareable theoretical framework towards the transfer of dynamic, interactive knowledge on the project themes;
  b) mainstreaming a learning process based on interaction and creativity, capable of shaping a critical, proactive and sustainable approach to RES technologies and energy planning;
  c) innovating the instrumental frameworks that support training, by integrating adaptable cognitive systems able to facilitate the comprehension and development of technical and non-technical information on energy, planning and landscape.
• Increasing labour market relevance of learning provisions and qualifications, thus reinforcing the employability of graduates
• Strengthening the relations between HEI and the wider socio-economic environment, by developing common tools and networks involving planners, academics, researchers and enterprises operating in the energy sector

I.3 Expected results

- State of the art and case studies report (WP1, output 1.2)
- Cmap web platform (WP1, output 1.3)
- WebGIS platform and geodatabase (WP1, output 1.4)
- Cmap 1.0 - basic conceptual map OER in English (WP2, output 2.1)
- Cmap 2.0 – upgraded version of the basic Cmap incorporating the results of the thematic workshops on energy planning and GIS tools; environmental and landscape assessment; RES new technologies; Life cycle analysis and energy potential; innovation, applied research and relationships with SMEs (WP2, output 2.3)
- Cmap 2.0 – final release (in English and in Arabic) (WP2, output 2.4)
- Final conference proceedings (guidelines for integrated energy planning) (WP4, output 4.4)
- Activity of the Centers and departments
- Quality control and monitoring plan
- Exploitation and sustainability plan
- Dissemination plan

I.4 Main activities

WP1 Project Preparation
The WP includes all the preparatory activities that are necessary in order to start the development of ENEPLAN Cmaps (OERs), namely:
- a 5-days kick-off workshop will be organised by ROMA3 in Rome (Italy), aimed at transferring to 3 selected teachers from each partner Universities the methodology and tools (Conceptual maps - Cmaps) that will be used during the project and to make them aware of the potentialities of Cmaps and OERs for innovating teaching practices and increasing their quality and usefulness;
- a state of the art analysis will be conducted with the active collaboration of all partners, focusing on the educational options on integrated energy planning currently offered at the university and post-graduate level in the involved countries, of the legal framework and of the situation of the job market, highlighting current orientations and deficiencies; 2 case studies will be identified by each partner and the related information will be collected by filling in specific data sheets;
- external experts will realise the web platform for the shared development of the ENEPLAN Cmaps and a webGIS platform and geodatabase to serve as a common data warehouse to support project activities.

Tasks
Task 1.1. Transfer of Cmap methodology
Task 1.2. State of the art and case studies
Task 1.3. Realisation of the Cmap web platform.
Task 1.4. Realisation of a webGIS platform and geodatabase

WP2 development
The WP includes all activities related to the collaborative development, testing and practical application of ENEPLAN Cmaps, namely:

- Organisation of a 5-days workshop at M7 in Beirut (Lebanon), involving 3 persons for each partner, aimed at the collective production - starting from the case studies collected during WP1 - of the basic Cmap in English, resulting from exchanges among teachers and other experts involved in the project. Partners, coordinated by MIEMA, will contribute to the activity according to their specific skills and expertise.

- Organisation of 5 thematic workshops (5 days each) in the 5 Programme countries, involving 2 persons for each partner and aiming at enriching the Cmap 1.0 through in-depth study on 5 crucial issues - each of them representing a specific expertise of a Programme country partner: (1) energy planning and GIS tools (workshop in Rome, Italy); (2) environmental and landscape assessment (workshop in Seville, Spain); (3) RES new technologies (workshop in La Valletta, Malta); (4) Life cycle analysis and energy potential (workshop in Siena, Italy); (5) innovation, applied research and relationships with SMEs (workshop in Faro, Portugal). The results of each workshop will lead to the production of a thematic OER that will be uploaded on the project web platform and will add information to the basic Cmap. Thematic workshops will take place at M10, M13, M16, M19 e M22.

- Construction of Cmap 2.0, an upgraded version of the basic Cmap, and its validation during a dedicated 5-days workshop, involving 3 persons for each partner. Cmap 2.0 will incorporate contents of thematic OERs deriving from the thematic workshops.

- Organisation of a 8-days workshop in Amman (Jordan) for the testing of Cmap 2.0 through interaction with students. 90 students (10 for each HEI from Partner countries) and 3 persons per partner will be involved in a practical exercise for the application of the Cmap 2.0 to the concrete case studies identified during WP1, with the aim to adapt the Cmap to students’ needs and produce the final release in English and in Arabic.

Tasks

Task 2.1. Construction and validation of Cmap 1.0
Task 2.2. Development of thematic OERs
Task 2.3. Construction and validation of Cmap 2.0
Task 2.4. Testing of Cmap 2.0 through interaction with students
Task 2.5. Maintenance of the Cmap web platform and the webGIS platform and geodatabase

WP3 Quality Plan

The WP aims at assessing the overall quality of the project outputs (namely, the OERs) and activities in order to achieve the highest standards of quality of deliverables, and to do so on time and within budget. To this extent, the consortium will establish a Quality Board, formed by 1 resource for each partner, that will be in charge of drafting a Quality assurance plan and of conducting the assessments and reporting their results to the Steering Committee.

Quality assessment will focus on three main aspects of the project, each of them requiring specific assessment activities and tools:

- Quality assessment of OERs will be conducted through the application of specific evaluation criteria (such as the completeness and pertinence of information included in the OERs; the accessibility of contents and information; the usability; etc.) and through the monitoring of the ENEPLAN online discussion forum, allowing participating students and professors to comment on the quality of Cmaps and propose modifications. The Quality Board will provide the partners with all necessary indications on how to improve OERs quality.

- Quality assessment of workshops will be conducted through evaluation questionnaires prepared by the Quality Board and distributed to the participants at the end of each workshop. Questionnaires will be anonymous and will focus on: the quality of teaching; the adequacy of training materials; the usefulness and quality of Cmaps and workshops. The best ways to target the distribution and collection of the questionnaires will be agreed upon by the partners after discussing with the HEI involved. The Quality Board will analyse the questionnaires and report to the SC.
- Quality assessment of collaborative tools and cooperation activities will be assessed through a specific checklist, covering all possible problems incurred (regarding i.e. communication, transfer of documents, web tools updating, etc.) and analysing their causes. Adjustment measures will be put in place accordingly..

Tasks
Task 3.1. Quality assessment
Task 3.2. Quality reports
3.3 Installation and adjustment of software

WP4 DISSEMINATION & EXPLOITATION
The WP includes all tasks regarding the communication and dissemination of project activities and outputs. Firstly, a specific communication and dissemination plan will be prepared. Afterwards, all communication materials will be designed and realised accordingly – following shared graphic standards to ensure a homogeneous project image: the website and its basic contents, the tools for internal communication (email, video conferences…) and for external communication (newsletter, brochures, posters).

At the end of the project, a final international conference will be organised in Beirut (Lebanon), involving at least 100 relevant representatives of the target audiences identified in the dissemination plan. Invitations will be sent mainly via e-mail. The conference will represent the main multiplier event of the ENEPLAN project, aimed at sharing educational tools and approaches with national and international experts, discussing integrated energy planning and related job opportunities and educational needs across Europe and in the Mediterranean countries, and disseminating the project results. The conference proceedings will represent the project final publication and serve as guidelines for the integration between RES, energy planning, spatial planning and environmental issues.

Tasks
Task 4.1. Preparation of a shared communication and dissemination plan
Task 4.2. Website and communication materials
Task 4.3. Final conference

WP5 Management
The WP includes all activities related to the technical and financial management of the project, and aims at ensuring that the envisaged activities will be carried out and will pursue the project objectives according to the time schedule, budget and quality standards established.

ROMA3, the coordinator, will be responsible for all the reporting and financial management activities required by the EU and will be the official point of contact with the Commission for any contractual matter. It will also be responsible for communication and management of all partners within the project consortium.

The main activities aim at:
- creating and maintaining an appropriate communication framework, linking together all the project components
- planning and coordinating the project activities at consortium level, chairing the Steering Committee and the Quality Board and ensuring that deliveries and implementation of project activities are timely and provided according to contractual specifications, monitoring the project through regular peer reviews and milestones check, providing the necessary instructions to partners and taking action against partners in default
- coordinating the Steering Committee meetings
- ensuring legal, contractual, ethical, financial and administrative management of the consortium
- conduct risk assessment and anticipate future risks
- ensure overall financial control of the project, for transferring funds to partners in accordance with the overall budget, and for keeping records to the standard required.

Periodic progress meetings (video and call-conference meetings) will take place at least about every 6 months in order to review the management plan and prepare the yearly reports when due.
Tasks
Task 5.1. Technical management
Task 5.2. Financial management
2. Quality Plan

2.1 Introduction

In this document we intend to apply the procedure described within the ISO 21500 Official standard, adapting the suggested process to the peculiarities of the ENEPLAN project. The International Standard ISO 21500 provides guidance on concepts and processes of project management that are important for, and have impact on, the performance of projects. It provides high-level description of concepts and processes that are considered to form good practice in project management.

In accordance to the “ISO 21500 Guidance on Project Management”, project management is subdivided into subjects and performed through processes (a set of interrelated activities). The International Standard ISO 21500 identifies the recommended project management processes to be used during a project as a whole, for individual phases or both. The processes should be aligned in a systemic view. Each phase of the project life cycle should have specific deliverables (which are described and evaluated as below). These deliverables should be regularly reviewed during the project to meet the requirements of the financing authority, beneficiaries and stakeholders.

Within the process groups, we would include the following:
- **initiating** (develop project charter, identify stakeholders, establish project team),
- **planning** (develop project plans, define scope, create work breakdown structure, define activities, estimate resources, define project organisation, sequence activities, estimate activity durations, develop schedule, estimate costs, develop budget, identify risks, assess risks, plan quality, plan procurements, plan communication),
- **implementing** (direct project work, manage stakeholders, develop project team, treat risks, perform quality assurance, select suppliers, distribute information),
- **controlling** (control project work, control changes, control scope, control resources, manage project team, control schedule, control costs, control risks, perform quality control, administer procurements, manage communication),
- **closing** (close project, collect lessons learned).

Within the subject groups of process, we would include:
- **integration** (including the processes required to identify, define, combine, unify, coordinate, control and close the various activities and processes related to the project),
- **stakeholders** (including the processes required to identify and manage the project sponsor, customers and other stakeholders),
- **scope** (including the processes required to identify and define the work and deliverables, and only the work and deliverables required),
- **resources** (including the processes required to identify and acquire adequate project resources such as people, facilities, equipment, materials, infrastructure and tools),
- **time** (including the processes required to schedule the project activities and to monitor progress to control the schedule),
- **cost** (including the processes required to develop the budget and to monitor progress to control costs),
- **risk** (including the processes required to identify and manage threats and opportunities),
- **quality** (including the processes required to plan and establish quality assurance and control),
- **procurement** (including the processes required to plan and acquire products, services or results, and to manage supplier relationships),
Processes and subjects can be mapped in a cross-referenced table, as the following:

<table>
<thead>
<tr>
<th>Subject Groups</th>
<th>Initiating</th>
<th>Planning</th>
<th>Implementing</th>
<th>Controlling</th>
<th>Closing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration</td>
<td>- Develop project charter.</td>
<td>- Develop project plans.</td>
<td>- Direct project work.</td>
<td>- Control project work.</td>
<td>- Control changes.</td>
</tr>
<tr>
<td>Stakeholder</td>
<td>- Identify stakeholders.</td>
<td></td>
<td>- Manage stakeholders.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scope</td>
<td></td>
<td>- Define scope. - Create work breakdown structure. - Define activities.</td>
<td></td>
<td>- Control scope.</td>
<td></td>
</tr>
<tr>
<td>Resource</td>
<td>- Establish project team.</td>
<td>- Estimate resources. - Define project organisation.</td>
<td>- Develop project team.</td>
<td>- Control resources. - Manage project team.</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td></td>
<td>- Sequence activities. - Estimate activity durations. - Develop schedule.</td>
<td></td>
<td></td>
<td>- Control schedule.</td>
</tr>
<tr>
<td>Cost</td>
<td></td>
<td></td>
<td></td>
<td>- Control costs.</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Perform quality control.</td>
</tr>
<tr>
<td>Procurement</td>
<td></td>
<td>- Plan procurements.</td>
<td>- Select suppliers.</td>
<td></td>
<td>- Administer procurements.</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td>- Plan communication.</td>
<td>- Distribute information.</td>
<td></td>
<td>- Manage communication.</td>
</tr>
</tbody>
</table>


2.2 The tools

In order to meet the ISO21500 Standard, an excel file will be created whose first purpose is to interpret what
is a “good” management of project in accordance with Project Leader and ENEPLAN partnership values, beliefs and mission. The tool considers the ISO21500:2012 processes assigning to each of them a percentage of importance.

In order to get a double level of depth in evaluation, the sum of percentages of importance must make 1000 for the set of the process groups (Initiating, Planning, Implementing, Controlling and Closing).

The tool describes a three level model of evaluation to allow classifying how each process is implemented. “Level 0” means “not yet implemented”, “Level 1” means “basically implemented”, and “Level 2” means “advanced implemented”.

Quarterly, the Quality Manager updates the excel matrix, reports on its results (quality technical report) and issues a warning report used by the Project Coordinator to eventually review the project processes to better meet the above described quality standard.

2.3 The people in charge

The Steering Committee will be especially in charge for the timely delivery of technical reports and the quality review and validation.

At the management level, the Project Coordinator, supported by the Quality Manager, will issue a quarterly quality technical report, collecting data to check the advancements in the level of the processes and filling the ISO21500 matrix in order to evaluate the quality score reached by the project at that moment.

3. Monitoring and evaluation process

3.1 Introduction

The quality plan and process quality standard are closely related to the monitoring and evaluation strategy: the strategy includes both an internal monitoring process and an evaluation procedure which will measure the ‘external’ impact of the project.

Internal project monitoring will concern two levels: the management issues and the technical issues.

The evaluation strategy implements therefore the function of internal control of the project, that is a process designed to provide reasonable assurance of the achievement of objectives with regards to: effectiveness and efficiency of operations, reliability of financial reporting, and compliance with applicable laws and regulations. It implies adequate allocation of tasks and duties within the partner organizations and regular checks.

3.2 The tools
The evaluation strategy will include appropriate tools, devised to assess on an ongoing basis project relevance, efficiency and impact, to measure progress throughout its life cycle, to determine if the project responds to main target groups’ needs, to measure the level of satisfaction of beneficiaries of project activities, to determine how project impacts on social communities, to evaluate unexpected results and control all processes. The tools will be delivered to the appropriate target groups over the project duration, according to the activity schedule.

The tools presented in the Annexes are meant to check and measure processes and outputs during the project development and evaluate it at the end. Different categories of tools are devised, in accordance to what is described in the introduction (‘internal’ monitoring and ‘external’ evaluation):

✓ The **Logical Framework Matrix** *(see original project document)* represents a control list to assess any progress and the rate of success of project activities in relation to specific objectives and expected results.

✓ **Check lists** *(Annexes A, B and C)* are used as preventive actions to ensure smooth development of specific project activities, through the control of any steps needed for the achievement of the results.

✓ **Evaluation questionnaires** *(Annexes D, E and F)*, are used as means to assess the outcomes of specific project activities carried out and to take corrective measures for the critical issues which will be outlined through these tools.

Two annual progress report, one interim report (at the end of the first contractual one and half year) and one final report will be written and sent to EACEA, including a narrative section in which the advancement within the different tasks, any problems within the partnership, the communication and visibility actions launched, the interchange of knowledge and experience will be described. Moreover, any modification to the initial planning will be mentioned and reasons for changes or delays will be given, as well as the measures adopted for facing difficulties or delays will be mentioned. Also the degree of achievement of programme indicators, strategic indicators and specific project indicators will be measured on occasion of the interim and final report.

### 3.3 The people in charge

The Steering Committee will be especially in charge for the timely delivery of technical reports and the quality review and validation of the reports. At the management level, the Project Coordinator, supported by the Quality Manager, will report to the partners on project advancement on occasion of each transnational project meeting. Moreover he/she will collect in progress data from the WP Leaders, to check the advancements of deliverables and the achievement of indicators set in the Logical Framework Matrix within each Work Package.

As several partners will contribute to the same WP performing specific tasks, the WP leader will take care for collecting and integrating the contributions of the other participants to achieve performance indicators. Proposals for reviewing and updating the indicators table will be put forward by the WP leaders if required.

Each partner has undertaken to take part in the efficient implementation of the project, to cooperate, perform and fulfil all of its obligations, to notify promptly, in accordance with the governance structure of the project, any significant information, fact, problem or delay likely to affect the project, in order that corrective measures can be taken in due time.
4. Risk management

4.1 Risk analysis within the project

The project environment may impact project performance and success. ENEPLAN project considers the following potential factors:
— factors outside the organizational boundary, such as socio-economic, geographical, political, regulatory, technological and ecological;
— factors inside the organizational boundary, such as strategy, technology, project management maturity, resource availability, organizational culture and structure.

While the second factors are considered in the above mentioned quality and monitoring processes, factors outside the organizational boundary have to be carefully analysed (through a so-called risk analysis) as they may have an impact on the project by imposing constraints or introducing risks affecting the project. Although these factors are often beyond the control of the project manager, they should still be considered.

As it concerns the main preconditions and conditions required for the project implementation, these include:
- all partners should maintain their condition of technical and financial liability and effective operation over the whole duration of the project;
- it should be possible to overcome politic and bureaucratic obstacles related to flows of people travelling from MPCs to EU countries for research purpose, thanks to the support of ERASMUS+ National Offices and to the sensitization of local institutions to the project.

Risk monitoring will be a constant activity during the project. In order to perform the risk management and control function successfully, the circumstances which may produce a threat should be promptly identified and prioritised. The Steering Committee will hold responsibility for conducting regular formal reviews on such matters. In doing this, it is hoped that the level of risk embedded within the project can be minimised, and when action is required, contingency plans can be carried out in a timely manner.

The potential risks underlying ENEPLAN have been preliminarily analysed and categorised with respect to a risk rating (likelihood multiplied by impact). To manage potential risks we have outlined a set of contingencies that can be implemented to safeguard the project. Here below a table summarising the preliminary risk assessment carried out.

<table>
<thead>
<tr>
<th>Critical item</th>
<th>Risks associated</th>
<th>IMPACT</th>
<th>LIKELIHOOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information flow among the Consortium Partners</td>
<td>Lack of coordination in the exchange of information between participants</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Students drop out</td>
<td>Jeopardize OER testing phase</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Social/political instability in MPC countries</td>
<td>Serious delay in implementing activities in MPC countries</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Lack of Collaboration of the national government bodies</td>
<td>Serious risks associated with not achieving some of the project activities/deliverables</td>
<td>High</td>
<td>Medium</td>
</tr>
</tbody>
</table>
Lack of awareness, interest and skills among relevant stakeholders towards OER tools and integrated energy planning issues | Low motivation to use OER | High | Medium

4.2 The people in charge

The Steering Committee will hold responsibility for conducting regular formal reviews on such matters in order to prevent the possible consequences of the risk embedded into the project, and, when action is required, to activate contingency plans to be carried out in a timely manner. The Committee will provide inputs to the Project Coordinator on this issue to be included in the periodic monitoring reports.

4.3 Preventive actions and corrective measures

To manage potential risks we have outlined a set of contingencies that can be implemented to safeguard the project. Hereafter the contingency plan is reported:

<table>
<thead>
<tr>
<th>CRITICAL ITEM</th>
<th>RISKS ASSOCIATED</th>
<th>CONTINGENCY PLANS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information flow among the Consortium Partners</td>
<td>Lack of coordination in the exchange of information between participants</td>
<td>Definition of the standards and methods for information exchange between participants in kick-off and successive meetings. Empowerment of communication tools.</td>
</tr>
<tr>
<td>Students drop out</td>
<td>Jeopardize OER testing phase</td>
<td>Improve the effort to show the importance of the OER to the students</td>
</tr>
<tr>
<td>Social/political instability in MPC countries</td>
<td>Serious delay in implementing activities in MPC countries</td>
<td>Some logistic alternatives will be evaluated within the MPC countries in order to overcome local/regional crisis limiting the flows of people or goods.</td>
</tr>
<tr>
<td>Lack of Collaboration of the national government bodies</td>
<td>Serious risks associated with not achieving some of the project activities/deliverables</td>
<td>Involvement of the institution’s management in the communication with the national government bodies</td>
</tr>
<tr>
<td>Lack of awareness, interest and skills among relevant stakeholders towards OER tools and integrated energy planning issues</td>
<td>Low motivation to use OER</td>
<td>Dissemination strategy and plan should emphasize the involvement of relevant stakeholders in the ENEPLAN activities.</td>
</tr>
</tbody>
</table>

5. Quality of Project Deliverables

The quality of project deliverables will be evaluated through a set of indicators. Evaluation indicators vary according to the result or process which is being evaluated. The project is going to use both qualitative and
quantitative indicators. Indicators will help to get information in progress on the project effectiveness in achieving the objectives and efficiency in the optimal use of resources, and the relevance of the project activities to the needs identified. The table below summarizes the list of evaluation indicators.

<table>
<thead>
<tr>
<th>Wider objective</th>
<th>Indicators of progress</th>
<th>How indicators will be measured</th>
</tr>
</thead>
</table>
| Testing the effectiveness of Open Educational Resources based on the tool of collaborative Concept maps, to improve the quality of HE teaching and research activities in the field of integrated energy planning | -Percentage of academic staff and students involved, declaring themselves satisfied with OERs usefulness and quality  
   -Average number of visits to the OERs contained in the project web platform  
   -Number of downloads of OERs from the project web platform | -Evaluation questionnaires submitted to the academic staff and students involved, in the framework of the project quality assessment plan  
   -Number of downloads and accesses to the project platform tracked by web traffic analysis tools |

<table>
<thead>
<tr>
<th>Specific objectives of the project</th>
<th>Indicators of progress</th>
<th>How indicators will be measured</th>
</tr>
</thead>
</table>
| -Helping the modernization of higher education curricula and improving teachers’, researchers’ and students’ knowledge and skills in integrated energy planning, while innovating HE teaching and learning practices  
   -Increasing labour market relevance of learning provisions and qualifications  
   -Strengthening the relations between HEI and the wider socio-economic environment  
   -Establishing a network among Mediterranean Universities | -Number of academic staff involved in project workshops  
   -Number of students involved in project activities  
   -Percentage of academic staff and students participating in project workshops, declaring that their participation, together with the use of the OERs developed by the project, has contributed in increasing their competences  
   -Number of disciplines involved  
   -Number of university courses using the project OERs  
   -Number of enterprises and other relevant stakeholders accessing the OERs contained in the project web platform  
   -Number of Mediterranean Universities (other than partner) | -Workshops reports  
   -Evaluation questionnaires submitted to the academic staff and students involved, in the framework of the project quality assessment plan  
   -Involved HEI courses programmes  
   -Number and type of visitors of the project web platform tracked by web traffic analysis tools  
   -Number of links to the project website in external websites, found through web searches |

<table>
<thead>
<tr>
<th>Main expected results (Outputs)</th>
<th>Indicators of progress</th>
<th>How indicators will be measured</th>
</tr>
</thead>
</table>
| -State of the art and case studies report (WP1, output 1.2)  
   -Cmap web platform (WP1, output 1.3) | -Reports of the state of the art analysis completed  
   -Case studies files completed with pertinent information | -Technical reports  
   -Workshops reports  
   -Quality assessment reports |
<table>
<thead>
<tr>
<th>WebGIS platform and geodatabase (WP1, output 1.4)</th>
<th>- Project web platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Cmap 1.0 - basic conceptual map OER in English (WP2, output 2.1)</td>
<td>- Evaluation questionnaires submitted to the academic staff and students involved, in the framework of the project Quality assurance plan</td>
</tr>
<tr>
<td>- Cmap 2.0 - upgraded version of the basic Cmap incorporating the results of the thematic workshops on energy planning and GIS tools; environmental and landscape assessment; RES new technologies; Life cycle analysis and energy potential; innovation, applied research and relationships with SMEs (WP2, output 2.3)</td>
<td></td>
</tr>
<tr>
<td>- Cmap 2.0 - final release (in English and in Arabic) (WP2, output 2.4)</td>
<td></td>
</tr>
<tr>
<td>• Final conference proceedings (guidelines for integrated energy)</td>
<td></td>
</tr>
</tbody>
</table>

**INDICATORS FOR WP**

<table>
<thead>
<tr>
<th>Specific objectives of the project</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AS ABOVE</strong></td>
<td></td>
</tr>
</tbody>
</table>

**WP1 - PREPARATION/Project preparation**

- Transfer of Cmap methodology
- State of the art and case studies
- Realization of the Cmap web platform.
- Realization of a webGIS platform and geodatabase

**WP2 - DEVELOPMENT/ Project Development**

- Construction and validation of Cmap 1.0
- Development of thematic OERs
- Construction and validation of Cmap 2.0
- Testing of Cmap 2.0 through interaction with students
- Maintenance of the Cmap web platform and the webGIS platform and geodatabase

**WP3 - QUALITY PLAN/Quality assessment**
- Quality assurance plan
- Quality Reports

**WP4 - DISSEMINATION & EXPLOITATION/Dissemination and exploitation**
- Preparation of a shared communication and dissemination plan
- Website and communication materials
- Final conference

**WP5 - Management /Project Management**
- Technical management
- Financial management
6. ANNEXES

A) Check list for managing project meetings

B) Check list for reviewing administrative and management records

C) Intermediate evaluation of the project management by the partners

D) Satisfaction questionnaire for services delivered: training

E) Satisfaction questionnaire for project meetings

F) Satisfaction questionnaire for project management
Annex A

CHECKLIST FOR MANAGING PROJECT MEETINGS

**Preparation**

<table>
<thead>
<tr>
<th>Task</th>
<th>Done?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarify the objectives of the meeting</td>
<td>✓</td>
</tr>
<tr>
<td>Confirm who will attend/participate and who will chair the meeting</td>
<td></td>
</tr>
<tr>
<td>Confirm the date, time and location of the meeting with participants</td>
<td></td>
</tr>
<tr>
<td>Prepare a draft agenda and distribute it for comments/additions</td>
<td></td>
</tr>
<tr>
<td>Allocate subtasks to be carried out among the human resources in charge</td>
<td></td>
</tr>
<tr>
<td>Assemble relevant data/information (including management/monitoring reports) and distribute copies in advance to those attending the review meeting</td>
<td></td>
</tr>
<tr>
<td>Organize other logistics for the meeting (e.g. secretarial support, transport, venue, required equipment/materials for presentations, refreshments, etc.)</td>
<td></td>
</tr>
</tbody>
</table>

**The meeting**

<table>
<thead>
<tr>
<th>Task</th>
<th>Done?</th>
</tr>
</thead>
<tbody>
<tr>
<td>The available time is effectively managed, based on the agreed agenda/timetable</td>
<td>✓</td>
</tr>
<tr>
<td>Each participant is given adequate opportunity to share his/her views (the meeting is not dominated by the loudest/most talkative)</td>
<td></td>
</tr>
<tr>
<td>Key issues are clarified</td>
<td></td>
</tr>
<tr>
<td>Supporting material is distributed</td>
<td></td>
</tr>
<tr>
<td>Disagreements are cordially solved</td>
<td></td>
</tr>
<tr>
<td>A problem solving approach is taken</td>
<td></td>
</tr>
<tr>
<td>Agreement is reached (by consensus or vote) on key actions that need to be taken</td>
<td></td>
</tr>
<tr>
<td>An accurate record of discussions and decisions is taken</td>
<td></td>
</tr>
<tr>
<td>Meeting objectives are achieved</td>
<td></td>
</tr>
</tbody>
</table>

**Follow-up**

<table>
<thead>
<tr>
<th>Task</th>
<th>Done?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finalization and dissemination of a record of key decisions taken/agreements reached</td>
<td>✓</td>
</tr>
<tr>
<td>Revision to action plan and/or time schedule if/as required</td>
<td></td>
</tr>
</tbody>
</table>
### Annex B

**CHECKLIST FOR REVIEWING ADMINISTRATIVE AND MANAGEMENT RECORDS**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| **Are appropriate records being kept, and are they up to date?** | **Done?**  
  ✔ |
| **Are those responsible for keeping the records clear about their responsibilities and the record keeping procedures/systems?** |   |
| **Are record keeping systems and procedures appropriately documented (i.e. guidelines)?** |   |
| **Is the quality of information periodically checked and verified?** |   |
| **Is an appropriate level/type of training in record keeping systems provided to staff?** |   |
| **Is appropriate technology being used to record, analyze and report information?** |   |
| **Are adequate resources available to support effective record keeping and information management?** |   |
| **Are records and reports securely stored and easily retrieved?** |   |
| **Is the information summarized and reported to the Lead Partner on a regular basis, and is it then made available to the Lead Partner in a clear and usable format?** |   |
| **Is the information presented in a timely manner, and is it used by the partner to help them make informed decisions?** |   |
Annex C

EVALUATION OF THE PROJECT MANAGEMENT BY THE PARTNERS

At the end of each year of the life of the project:

<table>
<thead>
<tr>
<th>Have you been actively involved in the project development?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the project coordination as much incisive as it should be?</td>
<td></td>
</tr>
<tr>
<td>How is communication between partners?</td>
<td></td>
</tr>
<tr>
<td>Are you satisfied with the implementation of the project activities?</td>
<td></td>
</tr>
<tr>
<td>Is the project calendar well structured?</td>
<td></td>
</tr>
<tr>
<td>Is the tasks sharing well distributed among partners?</td>
<td></td>
</tr>
<tr>
<td>Do you receive feedbacks from the coordinator when requested on time?</td>
<td></td>
</tr>
<tr>
<td>How do you rate overall the project management for the period of the last year?</td>
<td></td>
</tr>
</tbody>
</table>

Do you have any comments/suggestions? ..................................................................................................................................................................................
ANNEX D

SATISFACTION QUESTIONNAIRE FOR TRAINING

To be delivered to: training participants

Activity: training

Date and location:

Issued by JUST

June 2016
QUESTIONNAIRE ON THE TRAINING APPRAISAL

GUIDELINES ON HOW TO FILL THE QUESTIONNAIRE

The questionnaire that you will answer to, provides for every question the expression of a judgment for each of the following three elements:

- **Expectation** (what is your level of expectation for the organization of the training session)
- **Satisfaction** (how much you are satisfied with the organization of the training session)
- **Importance** (how much important you consider organization of the training session)

In order to express your opinion you will use a numeric scale which consists of the integers from 1 to 6 (the value 1 corresponds to the lowest rating; 6 to the highest).
**QUESTIONNAIRE**

**OVERRIDE ASSESSMENT OF ORGANIZATION OF THE TRAINING SESSION**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>General organization and logistics of the training session</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Topics of the training session</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>Objectives fulfillment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EVALUATION OF QUALITY OF TRAINING SESSION**

<table>
<thead>
<tr>
<th>2.2</th>
<th>2.2 XPECTATION [1..6]</th>
<th>SATISFACTION [1..6]</th>
<th>IMPORTANCE [1..6]</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3</td>
<td>Trainers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>Incisiveness of topics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>Use of technical resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.6</td>
<td>Involvement of trainees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.7</td>
<td>Effectiveness of methodology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.8</td>
<td>Usefulness of training materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.9</td>
<td>Added value of interactions within the e-learning platform</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.10</td>
<td>Relevance to the trainees’ professional growth</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ANNEX E

SATISFACTION QUESTIONNAIRE FOR PROJECT MEETINGS

To be delivered to: all partners
Activity: project meeting
Date and location:

Issued by JUST

June 2016
QUESTIONNAIRE ON THE PROJECT MEETING APPRAISAL

GUIDELINES ON HOW TO FILL THE QUESTIONNAIRE

The questionnaire that you will answer to, provides for every question the expression of a judgment for each of the following three elements:

- **Expectation** (what is your level of expectation for the organization of the project meeting)
- **Satisfaction** (how much you are satisfied with the organization of the project meeting)
- **Importance** (how much important you consider organization of the project meeting)

In order to express your opinion you will use a numeric scale which consists of the integers from 1 to 6 (the value 1 corresponds to the lowest rating; 6 to the highest).
## Questionnaire

### Overall Assessment of Organization of the Project Meeting

<table>
<thead>
<tr>
<th>1.6</th>
<th>2.11</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Information related to logistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2 Preparatory documents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.3 Agenda</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Evaluation of Level of Commitment

<table>
<thead>
<tr>
<th>1.7</th>
<th>2.12</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Participation of other partners</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2 Contribution to meeting sessions from other partners</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3 Relevance and clarity of topics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4 Achievement of the targets of the meeting</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ANNEX F

SATISFACTION QUESTIONNAIRE FOR PROJECT MANAGEMENT

To be delivered to: all partners
Activity: project management
Date:

Issued by JUST

June 2016
QUESTIONNAIRE ON THE PROJECT MANAGEMENT APPRAISAL

GUIDELINES ON HOW TO FILL THE QUESTIONNAIRE

The questionnaire that you will answer to, provides for every question the expression of a judgment for each of the following three elements:

- **Expectation** (what is your level of expectation for the *project management*)
- **Satisfaction** (how much you are satisfied with the *project management*)
- **Importance** (how much important you consider *project management*)

In order to express your opinion you will use a numeric scale which consists of the integers from 1 to 6 (the value 1 corresponds to the lowest rating; 6 to the highest).
## QUESTIONNAIRE

### OVERALL ASSESSMENT OF PROJECT MANAGEMENT

<table>
<thead>
<tr>
<th></th>
<th>1.8</th>
<th>1</th>
<th>2.13</th>
<th>SATISFACTION</th>
<th>IMPORTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Structure of project time schedule</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Communication between partners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Timeliness of feedbacks from the coordinator when requested</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>Incisiveness of coordination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### EVALUATION OF LEVEL OF INVOLVEMENT

<table>
<thead>
<tr>
<th></th>
<th>1.9</th>
<th>2</th>
<th>2.14</th>
<th>SATISFACTION</th>
<th>IMPORTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Actively involved in the project development</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>Satisfied with the implementation of the project activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>Distribution among partners of tasks sharing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. **Heading 1**

   Body Text

   a. **Heading 2**

      Body Text

      i. **Heading 3**

         Body Text

         o List 1;

         o List 2;

         o List 3.