



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

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**WP9 – D9.2 - Report on the internal discussion to
elaborate the qualitative and the quantitative insights
coming from the external monitoring
Annual Quality Report (PQB)
Report 3, on the period M25-M36**





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Author	Antoine Mandel – External Evaluator
Revised and Approved by	Régis Gourdel (WU)

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Executive Summary

This third internal evaluation report updates the previous ones by integrating work performed in the third phase of the project. We provide an external assessment of the progress of the project in terms of (i) design and implementation, of the student’s programmes and of the professional module, (ii) dissemination of the project’s results (iii) development and implementation of cooperation arrangements, (iv) achievement of the milestones of the project. The conclusion provides further suggestions for the future implementation of the curricula designed during the project.





1. Progress in project design and implementation

1.1. Design and implementation of the student's programmes

In our previous report, we had been very appreciative of the innovative and interdisciplinary nature of the GrEnFin project as well as of the adequacy of its objectives with the needs of the labor market. We were however critical of the facts that (i) the three tracks were not well differentiated, (ii) the expected learning outcomes and the planned content of courses were too broad and technical, (iii) the preparatory courses seemed too focused on mathematical finance.

All these points were very successfully addressed in the design of the final draft of the master. Core courses now have a more interdisciplinary perspective while providing a very strong analytical training. This will allow students to gain a comprehensive understanding of contemporary challenges related to sustainability while acquiring the methods and skills to address these challenges in their chosen domain of specialization. In this respect, the three tracks are now much more clearly differentiated and are better articulated with the core courses. In particular, there is now a very clear complementarity between the climate and business track focusing more on policy aspects and the environmental finance track focusing more on operational aspects.

Overall, the master curriculum is extremely well suited to train the new generation of sustainability experts with a deep understanding of all aspects of sustainability, strong technical expertise and the ability to work in interdisciplinary teams.

1.2. Design and implementation of the professional module

In our previous report, we were putting forward to need to (i) exploit further synergies between the master and the professional module and (ii) to increase the depth and the technicality of the learning material of the professional module, which seemed too far away from that of the master. The structuration of the module in learning units fits well with the more application and goal-oriented nature of professionals. However, the content of these learning units, though more operational, is very well aligned with that of the master program. They offer both interdisciplinary foundations to address the different aspects of sustainability, and highly specialized material that will allow participants to reach high level of expertise. The third section of the module on “thinking complexity” allows to operationalize this knowledge in highly challenging case-studies. These learning units and case-studies could also be used very productively in the master program. A challenging aspect remains the large amount of online material in the professional module but this shall be overcome thanks to the goal-oriented nature of the program that makes the two first (online) sections key inputs for the third live section on thinking complexity.

Overall, the professional module offers the same advantages than the master program: training of sustainability experts with a deep understanding of all aspects of sustainability, strong technical expertise and the ability to work in interdisciplinary teams. Although lighter than the master program, the professional module also provides a very nice balance of conceptual and technical knowledge and skills.





1.3. Dissemination of the project's results

A very substantial effort has been made for the dissemination of the project's results. The website is fully functional and very well designed. Project's activities are presented in a very clear and appealing manner, notably the professional module. A wealth of communication activities have been carried out by the consortium: social media campaign, newsletters, communication in traditional medias, presentation at international conferences and professional meetings. It is also noteworthy that this dissemination effort has been pursued continuously and at high frequency during the project.

Dissemination towards potential stakeholders of the project has been carried out during the project activities (summer schools, summer training, immersive experiences) but also in follow up activities: evaluation, surveys...

2. Progress in cooperation arrangements

2.1. Arrangements for the master programme

The design of the master curriculum has been completed according to project objectives and all partners contributed efficiently to its design. The master has furthermore been accredited by the Italian ministry of education as International Second Cycle Degree. There are ongoing negotiations with LMU and Paris Dauphine to sign a Multiple Degree agreement within the end of 2022. Discussions are ongoing with other academic partners (notably UEK) to extend double-degrees agreements. The objective is to eventually accreditate the Master for the Erasmus Mundus programme.

It seems a very good result to have the master fully accredited by the end of the project as well as very advanced discussion for the signature of the double-degrees. Not all consortium partners are yet part of these agreements but this could be expected given the well-known administrative and regulatory constraints on international degrees.

Overall this is a very satisfactory outcome. There is also a very clear objective for the follow-up of the project: obtaining the accreditation for the Erasmus Mundus programme. It seems this objective also defines the agenda for the follow-up of the project: identify the partners that are willing and able to participate in the Erasmus Mundus consortium, design the institutional arrangements and define the milestones to reach this objective.



2.2. Cooperation for the future of the professional module

The design of the professional module has been completed according to project objectives. The final design combines efficiently the output of academic and industrial partners to define a program with an ambitious learning agenda clearly linked to economics and industrial objectives. A key challenge for the future of the professional module is to design institutional arrangements that allow to maintain and update these innovative learning formats.

Potential approaches to address this challenge involve (i) the creation of industrial-academic chair that combine research on sustainability with teaching and direction of studies for the professional module, (ii) long-term agreement between industrial and academic partners on the inclusion of the professional module into continuous education programs, (iii) definition of a business-model and of commercial agreements for the funding and the extension of the continuous education programme.

3. Evaluation of the milestones

Milestone	Description	Target month	Assessment
MS2.1	Design of a GrEnFin database	M3	The database has been delivered and is consistent with description.
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	Relevant stakeholders had been identified in the first reporting period. Substantial feedback has been collected during the summer school and via the consultation commission composed by the coordination unit of the KA Erasmus+ GrEnFin project and the Department of Statistical Sciences of the University of Bologna. The feedback from stakeholders has been integrated into the design of the curriculum, which seems very well aligned with existing demand the labor market and more broadly the needs of the energy transition.
MS3.1	Test of learning outcomes concerning the academic path	M9- M21	Learning outcomes have been thoroughly tested through (i) two summer schools, (ii) a green semester for the master program and (iii) a summer training for the professional module. Substantial feedback has been collected from participants and stakeholders and incorporated in the updated design of the programs.
MS3.2	Completion of the design of the academic educational	M24	The overarching design of the master program and of the professional module have been



	path and community training materials		completed. The design is very well aligned with the objective to train sustainable energy experts (SEE). There are still some imbalances between the different tracks of the master program, and between the master program and the professional module that are both supposed to train SEEs
MS5.1	Completion of the final academic curriculum	M36	The academic curriculum has been well defined and seems very well fitted to attract and to train the next generation of sustainability experts.
MS6.1	Preliminary definition and test of the learning outcomes/methodologies concerning the professional module	M12-M21	The professional module has been designed and tested during a summer training program. Feedback from participants appear extremely positive. However, the content of the professional module appears much lighter than that of the master program although both programs have the same objective to train sustainable energy experts.
MS6.2	Completion of the description of the facilities and services to implement in the GrEnFin-Hub VPlatform	M12	The description has been successfully completed
MS7.1	Completion of the final design of the professional module and community training materials	M29	The design of the professional module has been completed.
MS8.1	Development of the GrEnFin Website	M11	The website is online, functional and is of high quality with respect to higher education institutions standards.
MS8.2	Development of the GrEnFin-Hub VPlatform: e-learning services, didactic materials, services/utilities for industries, lab services	M29	The GrEnFin platform is online and fully functional.
MS9.1	Development of the project quality plan and quality assurance survey	M1-M36	The project quality plan and the quality assurance surveyed have been developed. They follow a robust methodology and are consistent with industry standards.
MS10.1	Completion of the evaluation process through questionnaires	M32	The evaluation of the process through questionnaires has been carried on systematically and efficiently throughout the project.
MS10.2	Implementation of recommendations from	M36	The feedback from stakeholders has been meaningfully included in the design of the





	partners and evaluation questionnaires		curriculum of the master program.
MS10.3	External evaluation of the quality of the project	M12- M24- M36	The external evaluation has been performed
MS11.1	Completion of the local and global exploitation plan of the project results	M36	The exploitation plan for the master program is clearly defined. The exploitation plan for the professional module is in progress.

4. Conclusion

During this third phase of the project, the project has been able to build on (i) the close collaboration between the academic and industrial partners of the consortium, (ii) the wide range of pilot activities organized, (iii) a well-organized dissemination strategy to turn its vision into concrete deliverables: the GrEnFln master is accredited and double-degree agreements are in the process of being signed, the professional module has found an enthusiastic audience and a coherent and innovative structure.

Both programs contribute to the objective of the GrEnFln project in a complementary way. By providing a very innovative mix of interdisciplinary and specialized knowledge on sustainability for the master program, and by embedding this mix in operationally and economically relevant case-studies for the professional module, these two programs are very well suited to train the new generation of sustainability experts with a deep understanding of all aspects of sustainability, strong technical expertise and ability to work in interdisciplinary teams.

Challenges for the follow-up of the project are clear. Obtaining the Erasmus Mundus accreditation as far as the master program is concerned. Finding the appropriate business-model and a sustainable strategy for the professional module.

