

ADRION 2014 -2020
Report on the implementation
of the Fifth Extraordinary call for proposal projects

April 2024
(version 1.0)

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Preface

The present document intends to provide an overview of the state of play of the programme funded projects, in the framework of the 5th extraordinary call for proposals.

The document is based on the data reported in eMS up to 18 April 2024.

1. Overview of project implementation

In the framework of the ADRION 2014 -2020 5th extraordinary call for proposals 5 project proposals were funded, respectively 2 projects in the framework of Specific Objective 1.1 dealing with the topics of blue economy and social innovation, and 3 projects in the framework of Specific Objective 2.2 dealing with the topic of renewable energies and circular economy. All the five granted projects finalized their activities in September 2023 and presented their reports on January/ February 2024.

1.1 Financial performance

The table below provides an overview of the **financial performance** of these projects, based on the main data downloaded from eMS up to 18 April 2024. The actual overall performance amounts to 87,2% of the total budget, but if you take into consideration also the amount not yet certified, the expected performance rate goes to 93,12% which is very good if we take also into consideration the short lifetime of these projects (only 9 months).

The performance of ERDF and IPA partners is similar, with a slight better performance of ERDF partners (93,28%) towards the IPA ones (92,6%). If we look at the performance at specific objective level, we can say that the SO 2.2 performance is higher than the SO 1.1 one.

ID and acronym	Total budget AF (A)	Out of which ERDF	Out of which IPAI	Total Budget Reported to JS (B)	Out of which ERDF	Out of which IPAI	Totl Budget Pending FLC (C)	Out of which ERDF	Out of which IPA	Perform in % (B+C/A)
1297 TESI	698.161,00	476.306,85	117.130,00	578.169,93	400.738,01	90.706,39	0,00	0,00	0,00	82,81%
1307 MARBLE	1.099.420,00	696.776,45	237.730,55	1.042.907,14	664.928,26	221.542,77	0,00	0,00	0,00	94,86%
Total Priority 1 (PA1)	1.797.581,00	1.173.083,30	354.860,55	1.621.077,07	1.065.666,27	312.249,16	0,00	0,00	0,00	90,18%
1313 AMOCEAB*	1.009.250,62	647.863,00	210.000,00	708.512,83	403.155,37	199.080,50	288.717,62	245.409,97	0,00	98,81%
1320 CRESCENTO	1.116.235,40	698.900,09	249.900,00	982.838,55	602.591,68	232.821,04	0,00	0,00	0,00	88,04%
1321 ADRIONTRAINEE	935.750,00	635.235,41	160.152,06	923.538,05	626.819,52	158.187,77	0,00	0,00	0,00	98,69%
Total Priority 2 (PA2)	3.061.236,02	1.981.998,50	620.052,06	2.614.889,43	1.632.566,57	590.089,31	288.717,62	245.409,97	0,00	94,85%
Total PA1+PA2	4.858.817,02	3.155.081,80	974.912,61	4.235.966,50	2.698.232,84	902.338,47	288.717,62	245.409,97	0,00	93,12%

*) Due to the fact that PP2 has reported costs exceeding its budget of ca. 1.222.42 Euro, that will be cut by JS, the absorption rate will be slightly reduced.

1.2 Output Indicators' performance

As far as the indicators are concerned, all the projects reported the achievements of all the envisaged indicators reported in the AF. All the projects are still under monitoring phase and for some of the indicators reported, integrations are required in order to comply with the programme output indicators requirements.

The tables below provide an overview of the reported indicators per each Specific Objective in which the projects have been funded. Specific details on each of the reported indicators can be found in the single data fiches reported in the section 2 of the present report.



Priority Axis 1: Innovative and Smart Region
S.O 1.1: Support the development of a regional Innovation system for the Adriatic-Ionian area

Programme Output indicators	Target values as indicated in AF of the approved 5 th call projects	Outputs delivered by the funded projects	Outputs delivered by the funded projects (in %)
<i>OI_1b.1_1 Number of supported transnational cooperation networks and clusters</i>	2	2	100%
<i>OI_1b.1_2 Number of strategies and action plans developed by transnational innovation networks and clusters</i>	3	3	100%



Priority Axis 2: Sustainable Region
S.O 2.2: Enhance the capacity in transnationally tackling environmental vulnerability, fragmentation, and the safeguarding of ecosystem services in the Adriatic-Ionian area

Programme Output indicators	Target values as indicated in AF of the approved 5 th call projects	Outputs delivered by the funded projects	Outputs delivered by the funded projects (in %)
<i>OI_1b.1_1 Number of supported transnational cooperation networks and clusters</i>	3	3	100%
<i>OI_1b.1_2 Number of strategies and action plans developed by transnational innovation networks and clusters</i>	5	5	100%

2. Project's performance and main achievements

2.1 1297 TESI project

2.1.1 Short overview of the main activities performed, and target groups involved

The project's main goal was to **raise competences and skills on social innovation**, with a focus on contemporary social challenges in public administration's governance, urban regeneration, social entrepreneurship, welfare, migration through the design of a Joint Master Programme (JM) on Social Innovation and the establishment of a network of universities, research centres and business entities.

The main activities performed by the project are the following:

In **WPT1**, the project focused on establishing a strong network of universities, research centres, and business entities to support a JM Programme in Social Innovation. This involved assessing existing educational offers in social innovation, exchanging best practices, and integrating these insights into a macro-regional report. Additionally, it developed and conducted online educational training and summer schools, which not only disseminated innovative educational tools but also evaluated and refined these methods through participants' feedback and comprehensive educational needs assessments.

TESI Summer School, held at the University of Belgrade from August 28 to September 2, 2023, featured a range of activities including lectures, workshops, and discussions led by experts from various institutions across Europe. Covered topics included urban regeneration, technological innovations in ageing societies, and the integration of migrants and refugees into labour markets. This program aimed to provide participants with insights into social innovation practices and to enhance their understanding through interactive sessions and collaborative problem-solving activities.

The project organised **6 online webinars attended by 320 people** as part of the online **training courses focused on enhancing skills in social innovation**. The series included diverse topics such as the role of cultural mediators in migration contexts, child-centered approaches in education, support for social entrepreneurship, urban regeneration, the use of data and analytical tools, and strengthening civil society through participatory design. Each session was designed to integrate theoretical knowledge with practical applications and facilitated by experts from various fields of social innovation. The webinars received positive feedback from participants, highlighting their relevance in addressing relevant issues in social innovation.

In **WPT2**, the project worked on drafting of the JM Programme on social innovation. 5 meetings were organised for the definition of the Programme. 3 took place during study visits to Zagreb (27-29 March 2023), Athens (10-12 May 2023) and Tirana (26-28 June 2023); 2 took place online in the form of writing sessions.). All the emerged elements during the meetings were collected in the Action Plan that was presented and discussed during the final event organised by IUAV in Venice (13-15 September 2023). The Action Plan clearly outlines what has been decided in terms of: definition of the topics addressed in the Programme, the lecturers - curricula - and the training methods; didactic organisation of the activities and calendar; definition of the workshops, workshops and Best Practice presentation to be offered to the students in collaboration with the business partners; venues and facilities, mobility of students and academics facilities, student and academic staff mobility, internships, structure and characteristics of the final thesis. The programme was signed by all partners. The partnership also worked on JM administrative procedures (accreditation, student admission requirements, programme administration and management, resources and financing), that was attached to the Action Plan.

The **partnership** is composed by 6 Universities and 1 research centre from 6 Adrion Countries (Italy, Croatia, Greece, Albania, Serbia and Slovenia), with the support of the UNIADRION Network and other 4 associated partners from Italy, Slovenia, Albania and Bosnia and Herzegovina, that cooperated together in project's activities to favour the development, promotion and implementation of the JM.

The project involved various **target groups** at various degrees. Higher education and research institutions, and interest groups such as NGOs were actively involved. These groups participated in summer schools, signed

cooperation agreements, and attended webinars. Other categories like education/training centres and schools, and international organizations operating under international law, show less interest than foreseen.

2.1.2 Financial progress and absorption rate

The table below provides an overview of the financial progress and absorption rate of the project. Considering the short implementation period, the absorption rate can be deemed satisfactory, with a lower performance of the two IPA partners. The project did not identify any particular implementation problem and declared the completion of all activities.

1297 TESI	Project budget (AF)	Project reports amounts submitted to JS	Actual absorption rate	Pending FLC expenditures	Expected absorption rate
Total budget	698.161,00	578.169,93	82,81%	-	82,81%
Out of which ERDF	476.306,85	400.738,01	84,13%	-	84,13%
Out of which IPA II	117.130,00	90.706,39	77,44%	-	77,44%

2.1.3 Project main output achievements

The project reported the achievement of all the project outputs foreseen in the AF. The table below provides an overview in this regard:

Project acronym/ Programme Output Indicators	Project main output title as foreseen in AF	Output target value as foreseen in the AF (A)	Output target reported value (B)	Output achievement in % (B/A)
1297 TESI				
OI_1b.1_1 Number of supported transnational cooperation networks and clusters	O.T1.1 Innovative Transnational Network*	1	1	100%
OI_1b.1_2 Number of strategies and action plans developed by transnational innovation networks and clusters	O.T2.1 Strategy for the development of a Joint Master* O.T2.2 Action Plan*	2	2	100%

*Some integrations are required in relation to the delivered outputs

The project has designed a **Joint Master (JM) in Social Innovation**, a programme that is actually missing in the surveyed educational programmes currently offered in the Adriatic-Ionian (A-I) region. The JM aims to train “Social Innovators” capable of designing, implementing, promoting and evaluating innovative solutions and tools to respond to the contemporary challenges faced by public administrations and social organisations in the A-I area. It intends to strengthen the network of practitioners working in this field to support the social development of the whole region. Based on the assessment of existing educational offer and gaps the project partnership designed a JM that addresses critical and unmet challenges in key areas. The Joint Master focuses on five macro-topics: migration, aging society, social economy, urban and rural regeneration; education and youth empowerment.

The **JM structure includes 10 teaching modules** held at the University of Bologna, and a mobility period at another partner university, where the student can attend lectures and participate in additional labs and study visits to local innovative social enterprises and complete an internship/project work. In this way, the **JM provides both theoretical knowledge and hands-on experiences.**

The JM Master has an overall **duration of 15 months**, structured into teaching, mobility, and thesis writing phases. The programme includes 500 hours of internship/project work with a business partner or research institute within the network created by the project TESI.

The JM programme is inspired by the service-learning approach, i.e. the combination of academic instruction with community service, meant to promote civic engagement and cooperation. Moreover, the JM operationalizes the study-and-work principle, by offering all prospective students the possibility to carry out internships and project works during their mobility in a partner country, with ECTS recognition. The JM is the first of its kind in the ADRION Programme area and is designed to tackle common challenges across the whole region.

A second-level professional Joint master's degree is foreseen to be awarded. The programme is **expected to be jointly accredited by multiple universities (University of Bologna, University of Belgrade, and University of Tirana), making it recognized as a joint degree across these institutions.** The programme aims to start in **October 2024**, with student enrolment beginning in the summer of 2024. The accreditation procedures are **expected to be completed by spring of 2024.**

Three universities - **Alma Mater Studiorum-University of Bologna (Italy), University of Tirana (Albania), and University of Belgrade-Faculty of Philosophy (Serbia)** - will **accredit the program** according to the following **timeline:**

1. Alma Mater Studiorum - University of Bologna (Italy):
 - Internal procedures will start during the first week of March 2024, with the submission of the JM proposal for approval to the University's bodies.
 - Approval of the proposal is expected by June 2024.
2. University of Tirana (Albania):
 - Internal procedures will start in March 2024, with the submission of the JM proposal for approval to the University's bodies.
 - External accreditation and quality assurance process will start in May 2024. - Both the internal process of accreditation and external quality assurance procedure will be finished by October 2024.
3. University of Belgrade (Serbia):
 - Internal procedures started in October 2023, with the submission of the JM proposal for approval to the University's bodies.
 - External accreditation and quality assurance process will start in March 2024.
 - Both the internal process of accreditation and external quality assurance procedure will be finished by July 2024.

The consortium aims to **complete accreditation procedures by late Spring 2024**, followed by a **call for student enrolment in Summer 2024**, with the program **officially starting in October 2024**. For the start of the programme, it will be sufficient the accreditation in Italy performed by Alma Mater Studiorum - University of Bologna.

2.1.4 State of the art of the monitoring process

Monitoring of the Progress Report 1.1. is still ongoing.

2.2 1307 MARBLE project

2.2.1 Short overview of the main activities performed, and target groups involved

The project's main goal was **raising competences and skills in maritime robotics application in the domain of blue economy** through **a) the preparation of an innovative joint master programme "MARBLE – Maritime Robotics in Blue Economy"** and **b) implementation of joint trainings** organized by the *MARBLE Network* of universities, research organizations, business clusters, and a digital innovation hub.

The main activities performed by the project are the following:

WPT1: **a) the establishment of the MARBLE Network** of academic and business partners working together on maritime robotics skills enhancement and capacity building in blue economy; **b) the organisation of MARBLE training courses followed by a hackathon** focusing on blue economy problem-solving; **c) exchange of experience and knowledge for the definition of MARBLE joint Master and curricula** by organising methodology seminars, best practice and staff exchanges.

MARBLE Maritime Robotics in Blue Economy Training Course held in May 19-23 in Trieste (IT) organized as one-week "showcase" of the MARBLE Joint Master programme saw the involvement of 128 students from all partner universities.

The training course has been then followed by a **hackathon focusing on blue economy problem solving**. The hackathon started in May-19 and lasted until September 2023 focused on solving depletion/and restoration of European flat oyster (*Ostrea edulis*) in the Mediterranean Sea (as well as in Europe). The focus, hence, is on application of machine learning for processing images gathered from a microscope, and on control sampling strategy and exchange messages between vertical profiling sensor nodes.

WPT2: **a) the definition of the MARBLE Strategy and Action Plan** for the joint master's programme; **b) the establishment of the joint Master's curriculum**, administrative processes, the university path & mobility scheme; **c) the preparation and submission** of documentation required for the accreditation of the MARBLE joint master's Programme.

The partnership is composed by 8 partners, 5 universities, one research institution, one business cluster and one digital innovation hub. The consortium led by the **UNIZG-FER (HR)**, the strongest maritime robotics laboratory in the Adriatic-Ionian region, includes the **University of Trieste (IT)** having in place a Master in Sustainable Blue Growth with **OGS (IT)** experienced in blue economy topics; **NTUA (GR)** having a very strong robotics and control laboratory; the **University of Montenegro (MNE)** experienced in acoustic networks; and the **University of Sarajevo (BiH)** with expertise in control systems. **AFC (HR)** and **mareFVG (IT)** with their networks allowed the project consortium to reach out to a wide pool of internship providers (their members and others) and made sure the project-based learning is relevant to industry needs.

Target groups reached include higher education and research organisations (300 persons), local-regional public authorities (20 persons), enterprises (excluding SMEs) (25 persons), and SMEs (25 persons).

2.2.2 Financial progress and absorption rate

The table below provides an overall of the financial progress and absorption rate of the project. The absorption rate can be deemed very good. The performance of ERDF partners is slightly higher than IPA ones. The project did not identify any particular implementation problem and declared the completion of all activities.

1307 MARBLE	Project budget (AF)	Project reports amounts submitted to JS	Actual absorption rate	Pending FLC expenditures	Expected absorption rate
Total budget	1.099.420,00	1.042.907,14	94,86%	0,00	94,86%
<i>Out of which ERDF</i>	696.776,45	664.928,26	95,43%	0,00	95,43%
<i>Out of which IPA II</i>	237.730,55	221.542,77	93,20%	0,00	93,20%

2.2.3 Project main output achievements

The project reported the achievement of all the project outputs foreseen in the AF. The table below provides an overview in this regard:

Project acronym/ Programme Output Indicators	Project main output title as foreseen in AF	Output target value as foreseen in the AF (A)	Output target reported value (B)	Output achievement in % (B/A)
1307 MARBLE				
OI_1b.1_1 Number of supported transnational cooperation networks and clusters	O.T1.1 MARBLE network	1	1	100%
OI_1b.1_2 Number of strategies and action plans developed by transnational innovation networks and clusters	O.T2.1 MARBLE strategy and action plan	1	1	100%

The MARBLE Network is formalised through a Memorandum of Understanding linking the universities, companies and research institutions involved in the project. This shall ensure a long-lasting partnership and be a springboard for the implementation of the joint master's programme.

The network involves the following members:

- University of Trieste (IT)
- Maritime Technology Cluster FVG (mareFVG) (IT)
- National Institute of Oceanography and Applied Geophysics (OGS) (IT)
- National Technical University of Athens (NTUA) (GR)
- University of Sarajevo, Faculty of Electrical Engineering (UNISA) (BiH)
- University of Montenegro (MNE)
- Digital innovation Hub Agrifood Croatia (AFC) (HR)
- University of Zagreb Faculty of Electrical Engineering and Computing (UNIZAG) (HR)

The **MARBLE Strategy and Action Plan** elaborated by the project has been signed by all partners to institutionalise their commitment towards the implementation of the joint master's programme and ensure its durability over the long-term.

The Strategy defines the following **four key objectives of the Master programme**:

- S.Obj.1) Providing students with cutting-edge knowledge and skills in maritime robotics for sustainable blue economy.
- S. Obj. 2) Matching the training offer to the market needs.
- S. Obj. 3) Training a new generation of professionals and researchers able to develop future intelligent robots for a real-world application.
- S. Obj. 4) Creating strong network of industry, research, academia and students.

The **Joint Master programme** elaborated by the project foresees a **joint curriculum with a modular structure, spread over two years / four semesters** according to the following:

1st semester – UNITS Trieste; 2nd semester – NTUA Athens; 3rd semester – UNIZAG Zagreb; 4th semester – internships and thesis UNIZAG Zagreb.

Joint Master MARBLE shall have a total of **120 ETC**, including **11 mandatory and 7 elective courses**:

- 1) 1st Semester: Trieste – Blue Economy & Machine Learning and Evolutionary robotics-data driven and database control course.
- 2) 2nd Semester: Athens – Robotics and Mechatronics and 2 elective courses (Advanced Machine Learning for Robotics or Intelligent Control Systems and Robotics).
- 3) 3rd Semester: Zagreb – Marine Robotics, Aerial Robotics and Blue Economy technology and marine robotics, and Blue Economy and Indicators of sustainable development; plus, one of the four courses of choice (Deep learning, multi-robot system, Human-Robot Interaction, Autonomous Mobile Robots).
- 4) 4th Semester: internships and thesis preparation.

The **internship is mandatory** and is foreseen to be performed at the premises of companies or targeted actors linked to blue robotics application.

The Master degree shall be awarded by the universities which will accredit the joint master programme. A **Joint Master diploma and joint diploma supplement** will be issued upon completion of the joint degree programme. In addition to the above, the MARBLE Network shall issue a MARBLE certificate to each graduate upon completing the joint degree program of the Network.

The **accreditation process has already started** and the modalities to proceed in each country have been already identified.

The **accreditation of the Master programme will be carried out in Greece by the Hellenic Authority for Higher Education (HAHE)** and will be accepted by the Croatian Agency for Science and Higher Education (ASHE)), in Italy by the Italian National Agency for the Evaluation of the University and Research Systems (ANVUR) and in Montenegro by the Agency for Control and Quality Assurance of Higher Education (ACQAHE).

The accreditation documents submitted for approval in Greece, Italy and Montenegro have been already attached to the Project Report.

The UNISI (BiH) will accept the accreditations by other institutions. The University of Sarajevo does not need accreditation in the initial phase of launching the study programme. The study programme will be approved by the University Senate.

In the project report has been also included the **support services for students** (*Deliverable 2.3.1 Administrative Processes*) in each institution conducting the Joint Master. These services consist in assisting students in acquiring visas, finding accommodation and other administrative issues during student's stay.

MARBLE Joint Master's Programme also contains the admission requirements for students applying for the programme, the selection procedure and enrolment criteria and procedure.

It also contains the principles for awarding the master's degree, the agreed language policy and the mechanisms for the recognition of study periods within the partnership. English language proficiency is required from students as minimum eligibility criteria.

The strategy foresees a **5-year duration as long-term goal**.

The **short-term goal** for implementing the Action plan and the **implementation of the Master programme is the academic year 2024-2025**.

2.2.4 State of the art of the monitoring process

Monitoring of the Progress Report 1.1. is still ongoing.

2.3 1313 AMOCEAB project

2.3.1 Short overview of the main activities performed, and target groups involved

The project's main goal is to **raise competences in the fields of Circular Economy and BioEconomy** fostering the thematic interlinks, through the establishment of a Transnational Network involving research institutions and business support centres within the ADRION Area, and the development of a master's degree Programme.

The main activities performed by the project are the following:

WPT1 - The activities of the project focused on laying-down the foundations of the new network, establishing the basis for collaboration and network formation. The project team signed a Memorandum of Understanding to formalize the Network where the overall goal of the network, the network governance, the network membership and duration, and the conditions and strategy to widen the network were clearly stated.

In the framework of the WPT1, the project also organized the **Spring School** and **Boot Camp** from June 5th to 9th, 2023, at the Faculty of Economics, Università Politecnica delle Marche, Ancona, with the aim to define the content of the master's degree and the administrative rules for its implementation.

WPT2 – The activities of the project were concentrated on the development of the educational and operational framework of the program, the development of a Joint Transnational Strategy and Action Plan for the Master Degree in Circular Economy and Bioeconomy. The project worked on the definition of the key components of the Master Program such as the curriculum; credit systems, administrative details; procedures to be adopted for the mutual recognition of the master's degree and the credits accumulated by students; criteria for selecting and admitting students; procedures for the student mobility between the different partners universities. In the master program were also indicated the learning objectives, professional opportunities, and info on costs, internship and thesis.

The project **partnership** is composed by 8 universities and 2 business supporting organisation from 7 different countries of the Adriatic Ionian Area. Each partner contributed to the development of the program's structure and content, bringing insights from their respective fields and regions. They engaged in various activities, including roundtable discussions, stakeholder engagement meetings, and workshops such as Winter School and Boot Camps.

The project reached out **multiple target groups**, including local and regional public authorities, higher education and research institutions, business support organizations, SMEs, and the general public.

2.3.2 Financial progress and absorption rate

The table below provides an overview of the financial progress and absorption rate of the project. Report 1.1 of the LP (IT) is not yet verified. Total amount declared is €288.717,62, therefore the expected absorption rate after FLC verification will be increased from 70,2% to 98,81%. The expected absorption rate can be deemed very good. The performance of ERDF partners is higher than the IPA ones.

1313 AMOCEAB	Project budget (AF)	Project reports amounts submitted to JS	Actual absorption rate	Pending FLC expenditures	Expected absorption rate
Total budget	1.009.250,62	708.512,83	70,2%	288.717,62	98,81%
Out of which ERDF	647.863,00	403.155,37	62,2%	245.409,97	100,1%*
Out of which IPA II	210.000,00	199.080,50	94,8%	0,00	94,8%

* PP2 has exceeded the partner budget; therefore, JS will apply a budget cut of 1.222,42 EUR. Such budget cut will slightly reduce the project performance to 98,7%.

2.3.3 Project main output achievements

The project reported the achievement of all the project outputs foreseen in the AF. The table below provides an overview in this regard:

Project acronym/ Programme Output Indicators	Project main output title as foreseen in AF	Output target value as foreseen in the AF (A)	Output target reported value (B)	Output achievement in % (B/A)
1313 AMOCEAB				
OI_6d.1_1 Number of supported transnational cooperation networks	O.T1.1 AMOCEAB – Transnational Network	1	1	100%
OI_6d.1_2 Number of strategies and action plans developed in the field of environmental protection	O.T2.1 AMOCEAB Network Strategy and Action plan to foster Circular and Bioeconomy key principles, with AMOCEAB*	2	2	100%

* Some integrations are required in relation to the delivered output

AMOCEAB Transnational Network is established for the design and promotion of a master’s degree in Circular Economy and Bioeconomy. The Network is composed by research institutions and business support centres within the Adriatic ,Ionian Area. The added value of such cooperation relies on the competencies of the involved universities in training students on the topic of circular economy and bioeconomy. A **network strategy and an Action plan** were elaborated during AMOCEAB project **for the implementation of a master’s degree Programme on Circular Economy and Bioeconomy**.

The **master’s program focuses on circular and bioeconomy**. It encompasses specialized courses focusing on sustainable processes and technologies, the impact of technological processes on the environment, and comprehensive training in green chemistry, sustainable resource management, and biotechnology applications.

AMOCEAB project through the master programme meets the need to create new professional figures specialized in Circular and Bio-Economy that will act as ‘change agents’ by public and private entities, in the ADRION area, in the near future.

The program spans **two academic years totalling 120 ECTS** with a **mandatory mobility scheme for students to attend different partner universities each semester**. The students will be awarded with an **Italian Diploma of “Master Universitario di Primo Livello”** that will be issued by the Università Politecnica delle Marche. In addition, each Degree Awarding Full Partner University where students attended part of their study path can issue an additional diploma in compliance with national legislations.

Two programs (“Engineering program” and “Business program”) will be proposed. The period abroad can be accomplished by students during the third semester and/or during the internship/thesis period. The final thesis discussion will be held at the University that will issue the Degree.

The partnership has signed a Consortium Agreement outlining the roles, responsibilities, and joint procedures for the master’s program. The partnership provides **support services for students**, which include **visa assistance, accommodation, language courses, and administrative support**.

The **master will have also a practical application**, in order to place on the market new specialized figures, who can support public and private bodies in technical, economic and environmental sustainability management.

The accreditation process for the Joint Master’s Degree in Circular Economy and Bioeconomy involves several stages to ensure compliance with national and international educational standards. Initially, a 2-year 2nd-level degree postgraduate specialization course will be established in Italy, overcoming thus the length accreditation process typical for new degrees in the country. This course will serve as a precursor to a fully-fledged 2-year joint Second Cycle degree program, which will be established after the initial two years, allowing for evaluation and optimization based on student attraction and satisfaction.

2.3.4 State of the art of the monitoring process

Monitoring of the Progress Report 1.1. is still ongoing.

2.4 1320 CRESCENTO project

2.4.1 Short overview of the main activities performed, and target groups involved

The project’s main goal is **to raise competences and skills** addressing both short and long-term **sustainability challenges**, through the establishment of a transnational cooperation network supporting a joint education initiative - the **CRESCENTO Joint Master’s Programme on Circular Economy and Sustainable Development**.

The main activities successfully performed by the project are the following:

In **WPT1** the activities have been concentrated in the Establishment of the **ADRION Transnational Cooperation Network** that brought together over 300 stakeholders, facilitating knowledge exchange and collaborative action towards a circular economy. The network has strongly supported the promotion of cross-border cooperation in the selected thematic domain.

Another activity performed by the project is the identification of **good practices of Master programs on Circular Economy** in the Adriatic Ionian region and beyond. Bearing in mind that the number of active joint master's programs in the field of circular economy is limited, the good practices collection pertains to both programs implemented by one university (single) and to dual master's programs. A total of 57 master's programs were collected and elaborated, in the implementation of which 84 institutions from 25 countries were involved.

The project successfully implemented **8 Summer Schools** across various partner regions, which were organized by LP Politecnico Milano (IT), PP2 University of Zagreb (HR), PP3 University of Kragujevac (RS), PP4 National Confederation of the Craftmanship and Small and Medium Enterprises (IT), PP5 Aleksandër Moisiu University of Durrës (AL), PP7 University of East Sarajevo (BiH), PP8 University of Montenegro (ME); PP10 Aegean University (GR) - focusing on practical and innovative applications of circular economy principles. The expected summer school to be organized in Slovenia by PP6 University of Nova Gorica (SI) has not been realized due to delays and difficulties faced by such partner in the overall participation to project activities. With the intent of replacing it, the two Italian project partners (POLIMI and CNA) decided to double the effort delivering thus two summer schools in Italy. The training programs have been tailored to reflect the specific environmental, economic, and social contexts of the respective regions. The summer schools brought

together a diverse mix of students, professionals, and academics. The collective impact was significant, not only in educating participants about circular economy principles but also in stimulating innovative ideas and solutions tailored to various sectors.

In **WPT2** - the activities have been concentrated in **Curriculum Development and Didactic Contribution**: various academic institutions across the Adriatic-Ionian region contributed to the development of the **curriculum of an innovative Joint Master's Degree Programme on Circular Economy and Sustainable Development**, ensuring a comprehensive and regionally relevant educational offer. All the different regulations from all participating countries were analysed to set a share basis for setting up a joint master's curriculum (ref to D.T2.1.1 Report on the Study and Analysis of regulations in partner countries). The identified programme, offered by the University of the Aegean and the University of Zagreb with the involvement of other academic and industrial partners contributing to the curriculum, contributes to the enhancement of educational quality and expertise in the region, with a focus on sustainable practices. This strategy leads to a strengthened capacity in higher education institutions in the area, contributing to the project's result related to educational excellence and regional development. A **Joint Master's Cooperation Agreement** among involved universities and institutions has also been defined. A detailed Joint Master's Program description along with a **Joint Master's Student Handbook** and **Joint Master's Elaboration Action Plan** provide all necessary information pertaining to the identified Joint Master's Degree Programme on Circular Economy and Sustainable Development.

The project **partnership** is composed by **11 partners** covering the entire programme area . All partners actively contributed to the implementation of all the planned project activities within the given project duration; in particular each partner provided valuable inputs in the identification of good practices of Master programs on Circular Economy at the national level, as well as to the study and analysis of regulations in the related partner countries. PP6 University of Nova Gorica faced some delay and difficulties in taking part to all expected project activities, specifically it could not manage to implement the planned summer school in Slovenia. In order to respect the target value planned for the summer school, the Italian PP4 CNA Abruzzo has been involved in the organization of an additional summer school on Italian territory.

The project involved various **target groups**. Local, regional and national public authorities were actively and largely involved, *whereas Higher education and research institutions* have been involved less than expected. The achievement of the declared target groups declared is attested by the project registration of such institutions to the ADRION Transnational Cooperation Network on Circular Economy. In addition to the originally planned target groups, described above, the project has a positive impact also on students and young professionals, industry and businesses and local communities and civil society.

2.4.2 Financial progress and absorption rate

The table below provides an overview of the financial progress and absorption rate of the project. The absorption rate can be deemed satisfactory. The performance of IPA partners is higher than the ERDF ones. All project partners declared their costs, certified by the controllers. On the spot verification for LP is missing. PP4 controller should carry out again the OTS as it was performed before the partner reported its cost. These elements hamper the final approval of the report from the financial point of view.

1320 CRESCENTO	Project budget (AF)	Project reports amounts submitted to JS	Actual absorption rate	Pending FLC expenditures	Expected absorption rate
Total budget	1.116.235,40	982.838,49	88,04%	0,00	88,04%
<i>Out of which ERDF</i>	698.900,09	602.591,68	86,22%	0,00	86,22%
<i>Out of which IPA II</i>	249.900,00	232.821,04	93,16%	0,00	93,16%

2.4.3 Project main output achievements

The project reported the achievement of all the project outputs foreseen in the AF. The table below provides an overview in this regard:

Project acronym/ Programme Output Indicators	Project main output title as foreseen in AF	Output target value as foreseen in the AF (A)	Output target reported value (B)	Output achievement in % (B/A)
1320 CRESCENTO				
OI_6d.1_1 Number of supported transnational cooperation networks and clusters	O.T1.1.1 ADRION Transnational Cooperation Network on Circular Economy*	1	1	100%
OI_6d.1_2 Number of strategies and action plans developed by transnational innovation networks and clusters	O.T2.1.1 Strategy for the implementation of a Joint Master's Programme on Circular Economy*	1	2	100%
	O.T2.2.1 Action Plan for the implementation of a Joint Master's Programme on Circular Economy*	1		

*Some integrations are requested in relation to the delivered project outputs.

CRESCENTO Joint Master's Programme on Circular Economy and Sustainable Development

will foster excellence in the domain of Circular Economy and will ensure quality graduate education exposing students to different academic environments of participating Universities, offering paths for specialization, advocating professional and intellectual development for students in a scholarly, trans disciplinary and inclusive environment, while overall improving quality of life in the region and beyond.

The adopted structure of the CRESCENTO Joint Master's Programme on Circular Economy and Sustainable Development **involves multiple academic-academic and academic-business mobilities**, according to the following:

- First year at the University of the Aegean as entry university (Greece),
- Second year at the University of Zagreb as exit university (Croatia),
- Elective summer schools offered by CRESCENTO partners and mandatory internships organized in collaboration with institutions from business and research sectors.

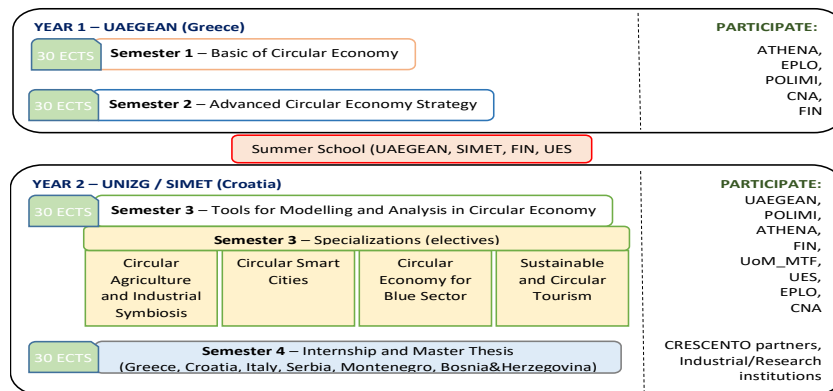
The proposed degree possesses thus the potential of attracting the interest of post graduate studies in Circular Economy and Sustainable Development in the Adriatic Ionian area and become a sustainable Joint Master's in the long term.

The cooperation agreement for the implementation of the Master Programme has been prepared and available in the project report 1.1.

The first year provides a technical common base and fundamental courses. The second year includes some specialised mandatory and more specialised elective courses (grouped in four specialisations) aiming to raise competences and skills in domains considered of strategic relevance for the Adriatic-Ionian programme area:

- a) Circular Agriculture and Industrial Symbiosis,
- b) Circular Smart Cities,
- c) Circular Economy for Blue Sector, and
- d) Sustainable and Circular Tourism.

The figure below provides an overview of the organizational structure of the Master programme:



During the first semester, students are introduced to the basics of the circular economy for the acquisition of key competencies and the possibility of transitioning to advanced approaches in the circular economy during the second semester.

After the first year of study, students can choose one of the offered Summer Schools by CRESCENTO partners, which is a prerequisite for obtaining the MSc degree and the chosen specializations in the following semesters. The summer school program will be a mixture of traditional lectures by experts, practical workshops, and team development of CE projects with mentorship. In this way, students will learn the practical implications of the CE concept and the possibility of solving social problems for sustainable development. It will be an opportunity for them to decide on one of the specializations before enrolling in the third semester.

In the second and third semester, students will study three mandatory courses on modelling and analysis tools that they can use in advanced applications of the circular economy in the various areas it covers. After that, the entire pool of students will be directed according to their own wishes to the most optional specializations listed above and shown on the scheme.

The fourth semester is intended for Internship and the preparation of a master's thesis, which can be offered not only by the Entry and Exit University, but also in cooperation with other partners, which means that this semester will be spent in another partner country. It is also planned to involve business partners and research institutions in the implementation of the internship, so that the student will acquire practical knowledge and skills, especially research important for further professional development. For this purpose, additional Collaborative agreements and Memoranda of Understanding will be signed among partners and external institutions.

CRESCENTO Joint Master's Programme on Circular Economy and Sustainable Development is a 2-year Master of Science programme jointly offered by the University of the Aegean (Greece), as entry university, the University of Zagreb (Croatia) as exit university and contributing partners from CRESCENTO consortium.

CRESCENTO Joint Master's Programme on Circular economy foresees a total of **120 ECTS** accredited distributed according to the following scheme:

- at least 60 ECTS during their first year at the Entry University by successfully completing the mandatory courses;
- at least 30 ECTS during their third semester at the Exit University;
- 15 ECTS associated with the successful completion of an internship;
- 15 ECTS associated with the successful defence of their Master Thesis.

Finally, the **attendance and successful completion at least of one** of the designated **Summer Schools** is **mandatory** for student to earn the **degree of MSc**.

After the first year at the Entry University and upon completion of the 80% of the curricular requirements of the first year (48 ECTS), students are allowed to move to the Exit University for the second year to complete their studies.

Internship is mandatory and will be provided by project contributing partners and committed Industry/Research Institutions. Student internships is an essential cornerstone of the master programme. CRESCENTO project has integrated the knowledge-based triangle “education/research/innovation” concept from a teaching and professional training perspective. Regular interaction with industrial and cutting-edge research activities will constitute a crucial component of this 2-year joint MSc programme.

Regarding the **supporting services for students**, the project provided a **catalogue of services** related to outreach, training and support targeting students, staff, and faculty.

The project has defined the **student’s admission criteria**. Applicants to CRESCENTO Joint Master’s Programme on Circular Economy and Sustainable Development must have earned a first degree (bachelor’s or equivalent; not less than 3 years of full-time studies, i.e: 180 ECTS earned) from a recognized Higher Education Institution or provide documentation indicating that they will earn their first degree from such an institution by the time of enrolling in the programme. The first degree of applicants should be primarily in environmental studies or closely related fields. Other candidates with first degrees in agricultural studies, social sciences, legal and administrative studies, economics, engineering, or natural sciences will also be considered if they show commitment to environmental challenges, usually expressed through motivation letter or evidence of voluntary or professional work and on-the-job training.

The accreditation process will start soon. The Joint Master’s will be granted by universities that, applying the European Approach, have the shortest path and easiest process for accreditation. **University of the Aegean will apply for accreditation of Joint Master’s programme in Greece and later the University of Zagreb will follow a short accreditation path in Croatia.** To this end, the entry University will be the University of the Aegean, and the exit University will be the University of Zagreb. It is recognized that the rest of the CRESCENTO partnership will act as Contributing Partners for the implementation of the Joint Master’s and provide adequate teaching resources, additional training activities and internship, yet long accreditation procedures in the relevant countries would only hinder the implementation of the Joint Master’s if they were to be universities granting the degree. Following such approach, the overall accreditation will be achieved in a period of less than one year, allowing the complete implementation of the Joint Master’s by the **2025-26 academic year**.

2.4.4 State of the art of the monitoring process

Monitoring of the Progress Report 1.1. is still ongoing.

2.5 1321 ADRIONTRAINEE project

2.5.1 Short overview of the main activities performed, and target groups involved

The main goal of the project is to raise **multidisciplinary competencies and skills** on the topic of **Renewable Energy** by establishing a transnational network of universities and business activities and designing a joint “**Master’s Degree in Renewable Energy**”.

The main activities successfully performed by the project are the following:

In **WPT1** the activities were mainly concentrated in the establishment of the **network of universities and research centers**. The partnership agreed on the network’s mission, goals, partners roles and implementation modalities. The project prepared a Memorandum of Understanding for its formalization.

The project investigated the knowledge and capacity needs of the territories involved. It created and distributed a questionnaire to students and stakeholders and developed a **transnational baseline database** containing all results from the questionnaires compiled and analyzed (through graphs and basic statistics). All partners actively participation in **7 workshops**, with the aim to raise awareness and involve stakeholders in the Master

promotion. It also implemented **8 local trainings** where more than 30 trainees from local contexts participated and certificates of attendance of the trainings were delivered to participants.

In **WPT2** the activities were concentrated on the definition of a **joint master program** and a general strategy for the Sustainable Development of Renewables. University of Bologna who led the WP in strong collaboration with the other partners, defined a **Renewables-related capacity building** and knowledge sharing strategy. A **strategy document** which includes the strategy vision in relation to the project's initial contribution to the affected geographical area through the involvement of partners to ensure its alignment with the original goal and the state of play based on outputs O.T1.2. under activity A.T1.2 was created with the contribution of project partners. The curricula of courses were created, the role of departments in the teaching activities based on their disciplines were defined, and Mobility schemes, credits and type of certificates, recognized by all participating universities were agreed. An internship agreement was done and Internships agreements with the business sector within the network were signed. Moreover, each project partner prepared the material of the corresponding courses, contributed to the creation of an online platform. The consortium created a common Certification system, found ways to support mobility, and the coordination task force was put in place. The process for the accreditation of the MSc is on progress.

The **partnership** is composed from partners from Greece, Croatia, Italy, Albania, Bosnia-Herzegovina, and Serbia, that have a wide range of expertise going from spatial planning, green economy, energy-related engineering, digital energy systems, natural sciences, citizens' science, policy design, law. All the partners contributed to the establishment of the network, as well as the definition of the master programme.

The **target groups** reached during dissemination events and local trainings belong to the following categories: local public authorities, regional public authorities, sectoral agencies, higher education and research bodies and SMEs.

2.5.2 Financial progress and absorption rate

The table below provides an overview of the financial progress and absorption rate of the project. The absorption rate is excellent, well above the normal absorption rate of the ETC projects. The performance of ERDF and IPA partners is quite the same.

1321 ADRION TRAINEE	Project budget (AF)	Project reports amounts submitted to JS	Actual absorption rate	Pending FLC expenditures	Expected absorption rate
Total budget	935.750,00	923.538,05	98,69%	0,00	98,69%
<i>Out of which ERDF</i>	635.235,41	626.819,52	98,68%	0,00	98,68%*
<i>Out of which IPA II</i>	160.152,06	158.187,77	98,77%	0,00	98,77%

**PP2 has exceeded its budget: therefore, a budget cut of 30,34 EUR will be performed by JS. It will not have any impact in the overall ERDF and overall performance rate.*

2.5.3 Project main output achievements

The project reported the achievement of all the project outputs foreseen in the AF. The table below provides an overview in this regard:

Project acronym/ Programme Output Indicators	Project main output title as foreseen in AF	Output target value as foreseen in the AF (A)	Output target reported value (B)	Output achievement in % (B/A)
1321 ADRION TRAINEE				
OI_6d.1_1 Number of supported transnational cooperation networks	O.T1.1 Establishing the network and conception of the joint Master on Sustainable Development of Renewables*	1	1	100%*
OI_6d.1_2 Number of strategies and action plans developed in the field of environmental protection	O.T2.1 Renewables-related capacity building and knowledge sharing strategy, including the Joint Master Action Plan*	1	1	100%*

*Some integrations/clarifications are required on the delivered outputs.

The **ADRION TRAINEE network** is composed by the following funding members:

- University of Patras (Greece,)
- Algebra University College (Croatia)
- Alma Mater Studiorum – University of Bologna (Italy)
- International University of Sarajevo (Bosnia and Herzegovina)
- IUAV University of Venice (Italy)
- University of Novi Sad Faculty of Technical Sciences (Serbia)
- University of Tirana (Albania)
- University of Zagreb Faculty of Electrical Engineering and Computing (Croatia)

For the establishment of the network of joint agreement has been stipulated.

The project widened the network by inviting, and bringing on board relevant stakeholders (e.g. businesses, public agencies). Stakeholders' involvement was achieved through their involvement in TRAINEE activities, by signing ADRION TRAINEE's MoU, and by their active involvement in the master by offering internship options to master students through signing a developed specific internship agreement.

A **Joint Master Action Plan** in which the master's programme structure was defined, including mobility schemes, curricula offer, as well as credit and master's degree recognition aspects. Moreover, **a strategy document defined capacity building and knowledge sharing** activities for promoting skill development, knowledge exchange, and collaboration among partners and stakeholders is elaborated.

The **Joint Master programme in Renewable Energy** foresees **120 ECTS** (European Credit Transfer System) according to the following scheme:

- Attending all the compulsory courses in person (7 courses - 60 ECTS);
- Attending two compulsory online courses (2 courses – 12 ECTS);
- Attending three elective online courses (3 courses - 18 ECTS);
- Accomplish the internship program (15 ECTS) and the Thesis (15 ECTS).

The **Mobility scheme** foreseen include the following:

- **First semester:** All students will spend the first semester in Patras (in person). It will represent a mobility for all students, except for the students from Patras.
- **Second semester:** Students will have to choose between two possible specializations. If they choose the specialization for the curricula in planning and policies for renewables, they will spend the semester in Venice. It will represent a mobility for all students, except for those from Venice. If they choose the specialization for the curricula in Renewable energy systems engineering, they will spend the semester in Zagreb. It will represent a mobility for all students, except for those from Zagreb.
- **Third semester:** students will not have to spend the semester in a specific place. Students will still have the chance to spend the semester and follow the lectures from any of the universities involved in the Joint Master.

- **Fourth semester:** students will spend the fourth semester at the company where they have chosen to do their internship (3 full months, at minimum). The University affiliated with the company will support the students in managing the internship in the company and supervise the preparation and discussion of the master thesis.

All students will be enrolled in both the University of Patras and University of Venice. Then, their **degree will be accredited by both universities**. The degree will be signed by all universities participating to the Joint Master Program, and **the title will be recognized in all the countries of the involved universities**.

During the dissertation of the thesis there will be a joint commission to evaluate the activity.

2.5.4 State of the art of the monitoring process

Monitoring of the Progress Report 1.1. is still ongoing.