



Erasmus+ KA2 Knowledge Alliances project
“Greening Energy Market and Finance – GrEnFIn”

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WP9 – WP10 – D9.0 , D10.0 : Quality and Evaluation Plan





Work Package (WP)	WP9 – QUALITY ASSURANCE
WP Leader	P1 - University of Bologna – UNIBO
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Work Package (WP)	WP10 – PROJECT EVALUATION
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FOREWORD

GrEnFin - Greening Energy Market and Finance

GrEnFin is an Erasmus+/Knowledge Alliance project aims to provide the Energy Sector's stakeholders (energy providers, private companies, research institutes,...) the figure of the Sustainable Energy experts professional, i.e. European high skilled professionals capable to face the changing challenges in the field with an inclusive global logic.

The consortium is composed by 14 partners, 9 from European countries and 1 non-European country (Brazil). Of the 14 partners, 6 are European universities: University of Bologna, University Paris-dauphine (France), Birbeck College London (UK), Ludwig-Maximilian University Munich (Germany), Wirtshaft University Vienna (Austria), University of katowice (Poland).

These universities are joined by 7 European companies operating in the energy field and energy sustainability: HERA srl (Italy), Tauron Energia (Poland), EgoTrade srl (Italy), PSE-Planet Sustainable Energy LDA (Portugal) Speed Development Consultants (Greece), an international research institute IMPA– Institute of Pure and Applied Mathematics, based in Brazil, and a technical partner Pixel (Italy).

Tab.1:

	Partner's Name and Acronym	Partner's Country	Partner's Typology
P1	University of Bologna (UNIBO)	Italy	Higher education Institution
P2	Ludwig-Maximilians-University (LMU)	Germany	Higher education Institution
P3	Birkbeck College	UK	Higher education Institution
P4	Vienna University of Economics and Business (WU)	Austria	Higher education Institution
P5	University of Economics in Katowice (UEK)	Poland	Higher education Institution
P6	Université Paris-Dauphine (PSL)	France	Higher education Institution
P7	Tauron	Poland	Large Enterprise
P8	IMPA – Instituto Nacional de Matematica Pura e Aplicada	Brazil	Research Institute
P9	Hera	Italy	Large Enterprise
P10	PIXEL	Italy	Non-governmental association // Technical Partner
P11	EGO Energy	Italy	Small Medium Enterprise
P12	PSE – Planet Sustainable Energy	Portugal	Small Medium Enterprise
P13	MIWEnergia	Spain	Small Medium Enterprise
P14	SPEED Development Consultant	Greece	Small Medium Enterprise

In the scope of the GrEnFin project and particularly according to what is referred to WP9-WP10 – Quality Assurance and Evaluation – is developed this Quality and Evaluation Plan. It aims to facilitate the evaluation of the project's quality during its execution, focusing on the 3P model: (i) Process and Project Management; (ii) Partnership and (iii) Products.

The main goal of the Quality and Evaluation Plan is to facilitate the project management and to guide all partners on the evaluation and quality issues.

The GrEnFin project is varied and covers a wide range of activities integrated within an implementation schedule and a budget. Even though these characteristics have an effect on the evaluation, the basic principle



of an evaluation remains the same: to ensure an optimal relationship between the goal to be achieved, at reasonable cost, and the resources (human, technical and financial) that are used.



PROJECT AIMS AND OBJECTIVES

The overall aim of GrEnFin is the development of an innovative Joint Master Degree in the Green Energy and Finance targeting young students, but also a Professional Module to train companies' staff and experts already active in the job market.

GrEnFin aims to design, tests and piloting a joint/multiple educational path targeted to a new professional figure, i.e. the Sustainable Energy Expert and a professional module. Given his expected key role in favoring the transition to a more sustainable economy, the SEE must combine a number of competences usually belonging to different profiles as the engineering knowledge of the green sources of energy, the competences in sustainable economy and the quantitative skills in risk management and financial engineering. As matter of fact we believe that only this interdisciplinary approach could allow us to educate such a pivotal actor able to assure for a vital economy with an environment-preserving behavior. In the feasibility matter, the important role of the financial knowledge is discovered to be undeniable in order to realize the sustainable diversification of energy's supply thanks to a natural risk control policy and hedging.

Main Objectives

The main objective of the GrEnFin project relies in the scientific design of the new educational path and the professional modules. The project also intends to provide the Energy Sector's stakeholders community with the environment and platform to exchange knowledge, competences, experiences.

Methodology

The proposed methodology is characterized by the following macro-phases:

1. preparation/consultation phase;
2. activation of the academic study path and the professional module;
3. validation (testing and piloting).

The passage from one phase to the next one is steered by an inspiration principle assuring a consultation, reviewing, validation and dissemination as wide as possible. This inclusive inspiration has been respected also in the numerous events organized during the life of the project where a wide audience is consulted to discuss the project's contents, methodologies, stakeholders' engagements and validation/dissemination. All the phases have been conceived in view of the final goal reached through a jointly management, a QA plan and a development process fully compliant to the Erasmus Mundus policy. More precisely, when designing the Master Course the project intend to refer to Erasmus Mundus Joint Master Degrees (EMJMDs) principles and features and to the European Approach for Quality Assurance of Joint Programmes agreed standards.

The EMJMDs features and the QA of Joint Programmes agreed standards will be inspiring for and referred to particularly when designing the Master Course':

- Learning Outcomes
- Mobility Structure for Students and Teachers
- Study Programme (structure and content of the course, credits, ...)
- Admission requirements and selection Procedures principles, Recognitions and Qualifications frameworks
- Learning, Teaching and Assessment of Students principles
- Internal Quality Assurance monitoring processes

The followed methodology will be represented by a first draft which identifies the innovative modules and methodologies to test (during the First GrEnFin Summer School) based on the consortium experience, the actual educational offer and an external consultation.



An analytical report of the existing national and international programmes in Energy Finance field has been done and It was found that there are no courses based on a balanced mixed of:

- **Scientific/Technological Track**
- **Risk and Finance Track**
- **Social Welfare-Policy and Economic Track**

The current educational offer consists of Economics, Management and Engineering degrees with elective modules in the topics of Environment and Sustainability but the QUANTITATIVE FINANCE addressed to the hedging of the natural risk involved in the sustainable transition, doesn't appear in any current educational offer.

Starting from data collected, the external consultation and the partners' experience, the partners will prepare and discuss (in a virtual conference) the draft joint curriculum which will be presented in different forms, including PDF text files and interactive internet text on the project web site. The curriculum will be described including the professional profile description, the employability paths, the competences to be acquired by learners and their learning outcomes, the modules and course units presented in ECTS credits and the mobility paths of the joint programme.

A summer schools in Bologna (M9) is implemented in order to test some module and the new educational methodologies. During the summer school brainstorming activities will be organized in order to validate the most suitable and effective methodology. Reports will be produced to assure deliverability of the pedagogical methodologies we are testing and of the joint work of academies-enterprises as best-practicing for a European green reconversion. The tested activities organized after the workshop at closure of the first summer school, will incorporate the advices coming from the stakeholders' consultation and hence will be representative of a wider external viewpoint.

The tested activities organized after the workshop at closure of the First Summer School, will incorporate the advices coming from the stakeholders' consultation and represents a wider external viewpoint.

SURVEY:

The starting point for the consultation is the mapping of the energy market that has been discussed at the November kick-off meeting in Bologna. The reason for the grounding is clear, i.e. that only a solid assessment of the characteristics of the market allows for a proper survey.

This section aims at classifying the different stakeholders in macro-groups, that will ultimately be the target recipients of the survey. For each stakeholder, the main risks related to the energy transition are discussed.

At the highest level, four categories can be identified:

1. Financials;
2. Energy producers;
3. Industry;
4. Governments & other policymaking entities.

The main purpose of our survey is to provide a detailed assessment of the challenges and needs of the energy market in the current transitioning context. In order to do so, two main objectives have been pursued in the design phase:

1. The need to cover the whole market, i.e. obtaining a comprehensive assessment of the current and future situations for producers, consumers (industrial), financiers and researchers;



2. The need to gather in-depth information across a broad range of topics, i.e. current and future needs, skills needed for an academic curriculum and for continuous learning.

The questionnaire was designed as an online tool. One questionnaire for each stakeholder group has been uploaded to the Project platform and shared with users. The platform has been deliberately left open to the public, in order to gather relevant inputs also from stakeholders not directly invited to collaborate.

The main dissemination channel has been the contact network of each partner, hence reached via email or other direct contact channels. Social media have also been used for the dissemination.

The success of the survey has been analysed in the report, together with the discussion of results. 4 KPIs (Key Performance Indicators) has been used to assess the performance, i.e.:

- ✓ Number of surveys collected and analysed
- ✓ Number of countries covered by the survey
- ✓ Distribution of organizations taking part in the survey by macro-category
- ✓ Response rate of contacted stakeholder
- ✓ 4 different macro-categories of stakeholders have been targeted by the survey. The aim of the choice for the survey setup was to cover every part of the energy market, i.e. Producers, Consumers (Industrial), Financers and Researchers.
- ✓ The respondent profile has been detailed at various level:
 - ✓ Profile (within the macro-category);
 - ✓ Ownership type;
 - ✓ Size;
 - ✓ Home country;
 - ✓ Internationalization;
 - ✓ Role of the responding person in the organization.

It's now time to discuss the possible criticality of the tested learning, after the First Experience with the Summer school implemented in order to test some module and the new educational methodologies. The summer school is the opportunity for each partners to show the possible criticality of the tested learning outcomes organized after the end of the workshop (during the last day of the First GrEnFin Summer School).

As we already know, the GrEnFin project aims to provide the Energy Sector's stakeholders (energy providers, private companies, research institutes,...) the figure of the Sustainable Energy experts professional, i.e. European high skilled professionals capable to face the changing challenges in the field with an inclusive global logic. The main results are the development of an innovative Joint Master Degree in the Green Energy and Finance targeting young students, but also a Professional Module to train companies' staff and experts already active in the labor market.

The Joint Degree and the Professional Module will shape "good professionals" that can blend technical issues on green energy and sustainable finance, quantitative analysis and topics in economic policy and business. The good professionals will be able to handles several issues concerning the green energy market, from production to distribution, as well as the knowledge of "green financial products" to foster a sustainability transformation of the energy sector. That's why the role of companies in the GrEnFin Alliance, as key market players, is crucial and structural in order to identify the specific needs and priorities of the job market and, consequently, to



define the expected learning outcomes, the key competences and skills of the professional profile to be developed.

There will be also a Second Summer Schools (in Katowice, M21) aimed to test a pilot professional module on green energy finance along with contents and methodologies of the new joint master particularly addressed to develop entrepreneurial, transversal and soft skills in green energy and finance. Moreover a pilot class will test the projected study path of the joint master degree in green energy finance.

Pilot Class of the Study Plan and Final Curriculum Development :

Based on the evidence coming from activities of WP2 and WP3, during the third year of the project will be implemented a pilot of the study plan involving the activation of the projected study plan inside the existent double degree agreements (UNIBO, LMU, UEK), while the HEIs still not awarding double degrees (Birkbeck college, Vienna University of Economics and Business, Université Paris-Dauphine) will activate the corresponding procedures and processes in order to establish the new course programme. All the designing/piloting phases have been conceived in view of a final goal reached through a jointly management, QA plan and a development of a curriculum fully compliant to the Erasmus Mundus policy. More precisely, the EMJMDs features and the QA of Joint Programmes agreed standards will be inspiring for and referred to particularly when designing the following Master Course features in all the WPs concerned (WP2,WP3, WP4,WP5).

The advisory board composed by both academies and industries of the consortium, will suggest corrective actions for the criticality highlighted by the test results defining all the main aspects of the degree, i.e. the credits assigned to the modules and to the internships/stages activities, the accreditation as joint degree according to the academic legislations of each countries.

All the activities will involve the strategic board and will be done in a work meeting organized in Bologna (M36) along with a closure one-day conference.

- Learning Outcomes
- Mobility Structure for Students and Teachers
- Study Programme (structure and content of the course, credits, ...)
- Admission requirements and selection Procedures principles, Recognitions and Qualifications frameworks
- Learning, Teaching and Assessment of Students principles
- Internal Quality Assurance monitoring processes

The piloting phase will be completed by the activation of a 3-days event called **“GrEnFin Full Immersion experience”** that will take place in Bologna - Bertinoro (M33). Here students and professionals will live a unique experience of full-time sharing activities involving students and professionals and aimed to validate the tested contents and methodologies.

It will include the following agreed sections:



- A) Design of the Management of the programme: organizational structure, including academic boards, advisory board, management board, secretariat and the role of industries on them
- B) Mobility Plan
- C) Didactical plan of the Programme
- D) Learning Outcomes

WORK PLAN DESCRIPTION

GrEnFlN project is comprised of 11 work packages (WP) distributed among the 14 partners. Below is presented an overview of project work plan and a brief description of each WP, focusing on activities and results.

Tab.2:

WORK PACKAGES	YEAR 1 1 NOVEMBER 2019 - 31 OCTOBER 2020												YEAR 2 1 NOVEMBER 2020 - 31 OCTOBER 2021												YEAR 3 1 NOVEMBER 2021 - 31 OCTOBER 2022											
	M1 - NOV	M2 - DIC	M3 - JAN	M4 - FEB	M5 - MARCH	M6 - APR	M7 - MAY	M8 - JUNE	M9 - JULY	M10 - AUG	M11 - SEPT	M12 - OCT	M13 - NOV	M14 - DIC	M15 - JAN	M16 - FEB	M17 - MARCH	M18 - APR	M19 - MAY	M20 - JUNE	M21 - JULY	M22 - AUG	M23 - SEPT	M24 - OCT	M25 - NOV	M26 - DIC	M27 - JAN	M28 - FEB	M29 - MARCH	M30 - APR	M31 - MAY	M32 - JUNE	M33 - JULY	M34 - AUG	M35 - SEPT	M36 - OCT
	Start-Up Phase						Implementation Phase																		Validation and Final Test											
WP1 PROJECT MANAGEMENT																																				
WP9 QUALITY ASSURANCE																																				
WP10 PROJECT EVALUATION																																				
WP2 STAKEHOLDERS CONSULTATION, VALIDATION ACTIVITIES AND SURVEY																																				
WP8 BUSINESS-ACADEMIA NETWORK IN ENERGY FINANCE AND GRENFLN-HUB V-PLATFORM ESTABLISHMENT																																				
WP11 DISSEMINATION AND EXPLOTATION OF RESULTS																																				
WP3 DRAFT CURRICULUM DEVELOPMENT																																				
WP4 PILOT CLASS OF THE STUDY PLAN																																				
WP5 FINAL CURRICULUM DEVELOPMENT																																				
WP6 ANALYSIS AND DRAFT OF THE PROFESSIONAL MODULE																																				
WP7 REVISION PATH AND FINAL PROFESSIONAL																																				

Here below is a summary table of GrEnFlN WPs.

Tab.3:

Work Package number	Work Package title	WP Leader	From / to	Main Task
WP1	PROJECT MANAGEMENT	P1 UNIBO	M1 – M36	Planning, management and monitoring of the project for all its duration.
WP2	STAKEHOLDERS CONSULTATION, VALIDATION ACTIVITIES AND SURVEY	P1 UNIBO	M1 – M21	Arrange a stakeholders survey and draft a plan of brainstorming activities to define the best way to transfer the aimed skills.
WP3	DRAFT CURRICULUM DEVELOPMENT	P1 UNIBO	M1 – M24	Draft of a basic structure of learning outcomes



Work Package number	Work Package title	WP Leader	From / to	Main Task
				concerning the Joint degree.
WP4	PILOT CLASS OF THE STUDY PLAN	P3 Birkbeck & P5 UEK	M16 – M34	Test the study plan by a pilot class inside existing DD agreements.
WP5	FINAL CURRICULUM DEVELOPMENT	P2 LMU	M30 – M36	Provide a final draft of the curriculum (starting from WP3 and WP4 outcomes).
WP6	ANALYSIS AND DRAFT OF THE PROFESSIONAL MODULE	P9 HERA	M10 – M33	Draft of a basic structure of learning outcomes concerning the professional module.
WP7	REVISION PATH AND FINAL PROFESSIONAL MODULE DESCRIPTION	P5 UEK	M21 – M29	Final draft of the basic structure of the learning outcomes and basic structure of the professional module
WP8	BUSINESS-ACADEMIA NETWORK IN ENERGY FINANCE AND GRENFLN-HUB V-PLATFORM ESTABLISHMENT	P10 PIXEL	M1 – M36	Establish the web site of the project and the virtual platform providing several services as eLearning and web-assisted facilities.
WP9	QUALITY ASSURANCE	P1 UNIBO	M1 – M36	Implement a quality control system (QAS) that will monitor the overall process both at the consortium and institutional level.
WP10	PROJECT EVALUATION	P4 WU	M7 – M36	Provide the formative and summative evaluation of project results.
WP11	DISSEMINATION AND EXPLOITATION OF RESULTS	P6 Paris Dauphine	M1 – M36	Dissemination and exploitation of the results.



PROJECT MONITORING

COOPERATION AND COMMUNICATION

The consortium cooperation and communication will be based on 4 different pillars:

- 1) **Management model**: empowering and sharing responsibilities, equal and per work package. The partners will be organized by working groups and will be active involved in project development and participate in decision making and validation. There is a partnership agreement in which some common procedures are established at the level of communication model, management of working groups, decision-making mechanisms and communication obligations of each partner;
- 2) **Open and daily communication**: The majority of technical communication and remote management will be done via email, Skype, telephone and management online tool. The meetings planned are of extreme importance as it meant to be a forum to locate points of management, as well as discussion and elaboration of technical work;
- 3) **Decision making process**: all situations will be analysed and all decisions will be taken collectively after all the facts are submitted to the restricted Quality Board and/or Steering Committee in order to avoid the internal conflict of interest as described in the PMF **(7.3 Conflict Management)**.

If no decision is reached, the project coordinator will submit a preliminary decision to all partners for their comments and approval. The decision can be altered, taking into account all partners' opinions, until an amicable and mutual decision is agreed.

Some of the partners are responsible/co-responsible for specific WP, but all partners will always take part in all WPs activities.

Decisions will be taken upon discussion among partners to collect and merge the different points of view. Draft documents will be circulated among partners for comments, integrations and approval. The aim of this policy is to create an information-sharing environment where everyone can support the other partners offering its own specific know-how and expertise.

The communication tools to be used are: skype-meetings, meetings, e-mail, TEAMS, EU project website and related communication platform. Skype and flash meetings will be regularly organized to guarantee that the positive environment of sharing information is preserved.

In the end, if a conflict actually emerges even if this strategy has been well implemented, the GrEnFin Project Coordinator is in charge to collect the complains and try to solve them through a specific channel of discussion between the partners involved. The GrEnFin Project Coordinator will evaluate how to manage this first level of conflict resolution, and she will consult for advice the Steering Committee if needed.

If this first level of conflict management will not reconcile the actors of the dispute, the Quality Board will be involved in the process with the aim to solve the conflict.

In case of a very severe conflict, which is impossible to handle with the before mentioned strategies, the following instances will be consulted: the Quality Agency Assurance (both at the national and European level), the Offices for Mobility and EU Programmes (both at the national and European level), and the European Union Erasmus+ staff. Final decisions aimed to guarantee and preserve the safeness of the project, will be taken by the project leader if necessary.



PROJECT'S MEETINGS

Meetings play a key role in GrEnFin project, allowing face-to-face project monitoring. They provide the opportunity to strengthen the partnership allowing developing common tasks, information exchange, joint problem solving and definition of next steps and to do list.

In each meeting UNIBO, as a coordinator will define the next meeting dates: the agenda will be sent by the project coordinator to all partners at one month or 15 days before each meeting.

During each Project meeting the Coordination Unit (CU) will take the minutes. All minutes must contain: (i) date; (ii) location; (iii) presentations; (iv) topics covered; (v) decisions taken; (vi) tasks to be carried out by all partners and deadlines. The minutes will be shared on the platform within around 15 working days. It is expected that the partners will give feedback of the minutes after they have received it.



ACTIVITIES AND RESULTS

The definition of each WP has been designed to ensure a balanced distribution between the objectives and activities of the project.

Tab.4:

WORK PACKAGE		PARTNER
WP1	PROJECT MANAGEMENT	UNIBO
WP2	STAKEHOLDERS CONSULTATION, VALIDATION ACTIVITIES AND SURVEY	UNIBO
WP3	DRAFT CURRICULUM DEVELOPMENT	UNIBO
WP4	PILOT CLASS OF THE STUDY PLAN	BIRKBECK, UEK
WP5	FINAL CURRICULUM DEVELOPMENT	LMU
WP6	ANALYSIS AND DRAFT OF THE PROFESSIONAL MODULE	HERA
WP7	REVISION PATH AND FINAL PROFESSIONAL MODULE DESCRIPTION	UEK
WP8	BUSINESS-ACADEMIA NETWORK IN ENERGY FINANCE AND GRENFLN-HUB V-PLATFORM ESTABLISHMENT	PIXEL
WP9	QUALITY ASSURANCE	UNIBO
WP10	PROJECT EVALUATION	WU
WP11	DISSEMINATION AND EXPLOTATION OF RESULTS	PARIS DAUPHINE

For logistical reasons, some of the WPs will run simultaneously while others will depend on the completion of an earlier WP. Consortium management and quality and evaluation assurance will be ongoing throughout the project to ensure the highest standards, while dissemination and exploitation and valorisation will also be a key theme in everyone's minds to ensure long-term sustainability and mainstreaming of the project's results. Certainly dissemination and exploitation will target a diverse range of channels and different levels (i.e., local, regional, national, European, making particular use of transnational networks wherever possible).

All WP's have a lead partner who works closely with the project coordinator and is responsible for ensure that all WP activities and results will be developed with high quality standards. All partners participate actively in all WPs and are co-responsible to achieve WPs objectives and outcomes.

All work documents should respect the template agreed by the partnership. All templates should include, as illustrated below: (1) project name; (ii) Erasmus+ logo; (iii) disclaimer text (just for final products); (iii), project logo; (iv) document name; (v) date.

QUALITY AND EVALUATION CONCEPTS

Evaluation is a process which (a) supports a project, by measuring the extent to which the objectives are met, (b) identifies achievements, (c) identifies areas for improvement, (d) encourages decisions to be taken, including changes to objectives and the project methodology.

Quality assurance is defined in technical environments as: 'the operational techniques and activities that are used to fulfil the requirements for quality.

Below is given an overview of terms and concepts concerning quality assessment and evaluation of the GrEnFln project.

Tab.5

CONCEPTS	Evaluation	Systematic collection and analysis of information on the actual performance of a project. Its aim is to analyze the relevance, progress, success and cost-effectiveness of the project. An evaluation compares planned results with the actual results of a project. It is a diagnostic tool.
	Monitoring	Continuing management exercise. Its aim is to supervise the accounting and administrative processes of a project. When implementing a project, monitoring deals almost exclusively with the conversion of inputs into outputs. This exercise will help evaluate if what was supposed to be done really is. Adjustments to the project are possible when monitoring is done throughout the project management life cycle.
	Performance measures	Indicators that provide information (either quantitative or qualitative) on the extent to which the results of a project have been achieved. Evaluation is often confused with measures used to evaluate. Any activity which aims at interpreting results, or data obtained from measures, are part of an evaluation. To assure that the evaluation process leads to good decision-making, it must rest on correct and precise measures.
	Qualitative measuring	Aims at collecting data in order to describe and evaluate a situation or an activity. Qualitative measuring tends to be more anecdotal. Case studies are a good example.



	Quantitative measuring (KPI)	Aims at collecting data in order to measure (through numbers and statistics) the range or the scope of an activity. Examples of quantitative measures include the number of end users in a project, their age or education level. Quantitative measures are often obtained through surveys.
	Efficiency	Refers to producing planned outputs within budgetary limits and established deadlines. For example: Was the implementation of the project well managed?
	Effectiveness	Refers to achieving planned results and contributing to attain established goals and objectives. For example: To what extent were the project's objectives achieved?
	Impact	Refers to the intended or unintended, negative or positive, consequences of a project, some of which happen only some time after the end of the project. For example: What were the consequences and the effects of the project for the target groups?
TERMS	Project goals	A general statement of desired outcomes to be achieved over a specified period of time (the reasons for which the National Agency wishes to undertake the project).
	Project objectives	The essential and long-term benefits towards which efforts are directed and for which outputs are to be produced.
	Outcomes	Products and activities stemming from the project and delivered to the project's target population, stakeholders and policy makers. They are also the specific results obtained from the management of inputs.
	Inputs	Activities and resources (human, material, financial) used to carry out activities, produce outputs and achieve results.
	Results	The consequences or changes directly attributed to the activities of the project. The results achieved may be measured with respect to the inputs, outputs, goals and objectives of the project.
	Indicators	A description of the project's objectives in terms of quantity, quality, target group(s), time and place.



QUALITY AND EVALUATION GOALS

Evaluation is an important part of project management. It consists of measuring the effects of the project. Its goal is to learn from the evaluated project, in order to better understand it and to improve it. Project evaluation consists of:

Describing the flow of a project and its activities;

- Identifying the progress achieved and the results obtained through the implementation of the project, by collecting appropriate data and submitting it to a comprehensive and systematic analysis;
- Making a value judgment on the results identified and comparing them with established objectives and in accordance with predetermined criteria;
- Using the process to gain a better understanding of the project or of its completed activities, and drawing lessons that could potentially change ongoing activities in order to better align them with the project's goals.

Evaluation allows the partners to become **aware of**:

- Their perceptions of the goals and objectives of the project, its activities, its flow and the use of resources to bring it to fruition;
- The overall results achieved as well as the impact and outcomes of the overall project and its activities.

The aim of this Quality and Evaluation Plan is to ensure that the GrEnFin project goals are met to the highest standard. Specific **aims** are to:

- Design an evaluation strategy for the transfer process focusing on the QAS model;
- Develop assessment tools to evaluate the application, efficiency and impact of the project;
- Measure progress of the project through the entire timeline;
- Establish quality control (i.e. indicators and procedures to ensure project results);
- Monitor each WP and produce interim and final evaluations and analysis of impact.



QUALITY AND EVALUATION METHODOLOGY

Taking into account the goals outlined, the project evaluation strategy and the consequent methodology is developed through the collaboration of project partners. This strategy will be focused on a QAS: Quality Assurance System.

It is mainly related to the monitoring of the effective implementation progress in comparison with the planned work plan, with special reference to the project milestones. Thus, the Internal Interim reports should be considered a continuous process generated in real time by each project partner.

In conclusion, it can be assumed that every project member will take part in the Internal Evaluation Process, taking into account the multi tasks and interdisciplinary aspects of the project activities.

It is expected that by following this methodology, project deliverables are developed in time and, furthermore, ensure the development of these in accordance with the project goals.

This project Quality and Evaluation Plan was developed with the intention to simplify the methodological approach of evaluation and monitoring. The same principle is applied to the evaluation instruments. Several assessment tools will be developed during the project life to ensure that all dimensions of the project will be evaluated.

Below are present the core evaluation milestone of the GrEnFln project.

Tab.6:

EVALUATION MILESTONES		
WP	Outcomes	Schedule
WP1	MS1.1 Organization of Project Meetings throughout the entire Project time lapse MS1.2 Definition and writing of a Project Management Framework MS1.3 Desing and approval of a dedicated Partenership Agreement for each partner of the consortium considering rights and duties between the coordination unit and the single partner MS1.4 Completion of a periodic report to monitor the quality and the financial progress of GrEnFln Project and Consortium	M1 – M36
WP2	MS2.1 Design of a GrEnFln database (M3) MS2.2 Completion of report on needs and gaps of the main target groups, state-of-the-art in sustainable finance and energy market education and professional service-learning education. Definition of the consultation's document structure and submission (M6) MS2.3 Completion of the validation's activities and best practicing report on the joint work Academia-Industries to green reconversion (M21)	M1 – M21
WP3	MS3.1 Test of learning outcomes concerning the academic path (M9-M21)	M1 – M24



	MS3.2 Completion of the design of the academic educational path and community training materials (M24)	
WP4	MS4.1 Completion of the descriptive document of activation of modules and selection of the pilot class (M24) MS4.2 Final report on the result of the piloting/full immersion experiences, criticalities and possible corrections (M32-M33)	M16 – M33
WP5	MS5.1 Completion of the final academic curriculum (M36)	M30 – M36
WP6	MS6.1 Preliminary definition and test of the learning outcomes/methodologies concerning the professional module (M12-M21) MS6.2 Completion of the description of the facilities and services to implement in the GrEnFln-Hub VPlatform (M12)	M10 – M22
WP7	MS7.1 Completion of the final design of the professional module and community training materials (M29)	M21 – M29
WP8	MS8.1 Development of the GrEnFln Website (M11) MS8.2 Development of the GrEnFln-Hub VPlatform: e-learning services, didactical materials, services/utilities for industries, lab services (M29)	M1 – M29
WP9	MS9.1 Development of the project quality plan and quality assurance survey (M1-M36)	M1 – M36
WP10	MS10.1 Completion of the evaluation process through questionnaires (M32) MS10.2 Implementation of recommendations from partners and evaluation questionnaires (M36) MS10.3 External evaluation of the quality of the project (M12-M24-M36)	M1 – M36
WP11	MS11.1 Completion of the local and global exploitation plan of the project results (M36)	M1 – M36

The following table 7 report the deliverables expected from every WP and the corresponding deadline.

Tab. 7:

Nr of WP	Lead organization (Pn)	Deliverable nr	End date	Title of the deliverable	Dissemination level (Public, Restricted, Confidential)	Milestone
1	P(1)	D1.1	M6	GrEnFln Project Management Framework	Public	MS1.2
1	P(1)	D1.2	M3	GrEnFln Partnership agreement	Public	MS1.3



Nr of WP	Lead organization (Pn)	Deliverable nr	End date	Title of the deliverable	Dissemination level (Public, Restricted, Confidential)	Milestone
1	P(1)	D1.3	M12-M24-M36	Annual quality and financial reports	Public	MS1.4
1	P(1)	D1.4	M1 – M36	Associate Partner Recruitment Process	Public	MS11.1
1	P(1)	D1.5	M1 – M36	Privacy Management	Public	?
1	P(1)	D1.6	M1 – M6 – M8 – M14 – M21 – M29 – M36	Transnational Project Meetings	Public	MS1.1
1	P(1)	D1.7	M11 – M14 – M18 – M19 – M20 – M21 – M29 – M36	Local Workshops	Public	MS2.3 MS11.1
1	P(1)	D1.8	M8 – M21 – M33	Summer Schools and Intensive Programmes	Public	MS3.1
2	P(1)	D2.1	M6	Building of the data base for the stakeholders consultation - list of contacts /number of submitted invitation per target groups	Public	MS2.1
2	P(1)	D2.2	M4	Definition of the consultation's document structure and details of submission-questionnaires and descriptions of the submission process	Public	MS2.2
2	P(1)	D2.3	M6	Report on the consultation-Survey's Report	Public	MS2.2
2	P(1)	D2.4	M11 – M14 - M21	Reports on the validation's activities	Public	MS2.3
2	P(1)	D2.5	M21	Final Survey Report	Public	MS2.2
2	P(1)	D2.6	M11 – M14 - M21	Best-practicing reports on the joint work of academies-enterprises for a green reconversion - Merge of several reports where the joint work of	Public	MS2.3



Nr of WP	Lead organization (Pn)	Deliverable nr	End date	Title of the deliverable	Dissemination level (Public, Restricted, Confidential)	Milestone
				academies and industries is involved		
3	P(1)	D3.0	M6	Report about the current educational offer in near field (EU and extra-EU vision)	Public	MS3.2
3	P(1)	D3.1	M6 - M8	Preliminary draft of the basic structure of the course and learning outcomes	Public	MS3.2
3	P(1)	D3.2	M9 - M22	Reports about the Testing Phase	Public	MS3.1
3	P(1)	D3.3	M11 - M22	Reports about the criticality of the tested learning and possible solutions	Public	MS3.1
3	P(1)	D3.4	M24	Final draft of the basic structure of the learning outcomes	Public	MS4.2
4	P(3) P(5)	D4.1	M21	Descriptive document of Activation of modules in the university of the consortium involved in the existent double degree	Public	MS4.1
4	P(3) P(5)	D4.2	M21	Report on the organization of seminars to reach invited external stakeholders as industries and institutions and to disseminate the projects in the university not involved in the double degree agreements	Public	MS2.3 MS11.1



Nr of WP	Lead organization (Pn)	Deliverable nr	End date	Title of the deliverable	Dissemination level (Public, Restricted, Confidential)	Milestone
4	P(3) P(5)	D4.3	M24	Report concerning the selection of the pilot class	Public	MS4.1
4	P(3) P(5)	D4.4	M33	Report on the Experience of the piloting (descriptive report completed by the perceived appreciation of students and the opinion of the partners involved)	Public	MS4.1 MS10.1 MS10.2
4	P(3) P(5)	D4.5	M32	Report based on the workshop in Munich (M29) and the virtual conferences (M32) of the partners organized to discuss the possible criticality of the tested learning outcomes	Public	MS1.1 MS4.2
4	P(3) P(5)	D4.6	M33	Report concerning the selection of the participants to the “GrEnFIn Full Immersion experience” and the description of the proposed activities	Public	MS4.2
4	P(3) P(5)	D4.7	M33	Final report concerning the “GrEnFIn Full Immersion experience”	Public	MS4.2
4	P(3) P(5)	D4.8	M34	Reports about the criticality of the tested learning and possible solutions	Public	MS4.2
5	P(2)	D5.1	M30 - M34	Intermediate Reports on the revised curriculum	Public	MS4.2 MS5.1
5	P(2)	D5.2	M36	Report on the Final curriculum development	Public	MS5.1



Nr of WP	Lead organization (Pn)	Deliverable nr	End date	Title of the deliverable	Dissemination level (Public, Restricted, Confidential)	Milestone
6	P(9)	D6.1	M12	Report on the Preliminary definition of learning outputs of the professional module (based on the outcome of the stakeholders' consultation)	Public	MS6.1
6	P(9)	D6.2	M12	Descriptive document of the facilities and services to implement in GrEnFln-Hub VPlatform	Public	MS6.2
6	P(9)	D6.3	M22	Report on the Preliminary definition of the new educational methodologies to implement for the professional module	Public	MS6.1
7	P(5)	D7.1	M22	Final report concerning the "Summer Training"	Public	MS7.1
7	P(5)	D7.2	M23	Report on the Preliminary draft of the basic structure of the professional module and its criticalities	Public	MS7.1
7	P(5)	D7.3	M30	Report on the Final draft of the basic structure of the learning outcomes	Public	MS7.1
7	P(5)	D7.4	M30	Report on the Draft of the Consortium Agreement	Public	?
8	P(10)	D8.1	M11 - M23 – M29	Descriptive document on the Project website	Public	MS8.1
8	P(10)	D8.2	M29	Descriptive document on the Virtual platform	Public	MS8.2
8	P(10)	D8.3	M29	Report on the E-learning/didactical	Public	MS8.2



Nr of WP	Lead organization (Pn)	Deliverable nr	End date	Title of the deliverable	Dissemination level (Public, Restricted, Confidential)	Milestone
				material to be uploaded on GrEnFIn-Hub VPlatform		
8	P(10)	D8.4	M29	Report on the implementation of the Services/utilities for industries	Public	MS8.2
9	P(1)	D9.0	M6	Quality and Evaluation Plan	Public	MS9.1
9	P(1)	D9.1	M6 – M12 – M18 – M24 – M30 – M36	Reports concerning the Internal Quality Assurance Process	Public	MS1.4 MS9.1
9	P(1)	D9.2	M12 – M24 – M36	Report on the Internal discussion to elaborate the qualitative and the quantitative insights coming from the external monitoring. - Annual Quality Report (PQB)	Public	MS9.1 MS10.3
10	P(4)	D10.0	M6	Quality and Evaluation Plan	Public	MS9.1
10	P(4)	D10.1	M1 - M6 – M8 – M11 – M14 – M17 – M20 – M23 – M26 – M29 – M32 – M35 – M36	Final reports concerning the internal evaluation of the results	Public	MS10.3
10	P(4)	D10.2	M6 – M8 – M11 – M14 – M19 – M20 – M21 – M29 – M33 – M34 – M36	Report on the Consultation survey on the virtual platform	Public	MS10.1 MS10.2
11	P(6)	D11.0	M8	Dissemination Plan	Public	?
11	P(6)	D11.1	M12 – M24 – M36	Annual Report on the Launch of a new educational model based on international	Public	MS11.1



Nr of WP	Lead organization (Pn)	Deliverable nr	End date	Title of the deliverable	Dissemination level (Public, Restricted, Confidential)	Milestone
				cooperation (about the dissemination events of the year)		
11	P(6)	D11.2	M12 – M24 – M36	Annual Report on the Project website	Public	MS8.1 MS11.1
11	P(6)	D11.3	M12 – M24 – M36	Annual Report of the Dissemination Committee	Public	MS1.4
11	P(6)	D11.3	M12 – M24 – M36	Annual document on the visibility of the Project-acquired reputation of the consortium-possible enlargement of the consortium and imitation phenomenon in other sectors	Public	MS1.4 MS11.1

If you need more information about the deliverable D9.0 – D10.0, please check the ANNEX I - Single document and amendment of the titles.



QUALITY AND EVALUATION PROCESS (QEP)

The Quality Evaluation Process (QEP) adopted for the GrEnFin project allows a tri-dimensional assessment of project progress: i) process and project management; (ii) partnership; (iii) DELIVERABLES.

This model aims to:

- Develop clarity and realism about the project objectives;
- Recognize the importance of a partnership in creating value;
- Develop an environment of knowledge sharing;
- Increase motivation and confidence;
- Monitor and measure;
- Identify strengths and weaknesses;
- Implement improvement measures just in time;
- Create useful DELIVERABLES and CONTRIBUTE TO THE BEST-PRACTICES IMPROVEMENTS



PROCESS AND PROJECT MANAGEMENT

The way that the GrEnFln project is being driven forward and managed is intended to be assessed, measured and regulated considering the following aspects:

- Clarity and feasibility of the project objectives;
- Clarity and feasibility of the work groups objectives;
- Fulfilment of the planned schedule;
- Adequacy of the management model;
- Execution level of the financial resources;
- Efficiency of the project communication platform;
- Adequacy of the planning, logistics and usefulness of project activities;
- Involvement of all partners in the continuous improvement of processes.



PARTNERSHIP

Checking the effectiveness of the partnership will give a sense of progress and direction for the future. The partnership interactions are intended to be evaluated at an internal impact level and also at an external level, considering the following aspects:

- Clarity and importance of the project objectives for each partner;
- Level of sharing, trust, clarity of responsibilities and tasks;
- Promotion of higher quality results within working groups;
- Overcome the geographic distance between partners;
- Assurance of the WP planning and control;
- Promotion of empowerment and communication;
- Monitoring of partnership performance;
- Reengineering the working process.



DELIVERABLES

The level of the quality of the deliverables and their usefulness for the partners, and stakeholders and how they are evaluated will be explored, in a context of future sustainability, considering the following topics:

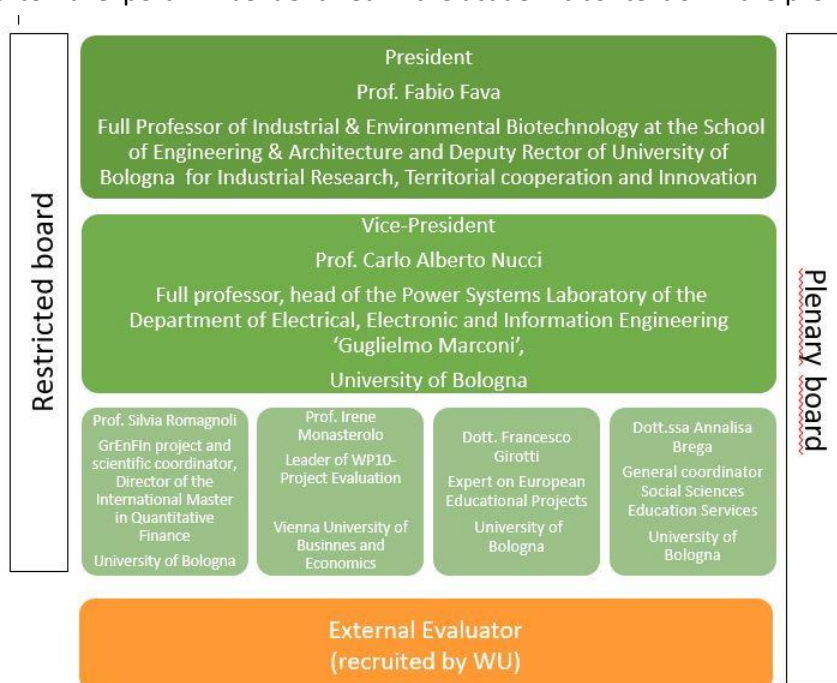
- Level of the quality;
- Identification of weak and strong points of the deliverables/results;

QUALITY PLAN

The quality assurance system (QAS) monitors the overall process both at the consortium and institutional level. The QAS strategy is based on the evaluation of all the project phases and in particular:

- 1) evaluation of the project management;
- 2) evaluation of the project activities;
- 3) evaluation of the overall results.

The Quality Board has been announced during the kick-off project meeting (Bologna 27 – 29 November 2019). The restricted QB is nominated by the Coordination Unit and it is composed by four persons in charge for the quality. The plenary QB includes also an expert external to the partners' institutions. In order to avoid the internal conflict of interest, the Coordination Unit is not involved in the identification of the external evaluator but WU (which is member of the restricted QB and leader of the evaluation WP) will be in charge for his recruitment. The external expert will be identified in the academic context or in the professional market.



The QB have to ensure that there is engagement of both the university and the industrial partners in the internal quality monitoring.

The internal quality control is organized in three levels:

- 1) The **first level** of the internal quality control of each WP output is responsibility of its authors.
 - It should be responsibility of the **WP leaders** to ensure that outputs are produced in accordance with the objectives and tasks, as for the project proposal and PA.
 - The WP Leader shall produce and send a report to the UNIBO (Leader of WP9 – Quality Assurance) within 15 days from achievement of the deliverable. A half yearly report will be also requested from the partners (Internal Interim Report, part 1).
 - UNIBO send the reports to the leader of WP 10 (WU) for the KPI attribution to every deliverable (see Deliverable KPIs). **Quarterly Evaluation Reports** will be available on the restricted area of the GrEnFin platform.



- 2) The second level corresponds to control activity and approval of the consortium. Periodically (every six months) the consortium is requested to produce a Quality Assurance Report about all the activities of the partnership (Internal Interim Report). The partners will review the process related to every output including their suggestions for improvements based on their personal experience and the Quarterly Evaluation Reports (covering the same 6 month of project life that will be published by the WU - WP 10 Leader – on grenfin.eu platform). The reviews of all the partners will be merged in the Quality Assurance Survey, which is the main document concerning the “evaluation in itinere”.
- 3) The third level of quality control is provided by the Quality Board. Based on the Quality Assurance Survey and the Key Performance Indicator provided by the Evaluation Reports, every six months the QB (restricted board) identifies the weak points of the project which can be adjusted during the project life and the RQB will produce a Semiannual Quality Report. Once a year the QB (plenary board) will produce a final evaluation to assess the efficiency and efficacy of the project. The Annual Quality Report will include the evaluation report of the external evaluator and will be the starting point for the planning of future activities. Both the Quality Reports (Semiannual and Annual) must be shared with the Consortium Partners within 30 days after the end of the period under control updating the platform grenfin.eu. The role of the external evaluator will be specifically addressed to provide feedback to the main results of the project, in particular the design of new curricula and the implementation of pilot experiments.

The Quality Board will also contribute to Conflict Management Process if required.

PROJECT PERFORMANCE INDICATORS

For each WP a number of project performance indicators have been identified and will be used to assess project performance concerning the achieved results compared to the planned ones. These indicators can be classified as qualitative or quantitative. The following table reports the list of foreseen indicators related to every short-term and long-term expected result.

Tab.8:

<u>Short term results</u>	<u>Target groups/potential beneficiaries</u>	<u>Quantitative indicators</u>	<u>Qualitative indicators</u>
Definition of learning outputs for each class (for Joint degree and professional module)	Students participating to the survey; Teachers/Staff of the partner HEIs; Professionals of partner L/SMEs; Professionals participating to surveys; Partner HEIs and L/SMEs, Non partner HEIs and L/SMEs	Questionnaires by gender, age, educational profile, job experience, and country of residence evaluated with the quantitative indicators specified in the quality plan as: 1.Number of surveys collected and analyzed 2.Number of university curricula analyzed 3.Number of university and L/SMEs of the database	1.Semi-structured surveys conducted on project's participants in the restricted meetings sessions 2.Level of satisfaction of the participant students and professionals 3.Suggestion included in the questionnaires and comments left in GrEnFln Hub V-Platform by the community
Definition of new educational methodologies to implement (for Joint degree and professional module)	Students participating to the brainstorming activities/test of methodologies; Teachers/Staff of the partner HEIs; Professionals of partner L/SMEs; Professionals participating to brainstorming activities/test of methodologies; Partner HEIs and L/SMEs; Non partner HEIs and L/SMEs	Questionnaires by gender, age, educational profile job experience, and country of residence evaluated with the quantitative indicators specified in quality plan as: 1.Number of community members who downloaded the training materials from the Hub 2.Number of students participating in the brainstorming events developed during the project	1.Semi-structured surveys conducted on project's participants in the restricted meetings sessions 2.Level of satisfaction of the participant students and professionals 3.Suggestion included in the questionnaires and comments left in GrEnFln Hub V-Platform by the community
Final draft of the basic structure of the learning outcomes (for Joint degree and professional module)	Students participating to the summer schools; Teachers/Staff of the partner HEIs;	Questionnaires by gender, age, educational profile and job experience, and country of residence evaluated	1.Organization of focus groups and Delphi rounds at the end of the two summer schools/Training involving the participants in



	<p>Professionals of partner L/SMEs; Professionals participating to the summer training; Partner HEIs and L/SMEs; Non partner HEIs and L/SMEs</p>	<p>with the quantitative indicators specified in quality plan as:</p> <ol style="list-style-type: none"> 1. Ratio of the number of students participating in and asking for participating in the testing experiments (summer schools/training) 2. Number of positive feedback collected from the students participating in the testing experiments (summer schools/training) 3. Ratio of the number of professionals participating in and asking for the implementation of the summer training experience 4. Number of positive feedback collected from the professionals participating in the summer training experiment <p>Questionnaires to be delivered at the beginning and at the end of the Summer schools/Training experience.</p>	<p>the restricted meetings sessions (from academia, practitioners, industry)</p> <ol style="list-style-type: none"> 2. Level of satisfaction of the participant students and professionals 3. Suggestion included in the questionnaires and comments left in our virtual platform by the community
<p>Test of the study plan of the Joint Degree and of the professional module</p>	<p>Students participating to the pilot class/full-immersion experience; Teachers/Staff of the partner HEIs; Professionals of partner L/SMEs; Professionals participating to the full-immersion experience; Partner HEIs and L/SMEs;</p>	<p>Questionnaires by gender, age, educational profile and job experience, and country of residence evaluated with the quantitative indicators specified in the quality plan as:</p> <ol style="list-style-type: none"> 1. Ratio of the number of students participating in and asking for participating in the pilot experiment 	<ol style="list-style-type: none"> 1. Organization of focus groups and Delphi rounds at the end of the two summer schools involving the participants in the restricted meetings sessions (from academia, practitioners, industry) 2. Delphi rounds 3. Suggestion included in the questionnaires and comments left in our



	Non partner HEIs and L/SMEs	<p>2.Number of positive feedback collected from the students participating in the pilot experiment</p> <p>3.Ratio of the number of students and professionals participating in and asking for the implementation of the full-immersion experience</p> <p>4.Number of positive feedback collected from the students/professionals participating in the full-immersion experiment.</p> <p>Questionnaires to be delivered at the beginning and at the end of the pilot classes/full-immersion experience.</p>	GrEnFIn-Hub VPlatform by the community
Final curriculum development and consortium agreement	<p>Students participating to the pilot class/full-immersion experience;</p> <p>Teachers/Staff of the partner HEIs,</p> <p>Professionals of partner L/SMEs;</p> <p>Professionals participating to the full-immersion experience;</p> <p>Partner HEIs and L/SMEs;</p> <p>Non partner HEIs and L/SMEs</p>	<p>Questionnaires by gender, age, educational profile and job experience, and country of residence evaluated with the quantitative indicators specified in quality plan as:</p> <p>1.Number of positive feedback collected from the students participating in the pilot experiment</p> <p>2. Number of positive feedback collected from the students/professionals participating in the full-immersion experiment.</p> <p>Questionnaires to be delivered at the end of the pilot classes/full-immersion experience.</p>	<p>1.Suggestion included in the questionnaires and comments left in the GrEnFIn-Hub VPlatform by the community</p> <p>2.Level of the community members satisfaction</p>
GrEnFIn-Hub VPlatform	Students participating to the pilot class/full-	1.Number of users that registered in the	1.Suggestion included in the questionnaires



	immersion experience; Teachers/Staff of the partner HEIs; Professionals of partner L/SMEs; Professionals participating to the full-immersion experience; Partner HEIs and L/SMEs; Non partner HEIs and L/SMEs; Community	GrEnFin-Hub VPlatform 2.Number of visitors of the GrEnFin Website/ Hub VPlatform 3.Number of pages visited 4.Number of resources uploaded to the GrEnFin-Hub VPlatform and downloaded from the GrEnFin-Hub VPlatform 5. Attendance's indicators that measure the impact in term of number of posts, comments, visualisations, media coverage, appearance in the search engines concerning a period of time.	2.Comments left in our virtual platform by the community 3.average time of the visits and its increase over the time 4.satisfaction on quality of the available resources
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Tab.9:

<u>Long term outcome</u>	<u>Target groups/potential beneficiaries</u>	<u>Quantitative indicators</u>	<u>Qualitative indicators</u>
GrEnFin Joint Master Degree and Professional Module	Students/Teachers/Staff of the partner HEIs; Students of the non partner HEIs; Professionals of partner L/SMEs; Professionals of non partner L/SMEs; partner HEIs and L/SMEs; Non partner HEIs and L/SMEs; Community	1.Indicator based on the research projects/academic publications involving any member of the consortium and/or our students on topics of interest for the programme, 2.Number of internships in the field of interest 3.Number of new industries reached (interested in the professional module and/or in entering into the consortium)	1.Suggestion included in the questionnaires and comments left in the GrEnFin-Hub VPlatform by the community 2.Average time of the visits in the GrEnFin-Hub VPlatform dedicated to the Joint Master Degree in Energy and Professional Module and its increase over the time 3.Satisfaction on quality of the dedicated and available resources



		<p>4. Attendance of students in extra-curricula activities</p> <p>5. Number of events involving our students and that are open to the public (in order to measure the students' ability to "give/contribute" to our country.</p> <p>6. Additional evaluation of the students' well-being (we will refer to the literature on this topic. See https://youngfoundation.org/publications/framework-of-outcomes-for-young-people/).</p> <p>7. Questionnaires to the target groups/potential stakeholders. Their answers will be evaluated with the quantitative indicators specified in quality plan. These indicator will give us an idea of how the educational programme is perceived. A comparison with the indicators based on the done activities, will be useful learn how to improve the public image of the course.</p>	
New educational methodologies	<p>Students/Teachers/Staff of the partner HEIs;</p> <p>Students of the non partner HEIs;</p> <p>Professionals of partner L/SMEs;</p> <p>Professionals of non partner L/SMEs;</p> <p>Partner HEIs and L/SMEs;</p>	<p>1. Questionnaires evaluated with the quantitative indicators specified in the quality plan.</p> <p>2. Number of university not included in the consortium that implement the proposed</p>	<p>1. Diffusion of the new methodologies in the educational sector (e.g. new classes developed in the curricula of the academic partners, number of practitioners willing to attend a full Master in green energy finance)</p>



	Non partner HEIs and L/SMEs; Community; EU economic system; World economic system	new methodologies after the project's lifetime.	2.Willingness to apply the new technologies in summer or winter schools by the project's partners (e.g. development of an ad-hoc EAEPE summer school)
New technologies for international education	Students/Teachers/Staff of the partner HEIs; Students of the non partner HEIs, Professionals of partner L/SMEs, Professionals of non partner L/SMEs; Partner HEIs and L/SMEs; Non partner HEIs and L/SMEs; Community; EU economic system; World economic system	1. The analysis of the budget of the universities of the consortium addressed to the introduction of those new educational methods will allow to define an indicator of impact. 2. Questionnaires for the target groups/potential beneficiaries: their answers will be evaluated with the quantitative indicators specified in the quality plan.	1.Diffusion of the new technologies in the educational sector among the project academic partners 2.Willingness to apply the new technologies in summer or winter schools by the project's partners (e.g. development of an ad-hoc EAEPE summer school)
Improved sectorial competence and specialization	Professionals of partner L/SMEs; Professionals of non partner L/SMEs; Partner L/SMEs; Non partner L/SMEs; Community; EU economic system; World economic system	1.Quantitative indicator recording the improvement of the placements of students coming from the projected joint master degree in energy	1.Increasing interest for participation in the joint master degree coming from students, practitioners from private and development finance institutions, and industries 2.Dissemination of the reputation of the projected master degree among international research institutes 3.Request for specialized classes, seminars and tutorials by industry and financial institutions.
Development of EU economy	Euro-Area; EU economic system; world economic system	1. Evaluation of indicators based on the international mobility of our students (the	1.Development of similar pilot projects in interconnected sectors (e.g. climate economics,

		<p>number of students moving to a foreign country after the master, and more precisely on the mobility from distressing countries to more advanced ones) on the occupancy's rate of our students (with a focus on the more distressing EU countries) and, finally, on the salaries 1-2-5 years after the master degree.</p> <p>2. Quantitative indicator recording the improvement of the placements of students coming from joint master degrees to be compared to the same indicator concerning the energy sector.</p> <p>3. Number of the downloads in the GrEnFin-Hub VPlatform, average time of visits, number of visits/downloads from countries not included in the consortium.</p>	<p>quantitative finance, sustainable development) and coming from partners external to the consortium (e.g. EAEPE members).</p> <p>2. Audition for the presentation of the results and potentiality of the project at the European Parliament</p> <p>3. Audition for the presentation of the results and potential impact of the project at DG Research and Innovation and DG Climate</p>
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The following table allows to have a focus to the quantitative indicators-KPI which are connected to the corresponding milestones. The information provided is hence complementary to the previous one and allow to have a global vision of the evaluation instruments which will be used along the life of the project.



Tab.10:

MILESTONES	BASIC PERFORMANCE INDICATOR
WP1 - PROJECT MANAGEMENT	
MS1.1 Organization of Project Meetings throughout the entire Project time lapse MS1.2 Definition and writing of a Project Management Framework MS1.3 Design and approval of a dedicated Partnership Agreement for each partner of the consortium considering rights and duties between the coordination unit and the single partner MS1.4 Completion of a periodic report to monitor the quality and the financial progress of GrEnFin Project and Consortium	PI 1.1 Frequency rate of the meeting. PI 1.2 Rate of overall satisfaction of the partners, Comments left by the partners concerning the organization. PI 1.3 Number of evaluation's questionnaires submitted. PI 1.4 Comments and suggestions coming from the consortium about the completeness of managerial documents. PI 1.5 Respect of the deadline declared into the project. PI 1.6 Number of the downloaded internal documents from the platform.
WP9 - QUALITY ASSURANCE	
MS9.1 Development of the project quality plan and quality assurance survey (M1-M36)	PI 9.1 Perception/Grade of satisfaction with the quality assurance process reported by the partners PI 9.2 Rate of satisfaction with the quality assurance process reported by the partners PI 9.3 Number and type of difficulties within the partner institutions and in the collaborative work among partners PI 9.4 Number of solved problems and strategies used for solving them and their results PI 9.5 Compliance with the project/quality assurance plan and respect of the deadlines PI 9.6 Number of criticalities emerged from the external report and possible solutions
WP10 - PROJECT EVALUATION	
MS10.1 Completion of the evaluation process through questionnaires (M32) MS10.2 Implementation of recommendations from partners and evaluation questionnaires (M36) MS10.3 External evaluation of the quality of the project (M12-M24-M36)	PI 10.1 Perception/Grade of satisfaction with the evaluation of the results reported by the partners PI 10.2 Rate of satisfaction with the evaluation of the results reported by the partners PI 10.3 Compliance with the project/evaluation plan and respect of the deadlines
WP 2 - STAKEHOLDERS CONSULTATION, VALIDATION ACTIVITIES AND SURVEY	
MS2.1 Design of a GrEnFin database (M3) MS2.2 Completion of report on needs and gaps of the main target groups, state-of-the-art in sustainable finance and energy market education and professional service-learning education. Definition of the consultation's document structure and submission (M6) MS2.3 Completion of the validation's activities and best practicing report on the joint work Academia-Industries to green reconversion (M21)	PI 2.1 Number of surveys collected and analyzed PI 2.2 Number of country covered by the survey PI 2.3 Distribution of organizations taking part in the survey by business activity and sectors PI 2.4 Response rate of contacted stakeholders
WP8 - BUSINESS-ACADEMIA NETWORK IN ENERGY FINANCE AND GRENFLN-HUB V-PLATFORM ESTABLISHMENT	
MS8.1 Development of the GrEnFin Website (M11) MS8.2 Development of the GrEnFin-Hub VPlatform: e-learning services, didactical materials, services/utilities for industries, lab services (M29)	PI 8.1. Number of users that registered in the GrEnFin-Hub VPlatform PI 8.2 Number of visitors of the GrEnFin Website/ Hub VPlatform PI 8.3 Number of pages visited PI 8.4 Number of resources uploaded to the GrEnFin-Hub VPlatform and downloaded from the GrEnFin-Hub VPlatform
WP11 - DISSEMINATION AND EXPLOITATION OF RESULTS	
MS11.1 Completion of the local and global exploitation plan of the project results (M36)	PI 11.1 Number of institutions exploiting the outputs developed in the GrEnFin PI 11.2 Number of dissemination materials developed PI 11.3 Number of dissemination activities conducted PI 11.4 Number of non-partner HEIs/L-SMEs showing interest in becoming part of the consortium PI 11.5 Number of non-partner L/SMEs collaborating with involved students during and (potentially) after the project PI 11.6 perception of the staff involved in the project about the impact of the project in the participating universities and in other HEIs PI 11.7 perception of the staff involved in the project about the impact of the project in the participating L/SMEs and in external enterprises
WP3 - DRAFT CURRICULUM DEVELOPMENT	
MS3.1 Test of learning outcomes concerning the academic path (M9-M21) MS3.2 Completion of the design of the academic educational path and community training materials (M24)	PI 3.1 Number of university curricula analysed (syllabi, learning outcomes, course objectives, assessment and evaluation) PI 3.2 Number of community members who downloaded the training materials from the Hub PI 3.3 Number of students participating in testing activities developed during the project (summer schools/workshops) PI 3.4 Number of positive feedback collected from the students participating in the summer schools



WP4 - PILOT CLASS OF THE STUDY PLAN	
MS4.1 Completion of the descriptive document of activation of modules and selection of the pilot class (M24)	PI 4.1. Number of attendees to the dissemination conference in London, Paris and Wien
MS4.2 Final report on the result of the piloting/full immersion experiences, criticalities and possible corrections (M32-M33)	PI 4.2 Ratio of the number of students participating in and asking for participating in the pilot experiment
	PI 4.3 Number of positive feedback collected from the students participating in the pilot experiment
	PI 4.4 Ratio of the number of students and professionals participating in and asking for the full-immersion experience
	PI 4.5 Number of positive feedback collected from the students/professionals participating in the full-immersion experiment
WP5 - FINAL CURRICULUM DEVELOPMENT	
MS5.1 Completion of the final academic curriculum (M36)	PI 5.1 Number of positive feedback collected from the students participating in the pilot experiment
	PI 5.2 Number of positive feedback collected from the students/professionals participating in the full-immersion experiment
WP6 - ANALYSIS AND DRAFT OF THE PROFESSIONAL MODULE	
MS6.1 Preliminary definition and test of the learning outcomes/methodologies concerning the professional module (M12-M21)	PI 6.1 Number of positive feedback collected from the stakeholders' consultations/Workshops concerning the projected learning outcomes/methodologies to implement in the professional module
MS6.2 Completion of the description of the facilities and services to implement in the GrEnFin-Hub VPlatform (M12)	PI 6.2 Number of positive feedback collected from the Stakeholders' consultations/Workshops concerning the utilities to provide in the GrEnFin-Hub VPlatform
WP7 - REVISION PATH AND FINAL PROFESSIONAL MODULE DESCRIPTION	
MS7.1 Completion of the final design of the professional module and community training materials (M29)	PI 7.1 Number of positive feedback collected from the professionals participating in the Summer Training
	PI 7.2 Ratio of the number of participants and the number of professionals asking for participating in the Summer Training

Partners' Reports deadlines and documents

Internal Interim and Financial reports

The Coordination Unit (University of Bologna) will monitor every 6 months project development and financial resources by collecting from each partner a financial report (including timesheets, contracts and foreseen documents according to General Rules, Financial and Contractual Rules of the Erasmus+ Knowledge Alliances programme) and an internal interim report which illustrates activities carried out and results achieved.

Thus, each Partner is required to submit to the Coordinator the following reports by the agreed deadlines (see table below):

- 4 PARTNER PROGRESS REPORTS:** The Partner shall provide these reports according to a format provided by the Coordinator together with the relevant supporting documents.
 Each Progress Report will include:
 - The Internal Interim Report (section 1, only for 1st IIR)
 - The Financial Report (complete in each of its parts. Annex IV, Annex V and supporting documents)
 These 4 Partner Progress Reports will be used by the Coordinator to prepare the Project INTERMEDIATE Report to be submitted to EACEA on behalf of the Project Consortium.
- PARTNER INTERMEDIATE REPORT:** The Partner shall provide this report (according to a format provided by the Coordinator at least **45 days** before the deadline) together with the relevant supporting documents. This Partner Intermediate Report will be the tool used by the Coordinator to prepare the Project INTERMEDIATE Report to submit to EACEA together with the request of **second pre-financing payment (40%)**, on behalf of the Project Consortium.
- PARTNER FINAL REPORT:** The Partner shall provide this report (according to a format provided by the Coordinator at least **45 days** before the deadline) together with the relevant supporting documents. This Partner Final Report will be the tool used by the Coordinator to prepare the Project FINAL Report to submit to EACEA together with the request of the **Balance payment (20%)**, on behalf of the Project Consortium.

As agreed through the bilateral Partnership Agreement signed by the Coordinator and each Partner of the Consortium, the Partner, without additional call, shall provide these documents within the deadline listed in the table below.

Tab.11:

REPORTS	REPORTING PERIOD	DEADLINE FOR "PARTNER'S REPORTS"
1 st PROGRESS REPORT	01/11/2019-30/04/2020	15/05/2020
2 nd PROGRESS REPORT	01/05/2020-31/10/2020	15/11/2020
INTERMEDIATE REPORT (REPORTING PERIOD 1)	01/11/2020-30/04/2021	15/05/2021

3 rd PROGRESS REPORT	01/05/2021-31/10/2021	15/11/2021
4 th PROGRESS REPORT	01/11/2021-30/04/2022	15/05/2022
FINAL REPORT (REPORTING PERIOD 2)	01/05/2022-31/10/2022	15/11/2022

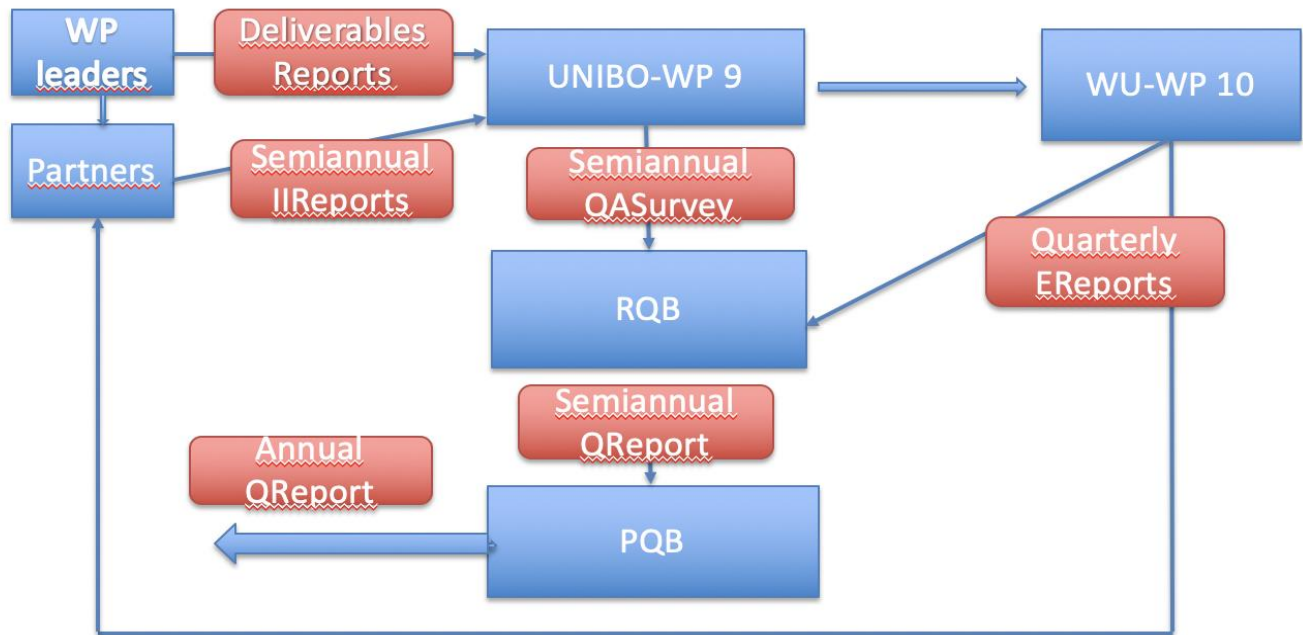
Quality Assurance Documents

As before mentioned, in order to assure the quality development of the project each Partner will be asked to respect the following deadlines sending the requested documents to the WP9 Leader (UNIBO):

- The WP Leader shall produce and send a report within 15 days from the achievement of each deliverable. (please see Annex II)
- Every six month each Partner will produce and send the Internal Interim Report (based on the quarterly evaluation report provided by the Evaluation WP Leader (WU). Please see the deadline in the previous table. Internal Interim Report section 1 and 2 will be send together.
- Every six month the restricted quality Board will produce the Semiannual Quality Report
Every year the Plenary Quality Board will Produce the Annual Quality report both of the documents will be available on platform grenfin.eu 30 day after the end of the examined period. See the table below and a graphical description:

Tab.12:

Typology	Deadline for grenfin.eu updating	Board in Charge
Semiannual Quality Report	30/05/2020	Restricted Quality Board
Annual Quality Report	30/11/2020	Plenary Quality Board
Semiannual Quality Report	30/05/2021	Restricted Quality Board
Annual Quality Report	30/11/2021	Plenary Quality Board
Semiannual Quality Report	30/05/2022	Restricted Quality Board
Annual Quality Report	30/11/2022	Plenary Quality Board





Annex

I Single document and amendment of the titles

Greening Energy Market and Finance



ALMA MATER STUDIORUM
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University
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