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and Business Oriented Ecosystem in Western Balkans
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YEARLY QUALITY REPORT I

Authors:

Project Quality Board

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1. Introduction

The IoT-ECO project is focused on strengthening relations between higher education and the wider economic and social environment. It proposes opportunities for intelligent solutions based on Internet of Things (IoT)/Internet of Everything (IoE) technology, their implementation for green transformation, and the development of institutional and academic capacities towards national and regional cooperation.

The project is structured into eight work packages: management (WP1), preparation (WP2), Experience and share know-how with EU partners on the establishment of the IoT - ECO hub development (WP3), developing the IoT - ECO hub (WP4), Common IoT - ECO hub for teaching materials and research (WP5), networking of WB HEIs on IoT as a resilient solution toward the green transformation for society and business (WP6), quality assurance and evaluation (WP7), and dissemination, and exploitation (WP8).

WP7 is focused on Quality assurance and evaluation led by the University of Prishtina (P4-UP) with the University of Montenegro (UoM) as co-leader. Through WP7 will be realized a holistic quality management approach to ensure high-quality project implementation. Activities planned throughout the project, include the development and implementation of a project quality assurance strategy, conducting process evaluation, conducting product evaluation, and reporting of quality assurance results.

The quality of the project implementation is ensured by the Project Quality Board.

The Yearly Quality Report is a comprehensive document that provides an overview of the quality of the project's realization during the first year. It is performed by the Project Quality Board (PQB). The document assesses the project's performance in terms of meeting its objectives, adhering to quality standards, and delivering on expected outcomes. The purpose of this report is to evaluate the project's overall quality status, identify areas for improvement, and share insights for future projects.

Following the Quality Assurance Plan and project activity plan, the First Yearly Quality Report reflects:

- ✓ Quality assessment of all events organized.
- ✓ Quality evaluation per work package deliverables
- ✓ Quality of developed teaching IoT materials (not applicable for the First Quality Report)
- ✓ Quality of functioning of IoT hub (not applicable for the First Quality Report)
- ✓ Quality of developed products and prototypes (not applicable for the First Quality Report)

- ✓ Quality aspects of project reporting, exploitation, and dissemination
- ✓ Impact of project activities in institutional, national, and regional level
- ✓ Student and industry involvement in project activities
- ✓ Internal and external quality processes of the new and updated courses and modules (not applicable for the First Quality Report)
- ✓ Quality of pilot courses: number of students enrolled and students' feedback (not applicable for the First Quality Report)

2. Project Quality Board (PQB)

During the kick-off Meeting in January in Sofia, the members of the Project Quality Board (PQB) were nominated. The Project Quality Board (PQB) consists of one participant from all partners, responsible for the quality assurance and evaluation of the project. The names of the people inside the consortium partaking in the PQB are published on the website of the project (<https://iot-eco.eu/list-of-the-members-of-the-quality-board/>).

One of the main deliverables of the IoT-ECO project WP 7 – Quality Assurance and Evaluation, is preparing a Yearly Quality Report. During the realization of the project, 3 Yearly Quality Reports have to be delivered, at the end of each year of realization of the project.

The PQB after gathering inputs from participants of study visits, trainings, other project events, etc., has produced an evaluation report of the quality of tasks within work packages, evaluating produced outcomes, organization of processes, and deliverables, with recommendations for further improvement. The yearly quality report included qualitative and quantitative data, depending on the project activity plan. The Project Quality Plan filled evaluation forms, and all other documents generated by QMB are considered as a part of the Yearly Quality Report.

The Yearly Quality Report is approved by PQB and delivered to the Project Management Board (PMB). Each Yearly Quality Report will be sent to an External Quality Expert for an external quality audit.

3. Quality assessment of all events organized.

During the first year of the IoT ECO project realization (01.12.2022.-30.11.2023), 3 Face to Face events were realized:

- a) WP1 Management - Kick off meeting in Sofia (25.01.2023. – 28.01.2023)
- b) WP2 Preparation - Workshop in Tirana (24.05.2023. – 27.05.2023)

c) WP3 Experience and sharing know-how with EU partners on the establishment of the IoT-ECO hub - Training in Graz (15.11.2023. – 19.11.2023)

The Project Management Board (PMB) and Project Quality Board (PQB) met regularly online and during all events.

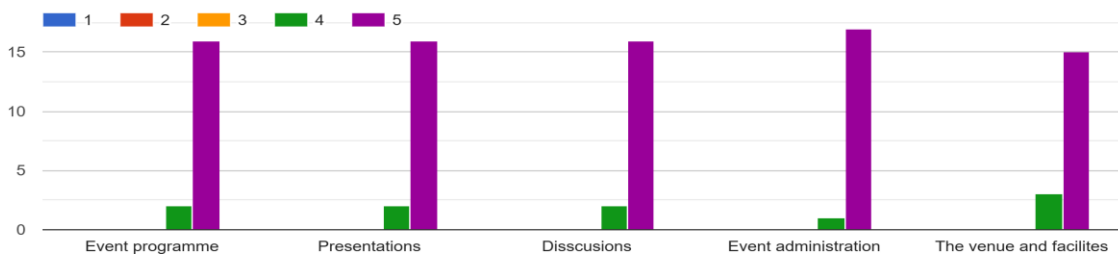
3.1 Quality Report for Kick of Meeting

Introduction

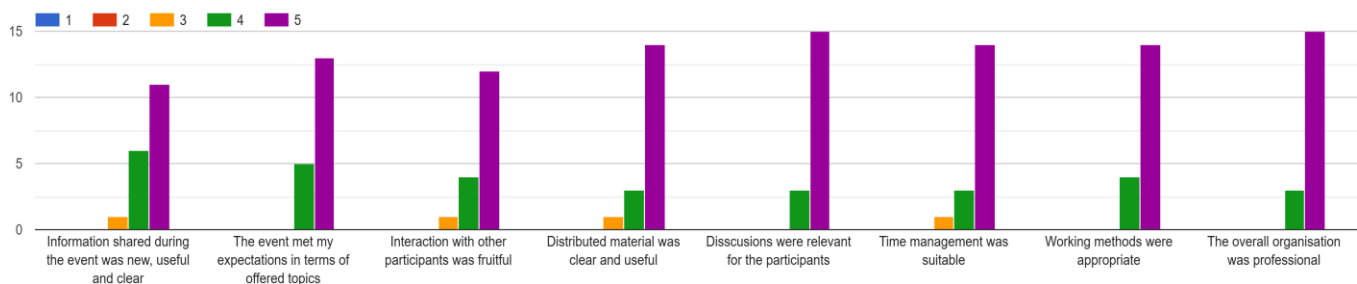
The project kick-off meeting was held on 25-28 January 2023, at Technical University-Sofia, Bulgaria. The meeting agenda and information about the meeting venue, accommodation offers, means of travel, etc. were sent in time to the meeting participants. Representatives of all project partner institutions participated in the event. After the meeting the participants were sent a meeting evaluation form (google form) to collect their feedback

The quality management team received in total 18 filled evaluation forms. After the data processing the results are shown below:

A. How satisfied you were with (1 = not satisfied, 5 = very satisfied)



B. Please, mark your agreement (1 = strongly disagree, 5 = strongly agree) with the following statements:



Other comments related to the project kick-off meeting 5 responses.

Great time in Bulgaria

TU Sofia is an excellent host! Thank you for your professionalism and hospitality.

It was nice to meet the partner HEI's representatives and to share ideas on project realization. Any further information about running the project will be helpful.

I participated online and didn't miss any of the on-site discussions. Great event!

Conclusion

Based on the results it can be concluded that participants were very satisfied with the kick-off meeting organization, including the kick-off program, discussions, presentations, venue, and facilities. Out of 18, 15 participants strongly agreed that the overall organization of the event was professional and that discussions were relevant for participants. Participants with very positive notes have evaluated event time management, distributed materials, working methods, and shared information. It is necessary to include more activities that will foster discussion about some practical problems during the meetings.

3.2 Quality Report for Workshop in Tirana

Introduction

The WP2 workshop was held on 24-26 May, at Polytechnic University of Tirana in Albania.

The study visits to project partner institutions: Port of Durres and University of Durres, were organized.

The meeting agenda and information about the meeting venues, accommodation offers, means of travel, etc. were sent in time to the meeting participants.

Representatives of all project partner institutions participated in the event.

After the meeting, the participants were sent a meeting evaluation form (google form) to collect their feedback.

Results of event quality survey
How satisfied you were with:

Part A

Timestamp	Event program	Presentations	Discussions	Event administration	The venue and facilities
5/30/2023 13:58:49	5	5	4	4	5
5/30/2023 14:26:18	5	5	5	5	5
5/30/2023 14:31:36	5	5	5	5	5
5/30/2023 18:17:27	5	5	5	5	5
5/30/2023 22:52:08	5	5	5	5	5
5/31/2023 11:34:20	1	1	1	1	1
5/31/2023 11:41:34	5	5	5	5	5
5/31/2023 14:04:21	5	5	5	5	4
5/31/2023 20:54:05	5	5	5	5	5
6/3/2023 10:35:01	5	5	5	4	4
6/4/2023 16:45:09	5	4	4	5	5
6/4/2023 17:01:05	4	5	5	5	5
6/4/2023 20:43:17	5	5	5	5	5
6/5/2023 8:51:55	5	5	5	5	5
6/5/2023 9:02:51	5	5	5	5	5
6/5/2023 11:50:04	5	4	3	5	5
6/5/2023 15:46:51	5	5	5	5	5
6/5/2023 15:50:05	5	5	5	5	5

Satisfaction scale 1= not satisfied; 5= very satisfied

Results of event quality survey

Part B

Please, mark your agreement with the following statements

Timestamp	Information shared during the event was new, useful and clear	The event met my expectations in terms of offered topics	Interaction with other participants was fruitful	Distributed material was clear and useful	Discussions were relevant for the participants	Time management was suitable	Working methods were appropriate	The overall organization was professional
5/30/2023 13:58:49	5	5	4	4	5	4	4	5
5/30/2023 14:26:18	4	5	5	5	5	5	5	5
5/30/2023 14:31:36	5	5	5	5	5	5	5	5
5/30/2023 18:17:27	5	4	5	5	5	5	5	5
5/30/2023 22:52:08	4	5	5	5	5	5	5	5
5/31/2023 11:34:20	1	1	1	1	1	2	1	1
5/31/2023 11:41:34	5	5	5	5	5	5	5	5
5/31/2023 14:04:21	5	5	5	5	5	5	5	5
5/31/2023 20:54:05	5	5	5	5	5	5	5	5
6/3/2023 10:35:01	5	5	5	5	5	4	4	4
6/4/2023 16:45:09	5	5	5	5	4	5	5	5
6/4/2023 17:01:05	5	4	5	5	5	5	5	5
6/4/2023 20:43:17	5	5	5	5	5	5	5	5
6/5/2023 8:51:55	5	5	5	5	5	5	5	5
6/5/2023 9:02:51	5	4	4	5	5	5	5	5
6/5/2023 11:50:04	3	4	5	5	5	4	3	5
6/5/2023 15:46:51	5	5	5	5	5	5	5	5
6/5/2023 15:50:05	5	5	5	5	5	5	5	5

Agreement scale 1 = strongly disagree, 5 = strongly agree

Results

The quality management team received in total 18 filled evaluation forms.

After the data processing the results are shown below:

Comments related to the project workshop (6 responses)

No further comments

It was so helpful time during the project meeting, also the creation of connection with all participants, and the welcoming from University of Tirana it excellent.

Many thanks to the organizers and to all participants!

The presentations should be submitted by e-mail. In this a way computer virus cannot damage flash memories.

The event was organized in a way that exceeded my expectations. A lot of efforts were made in order to satisfy the needs and requirements of the current work packages. All was done with love and care. Many thanks.

Thank you!

Conclusion

Based on the results it can be concluded that participants were very satisfied with the workshop organization, including the program, discussions, presentations, venue, and facilities. Out of 18, 16 participants strongly agreed that the overall organization of the event was professional and that discussions were relevant for participants. 1 participant was not satisfied with any part of the event and thus rated with the lowest scale the quality of all event-related components. Participants with very positive notes have evaluated event time management, distributed materials, working methods, and shared information. With presentations, materials, and based on discussions among participants during the workshop, the main deliverable of this work package (WP2) will be prepared.

3.3 Quality Report for IoT-ECO Training School

Introduction

The IoT-ECO Training School was organized on 15-18.11.2023 at the Technical University of Graz (Campus Inffeldgasse), Graz, Austria.

The agenda consisted of Training schools for students; Training for teachers; Study visits to research-oriented centers; Project management meetings as well and social and cultural activities.

This was one of the main project events organized with the project stakeholders, including students, academic staff, project management representatives, industry representatives, and university management.

The event included more than 55 participants.

The Higher Education Institutions from partner countries - Albania, Kosovo, and Montenegro have nominated up to 5 students and 3 academic staff to participate in training. The academic staff from TU Graz, TU Sofia, and the University of Patras shared good practices from the EU in the fields of Internet of Things, Green, and Digital transformation.

The meeting is welcomed by the Vice-Rector of the TU Graz. The study visit was organized to the research center Johanneum Research, one of the well-known industry leaders in the field.

The meeting agenda and information about the meeting venue, accommodation offers, means of travel, etc. were sent in time to the meeting participants.

Representatives of all project partner institutions participated in the event.

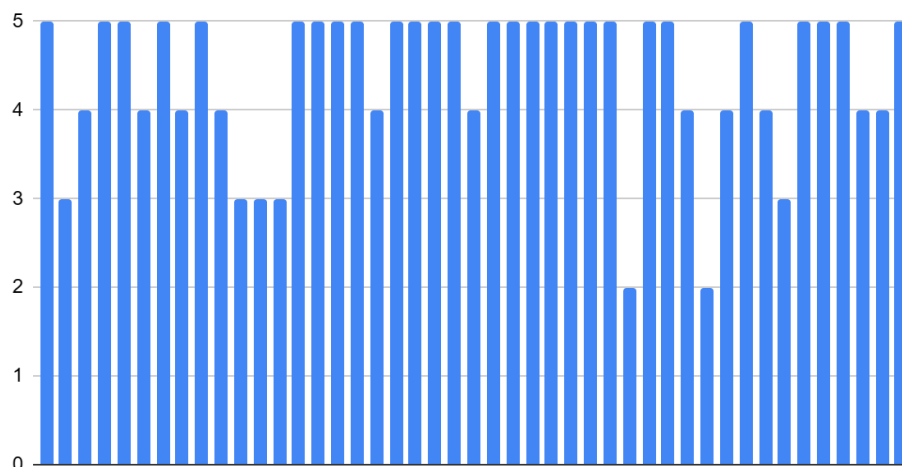
After the meeting, the participants were sent a meeting evaluation form (google form) to collect their feedback for Training School and other meeting events.

Results

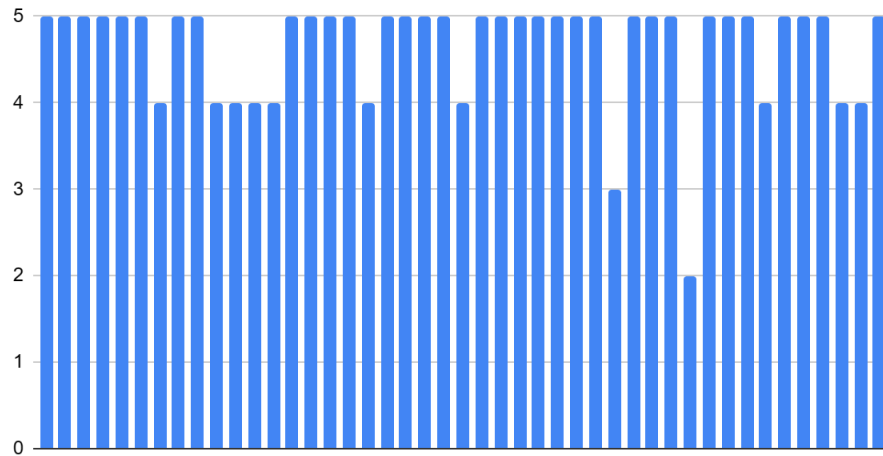
The quality management team received a total of 47 filled evaluation forms. The response rate is more than 90 %.

After the data processing, the results are shown below:

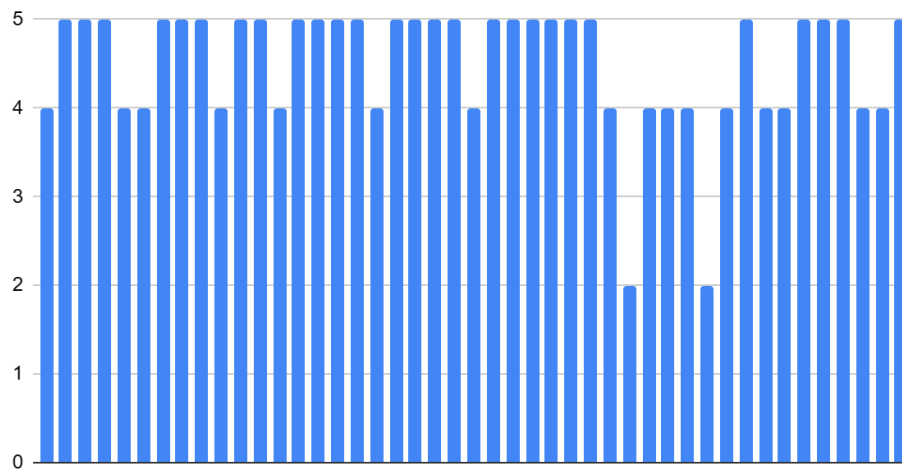
Satisfaction rate for delivered Presentations
(1 = not satisfied, 5 = very satisfied)



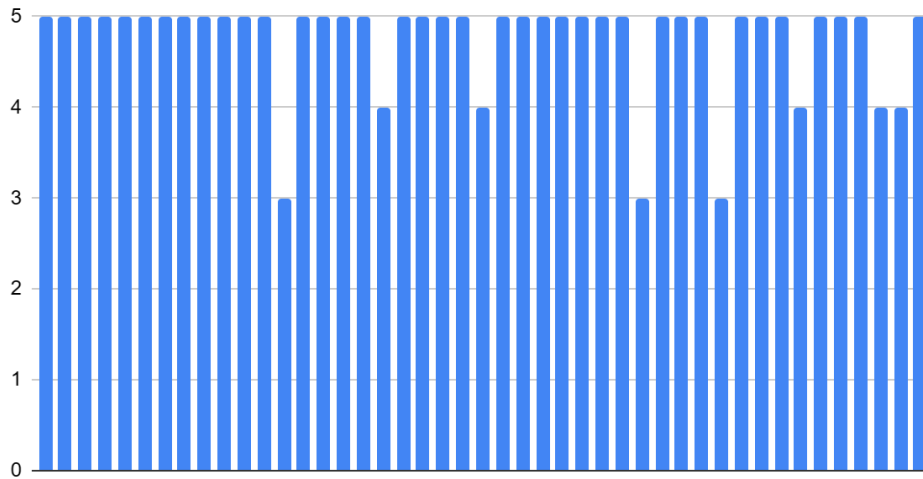
Satisfaction rate for Training School Programme
(1 = not satisfied, 5 = very satisfied)



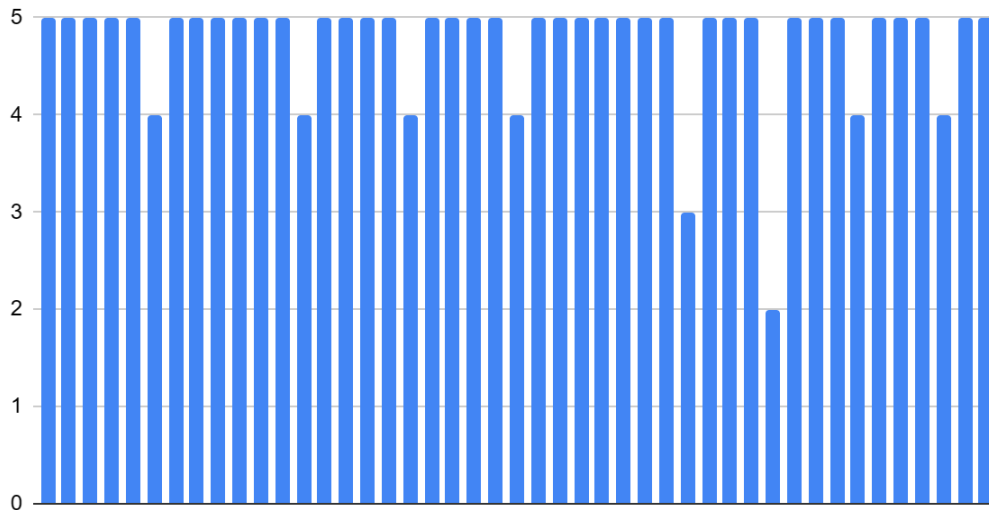
Evaluation for Discussions organized during event
(1 = not satisfied, 5 = very satisfied)



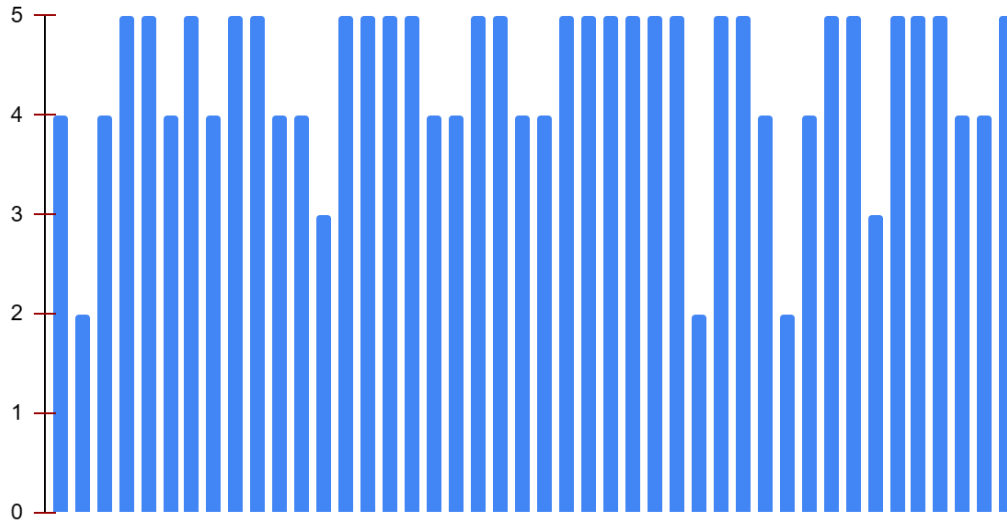
Satisfaction rate for Event administration
(1 = not satisfied, 5 = very satisfied)



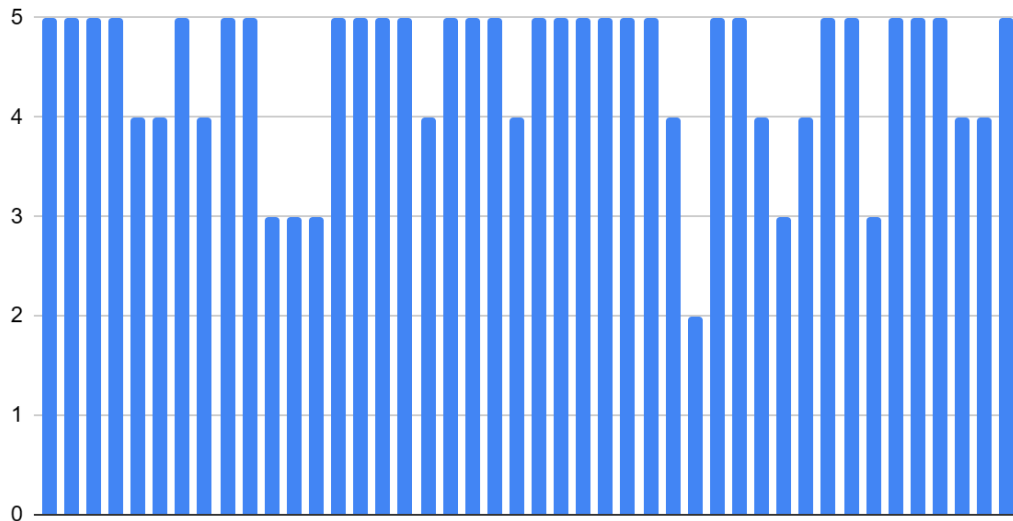
IoT-ECO Training School Venue and Facilities
(1 = not satisfied, 5 = very satisfied)



Information shared during the event was new, useful and clear
(1 = strongly disagree, 5 = strongly agree)

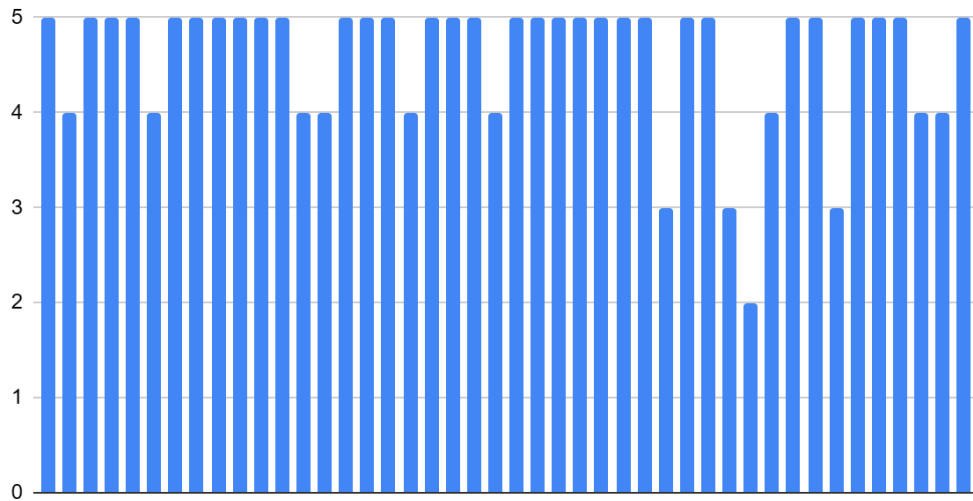


The event met my expectations in terms of offered topics
(1 = strongly disagree, 5 = strongly agree)

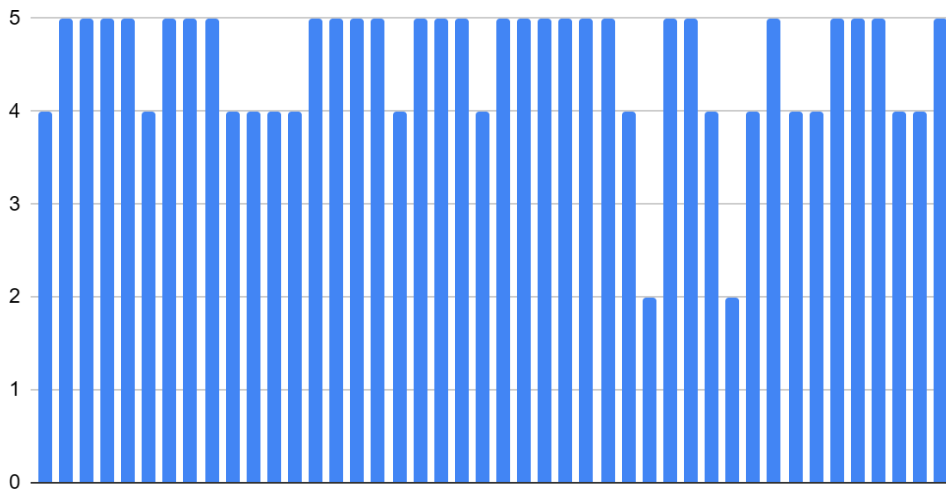




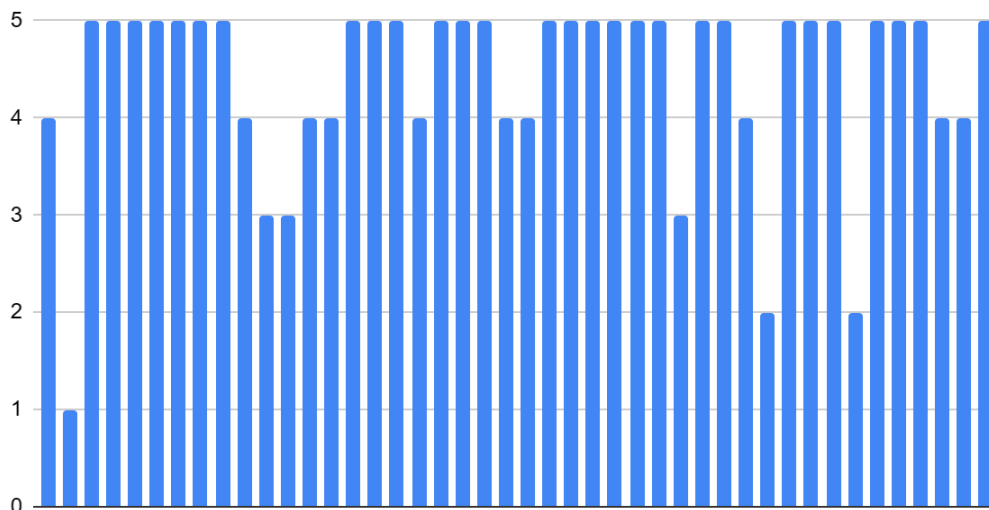
Distributed material was clear and useful
(1 = strongly disagree, 5 = strongly agree)



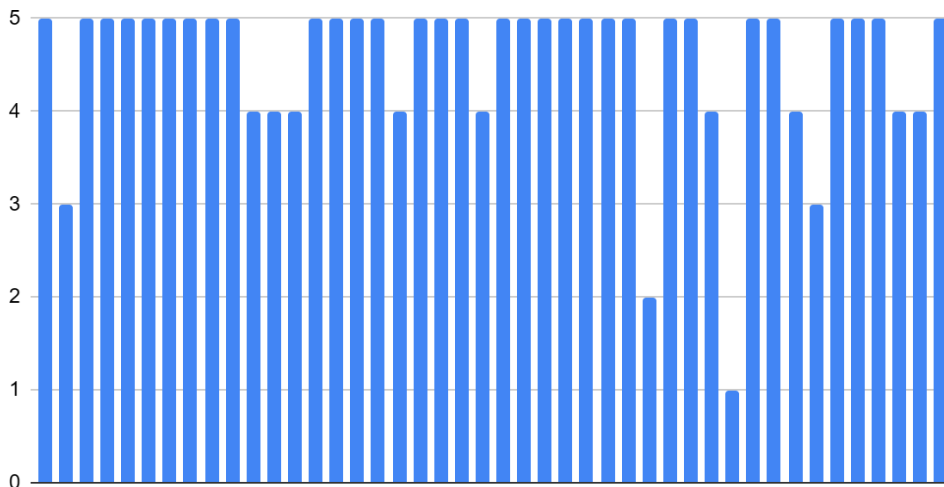
Discussions were relevant for the participants
(1 = strongly disagree, 5 = strongly agree)



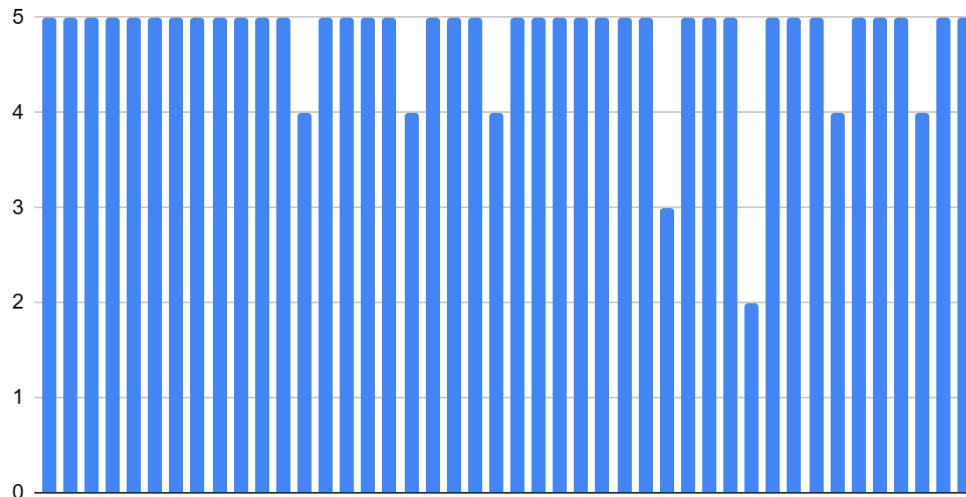
Time management was suitable
(1 = strongly disagree, 5 = strongly agree)



Working methods were appropriate
(1 = strongly disagree, 5 = strongly agree)



The overall organisation was professional
(1 = strongly disagree, 5 = strongly agree)



The participating students were asked for additional comments related to the IoT-ECO Training School. They provided the following remarks:

- *It was a new experience for me, and I really enjoyed it so I am looking forward to participating again.*
- *Really well put together. I had a lot of fun learning new stuff and seeing a new perspective on things that i value. I have no doubt that we all were happy to be there and can't wait to take part again in future amazing projects.*
- *Very good experience, i would like to add more training in interactivity.*
- *My experience at the IoT-ECO training school was positive overall. The hands-on projects and guest lectures added valuable insights. To enhance the program, I suggest incorporating more real-world environmental challenges into projects.*
- *The whole IoT-ECO Training School was an excellent experience from which we got to learn a bunch of useful and new information. We felt very welcome in all our events and presentations and so very fortunate to be part of such an innovative project. It was an honor to participate in a training school in which we enlarged our vision and also had so much fun doing so. To many more beautiful projects!*
- *Amazing experience. It was a honor and a great opportunity taking part of IoT-ECO training school for me. I learned a lot of new topics and how to implement them in real life. I made new friends and had a lot of fun learning new things.*
- *I think the presented lectures were useful for the students as part of the project IoT-ECO.*
- *All was excellent, me as a student cannot add anything because all was excellent planned. But maybe can suggest that the faculty can warm up a little bit before the start of the lecture. :)*
- *A suggestion about students to get more in discussions and giving ideas.*
- *Very good, more days.*

Teachers' additional inputs/comments /suggestions/remarks related to IoT-ECO Training School are listed below:

- *It was an informative workshop regarding IoT-related courses.*
- *More practice lessons for students*
- *I think that the meeting was very important and fruitful for the future work on the IoT-ECO project.*
- *Very well planned.*

- *Everything was great.*
- *Experience of EU partners gave some ideas for new courses and material.*

Since the agenda included meetings of project management and project quality boards, the inputs related to project management meetings were requested.

Additional comments related to project management and project quality meetings:

- *Everything was very well organized, and the project quality was amazing.*
- *Project management was well organized, with clear objectives and timelines and project quality meetings were beneficial.*
- *The management of this training school was just so excellent. Everything went perfectly fine, and I want to thank everyone who was constantly making sure we were comfortable during our stay.*
- *Great experience, great topics, and new information that we learned. The organization of the lecture and coffee break itself was excellent. Special thanks to the host of the event Prof Erich Leitgeb who is responsible for making us students feel like at home, and now wish to come back again.*

Participants were asked to evaluate the visit at the Joanneum Research Weiz. Their comments are summarized below:

- *Inspiring visit. The very well organized institution. Impressive talks with staff.*
- *Very interesting and has potential for future research collaboration.*
- *It was a great experience to see how things work firsthand. A taste of the industry after the academy part is refreshing and informative. Thank u for the tour!*
- *It was very interesting to see all the laboratories and to learn about production steps.*
- *'10/10*
- *I had the opportunity to see the latest achievements in the field of Sensors, Photonics and Manufacturing Technologies.*
- *Excellent*
- *It was an amazing opportunity to see what they do and how they work, and it was very useful.*
- *Very interesting, the presentation in the research center was very valuable.*
- *It was a good experience seeing how things work and how they are created, it was such an amazing gesture from them, showing us the work that they do.*
- *It was a very insightful hands-on approach to the manufacturing process, and I think that it was very successful in showcasing how things are done in a working environment.*
- *It was excellent, very useful information, all the organization was planned to be interesting. Very satisfying, laboratory that we visited, lecture that we listened were very interesting, and the best is that we felt comfortable because of prof Erich Leitgeb that was very friendly and provide as with all information and all other staff that we needed.*
- *One of the best things about the project was the visit to Joanneum Research. Will stay in my mind forever as a place of possibilities and science. I got motivated to see myself in a place like this, where I will have the possibility to implement my tech knowledge to improve the quality of life.*

Conclusion

Based on the presented results, we have concluded that the participants were very satisfied with the IoT-ECO training school organization, including: agenda, presentations, location and facilities. 80 % of the participants strongly agreed that the overall program design was professional. With the most positive feedback, participants

evaluated the time spent on the program, providing content, strategies, and shared information. Students provided very positive feedback about the IoT school while teaching staff how to design IoT courses and materials. Participants emphasized the importance of academic visits and their impact on research-focused institutions and industry. Dr. Erich Leitgeb and his team provided an excellent program and welcoming atmosphere.

Future project events should incorporate more activities to enhance and speed up communication between participants during sessions.

3.4 PMB and PQB meetings

Project Management Board and Project Quality Board met regularly, online, and during events.

During the meetings, representatives discussed the next tasks, schedule, activities, and results of the project that are crucial for effective project management and coordination. Attendees were encouraged before the meetings to review any relevant materials or reports in advance to ensure a productive discussion.

The meetings also involved analyzing the results and outcomes achieved so far. Partners share their observations, data, and insights to understand if the project is on track or if adjustments are required. This evaluation helps identify any gaps, successes, or areas in need of improvement. When the discussions are completed, the meeting concludes by summarizing the agreed-upon next tasks, activities, and schedule. That ensures that everyone understands their roles and can contribute efficiently to the project's progress.

3.5 Recommendations for improvements in future project events

Based on all previous information, recommendations for improvements to future project events are:

- For future events it is recommended to include more activities that will foster and accelerate interactions between participants during meetings.
- It is necessary to include more activities that will foster discussion about some practical problems during the meetings.
- Future project events should incorporate more activities to enhance and speed up communication between participants during sessions.

- Presentations and other documentation (list of participants, photos, minutes of meeting...) from the meetings should be made available to the participants as soon as possible and not later than one week after the meeting.
- During the meetings, pay more attention to aspects of project management, financial project management, industry inputs, and proposals for curriculum changes.
- The realized events should be more promoted on the project website, the websites of partner institutions, and through social networks.

4. Quality evaluation per work package deliverables with recommendations for improvements

For each of the evaluation criteria, the following assessment scale is applied:

- not achieved
- partly achieved
- largely achieved
- fully achieved
- n/a - not applicable at this stage of the Project

Table 4.1

WP	Deliverable	Fulfillment (not achieved, partly achieved, largely achieved, fully achieved, n/a)	Comments/ Observations	Recommendation for improvement
WP1	D1.1 Kick-off Meeting	Fully achieved	The Kick-off meeting was held on 25-28 January 2023, at Technical University-Sofia, Bulgaria. The meeting agenda and information about the meeting venue, accommodation offers, means of travel, etc. were sent in time to the meeting participants. Representatives of all project partner institutions participated in the event. Information about the event is presented on the website of the project, together with photos.	It is necessary to include more activities that will foster and accelerate interactions between participants during the following meetings

			After the meeting the participants, the meeting evaluation form (google form) was sent to collect their feedback. PMB and QB members were nominated. A list of attendees was signed by participants.	
	D1.2 Closing event	n/a	-	-
	D1.3 Project report	n/a	-	-
WP2	D2.1 Report on the Needs analysis in terms of skills and competencies in IoT of engineers needed for the green transformation in WB economy	Fully achieved	All partner countries prepared and delivered reports on Needs analysis in terms of skills and competencies in IoT of engineers needed for the green transformation in the WB economy. These reports are based on data, collected by WB HEIs. These reports were analyzed by all partners during the meeting in Tirana and evaluated as well-prepared and beneficial for further project activities	<p>Reports should be published on the project website.</p> <p>These reports should be used in planning new courses and updating existing courses at the WB HEIs.</p> <p>The results may be disseminated at international conferences or other events.</p>
	D2.2 Workshop organization on sharing the expertise of IoT green transformation	Fully achieved	The WP2 workshop was held on 24-26 May, at Polytechnic University of Tirana in Albania. The study visits to project partner institutions: Port of Durres and University of Durres, were organized. The meeting agenda and information about the meeting venues, accommodation offers, means of travel, etc. were sent in time to the meeting participants. Representatives of all project partner institutions participated in the event. Information about the event is presented on the website of the project, together with photos. A list of attendees was signed by participants. After the meeting, the participants were sent a meeting evaluation form (google form) to collect their feedback.	<p>It is necessary to include more activities that will foster discussion about some practical problems during the meetings.</p> <p>Presentations and other documentation (list of participants, photos, minutes of meeting....) from the meetings should be made available to the participants as soon as possible and not later than one week after the meeting</p>

<p>WP3</p>	<p>D3.1 Workshop on good EU IoT and green transformation practices and solutions in academia, business and society</p>	<p>Fully achieved</p>	<p>The IoT-ECO Training School was organized on 15-18.11.2023 at the Technical University of Graz (Campus Inffeldgasse), Graz, Austria.</p> <p>The agenda consisted of Training schools for students; Training for teachers; Study visits to research-oriented centers; Project management meetings as well and social and cultural activities. The event included more than 55 participants. The meeting agenda and information about the meeting venue, accommodation offers, means of travel, etc. were sent in time to the meeting participants.</p> <p>Representatives of all project partner institutions participated in the event. Information about the event is presented on the website of the project, together with photos. A list of attendees was signed by participants.</p> <p>After the meeting, the participants were sent a meeting evaluation form (google form) to collect their feedback for Training School and other meeting events.</p>	<p>Future project events should incorporate more activities to enhance and speed up communication between participants during sessions.</p> <p>It should be very useful to create Google Drive for collecting all the project's documents and evidence.</p>
	<p>D3.2 Teachers mobilities at TU-Graz Teachers mobilities in UPAT Students mobilities in TU-GRAZ, UPAT and TUS</p>	<p>Partly achieved</p>	<p>Teacher's and student's mobility in TU Graz were realized. There were more than 55 participants.</p>	<p>If some partners did not manage to provide the necessary number of participants (3 professors, 5 students per training in Graz), it is recommended to find a way to send to the next training (UPAT or TUS) a greater number of professors/students</p>

				to achieve goal of the project regarding number of trained professors and students.
WP4	D4.1 IoT-ECO hub	n/a	-	-
	D4.2 On-line training of teachers and staff to create, upload, and share content at the IoT-ECO hub.	n/a	-	-
WP5	D5.1 Teaching materials on IoT and Green transformation. A green transformation ecosystem model of the Port of Durres as a virtual prototype made available on the IoT-ECO hub.	n/a	-	-
	D5.2 New or updated modules, courses, and sets of courses toward IoT and green applications. Integration in the WB HEIs syllabi, Probation of pilot courses	n/a	-	-
	D5.3 Invited/guest lecturer from business or associated partners	n/a	-	-
WP6	D6.1 Roundtables and Workshops with universities, Professional High Schools, businesses and society	n/a	-	-
	D6.2 Organizing open days / informing sessions	n/a	-	-
WP7	D7.1 Project Quality Plan	Fully achieved	A Project Quality Plan is one the most important quality assurance and evaluation reports that reflect the main strategies and methodologies for guaranteeing the quality of the overall project. The	The Project Quality Plan should be published on the project's website even if it is distributed to all partners.

			Project Quality Plan is prepared and approved. Templates of all project documents were created and delivered (Event attendance list, Evaluation form, Presentation template, Document template)	
	D7.2 Yearly Quality Report	Partly achieved	This is the first Quality Report after the first year of the project's realization. The report also consists of the results of the evaluation of all realized events. After each event organized within the project implementation (Kick-Off, WP2 workshop, Training in Graz), PQB gathered feedback from participants. Reports regarding the activity evaluation were prepared and distributed after each meeting.	The first Quality report should be published on the project's website. The following quality reports should contain an assessment of the progress of previous yearly quality reports.
WP8	D8.1 Project website and social media profiles and promotion of all activities related to the project	Largely achieved	The project website and social media pages for promotion were created. The project website is published on the World Wide Web and accessible for free to all the stakeholders in the English language. The project logo was created. Marketing materials were created (roll-up, poster, flyer, brochure).	The project website should be improved with all received recommendations. The project website should be continually updated. All partner dissemination activities should be presented to the coordinator of the WP8 to promote on the project's website and/or via the project's social media. Dissemination activities through the project's social networks should be more intensive

5. Quality aspects of project reporting, exploitation, and dissemination with recommendations for improvements

For each of the evaluation criteria, the following assessment scale is applied:

- not achieved
- partly achieved
- largely achieved
- fully achieved
- n/a - not applicable at this stage of the Project

Table 5.1

WP8	Task name	KPI	Fulfillment (not achieved, partly achieved, largely achieved, fully achieved, n/a)	Comments/ Observations	Recommendation for improvement
T8.1	Design of the visual identity of the project	Development of dissemination and exploitation project core team	Partly achieved	The dissemination and exploitation project core team were not formally created even though all partners realized all planned dissemination and exploitation activities. Project Dissemination Plan was created and distributed on time. Project logo was created.	Each partner must appoint one person responsible for dissemination activities. All partners should be encouraged to promote the project and to disseminate all project's activities.
		Preparation of communication guidelines for partners at the beginning of the project	Fully achieved		
		Creation of project logo	Fully achieved		
		Definition of project visual identity (project logo, uniform templates for internal and external project communication)	Fully achieved		

				Marketing materials were created (roll-up, poster, flyer, brochure).	
T.8.2	Design, and development of the project website and social network pages for promotion	Promotion materials designed and shared with the consortium.	Largely achieved	Marketing materials were created (roll-up, poster, flyer, brochure).	<p>The project website should be improved with the following recommendations.</p> <p>The project website should be continually updated.</p> <p>All partner dissemination activities should be presented to the coordinator of the WP8 to promote on the project's website and/or via the project's social media.</p> <p>The project website and social network pages should be promoted by all partners.</p>
		Design project website and social media pages for promotion	Largely achieved	The first Newsletter was created and shared with the consortium.	
		Preparing marketing materials	Partly achieved		
		Promotion in the WB region and stakeholders	Partly achieved	<p>The project website and social media pages for promotion were created.</p> <p>The most promotional activities will be realized in the second and third years of the project</p>	
T8.3	Promotional materials preparation and distribution	National and regional events such as roundtables, workshops, trainings and info days for each partner support the dissemination and visibility of	Partly achieved	<p>Promotional materials are created.</p> <p>Most national and regional events will be realized during the second and third years of the project</p>	<p>All partners should print promotional material and distribute it during some roundtables, workshops, and trainings... to promote the project activities.</p> <p>All partners should distribute newsletters and inform the</p>

		the project.			coordinator of the WP8 about it.
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Table 5.2

WP8	Milestone	Means of verification	Fulfillment (not achieved, partly achieved, largely achieved, fully achieved, n/a)	Comments	Recommendation for improvements
M18	Project dissemination Plan	Project Dissemination Plan created and published on the website in a pdf format due M6	Fully achieved	A project dissemination plan is created and published on the website.	The Project Dissemination Plan should be periodically reviewed and updated

6. Impact of project activities at institutional, national, and regional level

The IoT-ECO project has created a strategic partnership between universities for the exchange of experiences in IoT technology in Higher Education in WB countries to help improve the quality of study programs by creating a new offer in the region, preparing professionals for tomorrow's industry, and making the region more competitive in challenges towards regional development.

The realized project's meetings enabled the exchange of experiences and knowledge among project partners in the field of IoT and Green transformation. Established connections between project partner staff will boost regional cooperation in IoT. During the training in Graz, students and professors of WB HEIs were trained in the field of IoT and Green transformation by EU partners. It was a great opportunity to exchange knowledge and experience in that field with all project partners. Participants of the training had the unique opportunity to visit the organization Joanneum Research Weiz which develops solutions and technologies for a broad range of industries and public agencies and is engaged in top applied research at an international level. The information and knowledge gathered during this visit were of great importance to all participants. The training was very well evaluated by all participants.

During the meeting, academic staff had a very fruitful discussion about IoT courses that they plan to create or modify to provide innovative education in the field of green transformation with IoT technology in WB HEIs. Partners selected different courses so they could share curricula at the consortium level.

In the following project activities, it is necessary to strengthen the cooperation between the partners to have a significant long-term impact that will be reflected especially to researchers, higher education institutions, students, and industry in WBC.

7. Student and industry involvement in project activities

In the first year of the project implementation, students had training in the field of IoT and Green transformation in Graz. Each WB HEI had the obligation to send five students to the training in Graz. The training was evaluated as very successful by all participants.

During the training in Graz, all participants had an opportunity to visit the organization, Joanneum Research Weiz, which develops solutions and technologies for a broad range of industries and public agencies.

During the WP2 workshop participants visited the Port of Durres to get a piece of knowledge about its IoT implementation.

In the following project activities, it is strongly recommended to involve students and industry as actively as possible.

8. Risk analysis

Following the Project proposal, Quality Assurance Plan, and realized activities, we list the identified potential risks and describe the measures we would undertake to mitigate the anticipated risks, together with the expected risk level.

Risk 1 Partnership risks: Misunderstanding between partners leads to a slowdown of activities

Mitigation measures: Project partners have signed a detailed agreement that regulates relations, while previous contacts have resulted in established cooperation. Due to the workload that may occur during the project implementation, the consortium has divided the most time-consuming wp to a leader and co-leader to balance the workload and not risk the project implementation.

Risk level: low

Risk 2 Management risks: Lack of human resources, project delays, misunderstanding of new financial rules for project management (lump sum approach)

Mitigation measures: Project partners have defined project staff with many years of project experience; well-defined milestones and deadlines for the project activities; continuous consultation between partners, assuring that deadlines are met and delays

are not encountered. In continuous consultation within the consortium and with the project officer to clarify any financial-related issues

Risk level: low

Risk 3 Technological risks: Not enough prepared laboratories for delivering the courses with new technologies.

Mitigation measures: Project partners have defined project costs regarding the needed equipment and also IoT hub will offer the necessary virtual platform for course delivery.

Risk level: low

Risk 4 Academic staff risks: Not well-trained staff for course delivery.

Mitigation measures: Project partners have defined all training activities which should ensure that the necessary number of trained academics is accomplished

Risk level: low

Risk 5 Data Gathering: Sometimes is not easy to gather information from the industry and they delay in responding.

Mitigation measures: Regarding this risk, each of the partners will mitigate the work of gathering data to specific persons who will take care to provide the report on time.

Risk level: low

Risk 6 Active student involvement: Due to study workload and exams students sometimes do not show interest in participating in project activities.

Mitigation measures: Organizing attractive events for students such as award competitions, summer schools, and study visits.

Risk level: low

Risk 6 On-going IoT-ECO hub projects: ensuring the sustainability of hub functioning during and beyond project life.

Mitigation measures: The establishment of the IoT-ECO hub is not designed just for teaching and research but will help students to be engaged in real applications of the IoT technology in collaboration with other students from the consortium. Organizing events with industry while presenting them the benefits of engaging with IoT hub activities.

Risk level: low

Risk 7 Impact of project activities at institutional, national, and regional levels: development of new courses focused on IoT and Green transformation.

Mitigation measures: Each WB HEIs is defined completely new IOT-oriented course. It will be developed through cooperation with the project's partners, industry, society, and the IoT-ECO hub.

Risk level: low

The PMB and PQB will analyze the other risks that might occur during project implementation and will take necessary measures to avoid and address them in due course.

9. Conclusion

The First Yearly Quality Report has demonstrated the successful organization of all planned activities. It was created following the Quality Assurance Plan and it covered the activities of 4 work packages, namely: WP1, WP2, WP3, WP7, and WP8. The Project Quality Plan, filled evaluation forms, and all other documents generated by QMB are considered as a part of the Yearly Quality Report.

The First Quality Report presented an overview of the quality assessment of realized activities/deliverables to the project plan activities. The general conclusion is that the agenda of the events was well-received by the participants (both academic staff and students) who expressed their satisfaction with its structure and content. Moreover, the incorporation of EU practices and visiting organizations was positively received and considered beneficial by the participants. All planned activities in the first year of the project are realized. The encouraging results obtained from the first-year evaluation serve as a strong foundation for the continued success of the project. However, the First Quality Report also presents recommendations for improvements where applicable. Details of all recommendations for improvements are given at the end of Chapter 3 as well as in Table 4.1, Table 5.1, and Table 5.2.

With ongoing collaboration and support from all stakeholders, we are confident that subsequent evaluations will yield similarly positive outcomes, contributing to the long-term effectiveness and sustainability of the project.

The Yearly Quality Report, created by QMB and adopted by PMB, will be sent to an External Quality Expert for an external quality audit.