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1. Introduction

As foreseen in the project's Quality Assurance & Evaluation Plan, 6 internal Quality Reports will be issued, one every 6 months of the DeCAIR project. Every six-months, a combined Quality Report will be created and addressed to the Quality Committee to support the quality assurance and quality control process, which will include the Project Performance Reviews and the Quality Control Reviews.

Project Quality Reports will be prepared for all activities of the project and the project Quality Monitoring Table will be updated with the information, which will serve as a Monitoring Tool for the collection of information about the status of processes and deliverables regarding their quality characteristics.

In this report we evaluate the project's conformance against the criteria and specifications set in terms of quality assurance and quality control. In order to accomplish that we will accumulate, analyse and summarise the results from the internal and external quality evaluations done in the previous 6 months of the project.

The elements that will be regularly collected and evaluated are findings from:

- Regular Internal measurement of satisfaction among partners
- Partnership Meetings
- Deliverable Evaluation
- Monitoring details

Due to some internal procedure delays regarding the development of the Quality Assurance & Evaluation Plan, the deadline for the submission of the first Quality Report has been missed. This issue of the Quality Report covers the 1st year of the project, i.e. from January 15, 2021 until January 14, 2022 and is a combination of the 1st and 2nd report.

For this issue we have identified and collected information from the project partners for the evaluation of 5 partnership meetings, 3 events, 2 trainings, 2 deliverables.

All internal surveys were conducted via Google Forms. This ensured an easy access for all partners to submit their responses and have them all in an organised manner.

2. Quality Assurance

2.1 Project Performance Review

Project performance reviews is carried out during the 1st year of the project in order to verify that all project plans and processes defined in the Project Description are executed as planned, in terms of time, quality, project organisation, dissemination and communication and stakeholder satisfaction, according to the Indicators set out. The Project performance review uses all the available information collected indicated in the following table:

Table 1. Project Performance Indicators

Name	Target	Result
Progress Reports made	6-months	No
Internal Project Evaluation done	Yearly	Not yet
Internal Evaluation of project performance (satisfaction survey)	>70% weighted average	-
Dissemination and Communication Report delivered	6-months (according to the quality dissemination indicators)	Yes
External Project Evaluation Report done	Due date: 14 September 2022 and 14 December 2023	Not yet

The indicators that are used for the evaluation of the effectiveness of the Dissemination and Communication activities concern both quantitative and qualitative ones, as follows:

Table 2. Quantitative Dissemination Indicators

Quantitative indicators	Target	Result
Number of newsletters issued	Every 6 months (starting January 2022)	Scheduled, not started yet
Social media accounts created	Within 3 months from the start	Yes (Facebook, Instagram, Twitter, You Tube)
Number of posts on Social Media	2 per month	Yes
Number of followers on Social Media (collective)	500 followers	In progress
Project website created	Within 2 months from the start	Yes (http://decair.ju.edu.io/Home.aspx)
Visitors' metrics	To be collected	-
Number of Hits in the project website	To be collected	-
Workshops organised	9 workshops (6 in JO & 3 in LB)	Scheduled, not started yet

Quantitative indicators	Target	Result
Number of people participating in Workshop	25-40 participants per workshop	-
Number of non-project events participation and presentation of the project	> 1 per partner	6 (1 online, 4 in Jordan, 1 in Lebanon) ¹
Production and circulation of printed materials	1.000 printed brochures per partner country	UJ has printed 1.000 brochures for the project
Media coverage (articles in specialised press newsletters, press releases, interviews, etc.)	>5 per partner country	Interview: DeCAIR Project General Coordinator was hosted by the University of Jordan Radio station to discuss AI and the DeCAIR project. ²
Posts about the project on various internet websites and Social Media pages	>5 per partner country	<ul style="list-style-type: none"> • 1 post on the LU website (http://www.ulfg.ul.edu.lb/news/2349) • 4 posts on the UJ news website (http://ujnews2.ju.edu.jo/en/english/Home.aspx)
Meetings with stakeholders (target audience) beyond the scheduled networking activities	>1 in each partner country	<ul style="list-style-type: none"> • Online dissemination meeting organized by UJ on March 4th 2021 • Info Day meeting with students in LU on September 22nd 2021³

Table 3. Qualitative Dissemination Indicators

Indicators	Target	Outcome
Feedback from the target groups in the dissemination workshop events	>70% weighted average	Not yet organised
Feedback from the internal project evaluation regarding dissemination	>70% weighted average	Not yet
Outcome of the contacts with stakeholders and policymakers in JO and LB (cooperation agreements, joint projects, etc)	Positive outcome through the contacts made	Not yet, in progress

¹ The results are stated in Annex I

² Information are stated in Annex II

³ Information are stated in Annex III

3. Quality Control

In the 1st year of the project the following key outputs have been delivered, per the Table of Outputs in the Quality Plan.

Table 4. Updated Quality monitoring table

#	Deliverable Name	Category	Status	Status of evaluation
D1.6	Concluding Report on Surveying and Identifying the Needs for AI and Robotics in Jordan and Lebanon	Document	Ready (report finalised on 30 June 2021 after revision)	Done
D2.1	Structure of the new master and bachelor programs	Event	2-days meeting event done (day 1: 30 Apr 2021 / day 2: 7 May 2021)	Done
D2.2	Report on the new developed syllabi and content of the courses in the new programs	Document	Started, not finished	N/A
D5.1	Report on the syllabi and content for added/modified courses in existing master programs	Document	Ready (report submitted on 23 November 2021)	Done (report was accepted without modifications)
D6.1	Report on the syllabi and content for added/modified courses in existing bachelor programs	Document	Started, not finished (this task is part of D2.2)	N/A
D7.1	5 Intensive training courses delivered by EU experts partners on advanced topics in AIR.	Training	PYTHON course (26-7-2021 to 4-8-2021)	Done
D7.2	14 one week training courses delivered by EU experts partners on advanced topics in AIR.	Training	ROS course (2-11-2021 to 15.12.2021)	Done
D9.1	2 raising team awareness workshops of available modern teaching methods in higher education	Event	Not started	N/A
D9.2	Manual of good practices on the application of modern teaching methods	Document	Not started	N/A
D10.4	Monitoring program progress and evaluation of individual courses	Document	Not started	N/A
D11.1	2 Awareness workshops in AI and Robotics	Event	Not started	N/A
D11.1	Report on the main needs of industry, commerce and society, as well as the available expertise in	Document	Not started	N/A

#	Deliverable Name	Category	Status	Status of evaluation
	AI and robotics.			
D11.2	Workshop to streamline problem identification and solution among industry and academia	<i>Event</i>	<i>Not started</i>	<i>N/A</i>
D11.2	Manual of good practices for M.Sc. program and a source for generating research ideas that identifies a clear set of steps and guidelines for approaching, communicating and suggesting solutions to stakeholders	<i>Document</i>	<i>Not started</i>	<i>N/A</i>
D12.2	2 workshops in Jordan to announce the new master and bachelor programs established	<i>Event</i>	<i>Not started</i>	<i>N/A</i>
D12.3	2 workshops in Jordan and Lebanon to announce the improved master and bachelor programs in Universities	<i>Event</i>	<i>Not started</i>	<i>N/A</i>
D13.1	DeCAIR Kick-off meeting	<i>Meeting</i>	<i>19 January 2021</i>	<i>done</i>
D13.3	Steering Committee meetings	<i>Meeting</i>	<i>9 meetings performed: 19 March 2021 (online), 23 April 2021 (online), 21 May 2021 (online), 18 June 2021 (online), 16 July 2021 (online), 17 September 2021 (online), 22 October 2021 (online), 27 November 2021 (Amman, Jordan)</i>	<i>4 meetings reviewed - Short meetings that aimed to discuss specific topics have not undergone an evaluation.</i>

3.1 Meetings' evaluations

The post-meetings evaluations among project partners, aimed to measure mainly the effectiveness of the partnership meetings as well as check the progress and effectiveness of the project from the partners' point of view.

After each meeting, a meeting evaluation survey is conducted. In each survey, each partner's project representatives rate the meeting in a questionnaire, using Google Forms for the distribution to the partners.

The questionnaire used for these surveys consists of 20 closed questions on 2 sections on 5-point Likert scale, where respondents have to give a grade between 1 and 5, with 5 being the highest (Strongly Agree) and 1 the lowest (Strongly Disagree), as well as 3 open-ended questions.

At the end of the questionnaire respondents are asked to declare their organisation, for the purpose of ascertaining partner participation.

There is a base questionnaire regarding all meeting evaluations. Nevertheless, depending on the type and purpose of each meeting, some questions might be adjusted.

During the project several Steering Committee meetings have been organised in order to discuss the monitoring of progress towards completion of the deliverables and of the assigned Tasks. These short meetings that aimed to discuss specific topics have not undergone an evaluation.

Overall, the meetings that have been held from the beginning of the project until January 14, 2022, are 9.

3.1.1 Kick-off Steering Committee meeting (online, 19 January 2021)

The kick-off Meeting Evaluation was implemented after the meeting that was held online on January 19th, 2021. A questionnaire was prepared and was delivered to the partners through Google Forms.

Partners submitted their answers between January 20th and 25th, 2021. Out of 33 participants in the meeting (according to the Minutes), 12 responses were received (36% participation), coming from 8 out of 10 participating partners. This is illustrated in Figure 1.

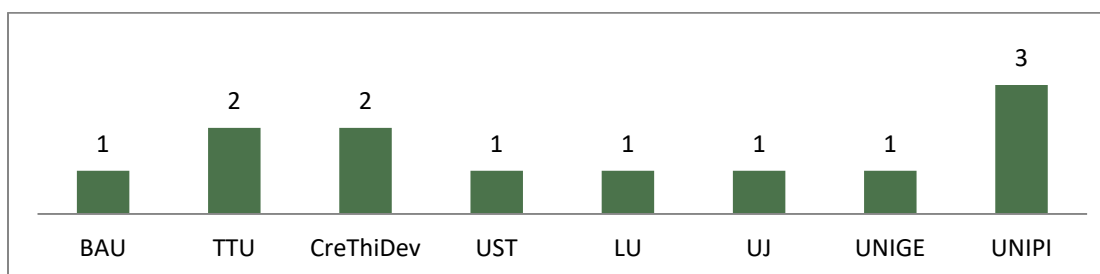


Figure 1. Number of surveys submitted (N=12)

The responses given by the participants are analysed below.

Analysis of scaled questions

The responses received can be found below in Table 5 and in Figures 2 and 3. Most participants responded with a positive reply, marking the responses as Agree (34%), and Strongly Agree (63%) overall, for both sections. On average there was 92% agreement with the statements of the 2 sections, well above the appointed 70% threshold, suggesting that participants were overall satisfied with the effectiveness of the project meeting.

In the first section of questions, about the Meeting itself, the average agreement was 93% with answers mostly at Strongly Agree (68%) and Agree (31%), while a very small percentage (1%) is Neutral. The lowest rating received was 90% ("Q2 - The agenda was balanced, focusing on all key aspects of the project", Q4- The

presentations by the partners were clear and understandable” and “Q5- Partners were able to interact with the other project’s partners”) and the highest 98% (“Q1- The meeting was well planned and organized” and “Q3- The participants received all information about the meeting on time”).

In the second section of questions about the perception of the Project after the meeting, the response rates are mostly Strongly Agree (53%) and Agree (42%), while a small percentage (6%) is Neutral. All statements received similar response rates, ranging from 88-92%.

As we can see from the graphs, in most statements, the number of responses “Strongly Agree” statement dominate over the “Agree” responses. The only exception is for Q2 (“The agenda was balanced, focusing on all key aspects of the project”) and for Q5 (“Partners were able to interact with the other project’s partners”), where the Strongly Agree responses received the same rate with the Agree responses (50%).

The statements that received one Neutral response are: Q4 “The presentations by the partners were clear and understandable”, Q7 “The meeting contributed positively to the progress of the project and the scheduling of the next steps” and Q8 “The communication between the partners was effective and clear”.

Table 5. Analysis of responses on 1-5 scale for the kick-off meeting evaluation

		Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5-Strongly agree	weighted average
Section 1. The meeting								
Q1	The meeting was well planned and organised.	12	0%	0%	0%	8%	92%	98%
Q2	The agenda was balanced, focusing on all key aspects of the project.	12	0%	0%	0%	50%	50%	90%
Q3	The participants received all information about the meeting on time.	12	0%	0%	0%	8%	92%	98%
Q4	The presentations by the partners were clear and understandable.	12	0%	0%	8%	33%	58%	90%
Q5	Partners were able to interact with the other project’s partners.	12	0%	0%	0%	50%	50%	90%
Q6	The timetable was respected.	12	0%	0%	0%	33%	67%	93%
		Avg. 1	0%	0%	1%	31%	68%	93%
Section2. The project after the meeting								
Q7	The meeting contributed positively to the progress of the project and the scheduling of the next steps.	12	0%	0%	8%	42%	50%	88%

		Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5-Strongly agree	weighted average
Q8	The communication between the partners was effective and clear.	12	0%	0%	8%	42%	50%	88%
Q9	The meeting helped with the development of trust and positive attitudes among partners.	12	0%	0%	0%	42%	58%	92%
		Avg. 2	0%	0%	6%	42%	53%	89%
		Avg. 1,2	0%	0%	3%	34%	63%	92%

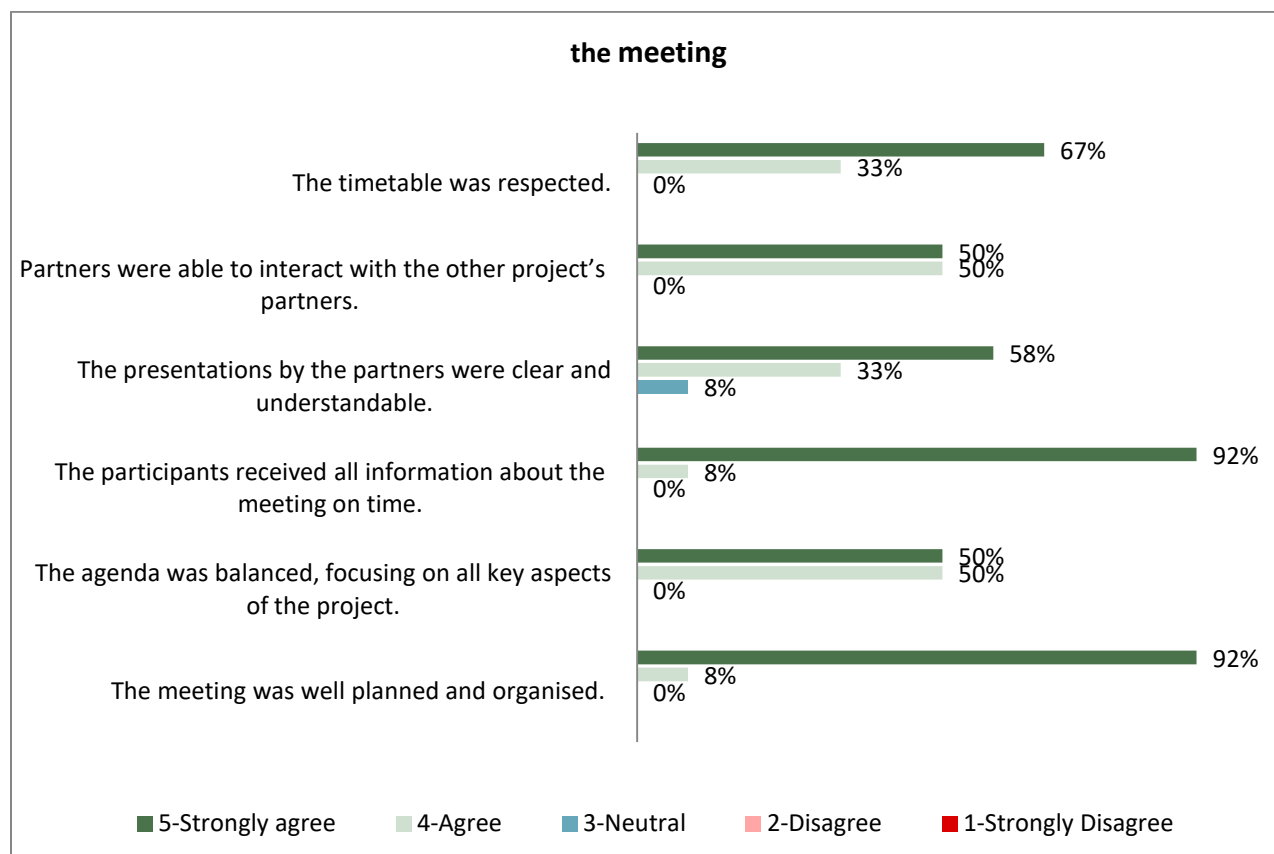


Figure 2: Analysis of responses on 1-5 scale for the kick-off meeting evaluation (“The Meeting”)

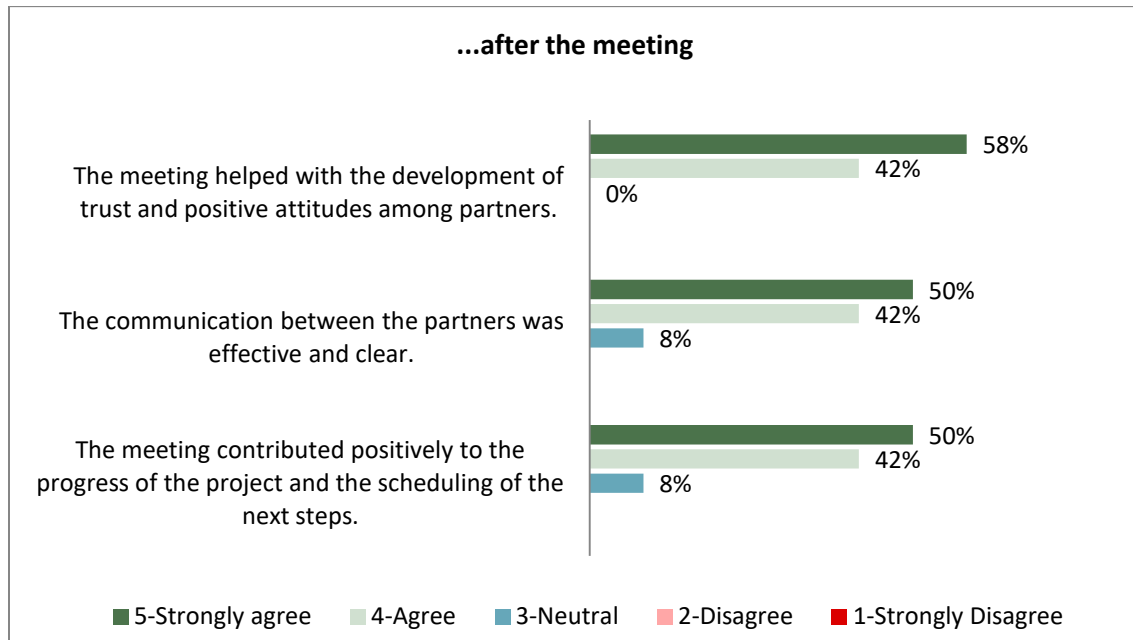


Figure 3: Analysis of responses on 1-5 scale for the kick-off meeting evaluation (“... after the Meeting”)

Open ended questions

In this section of the questionnaire, we asked partners about their perception of future obstacles as well as suggestions and aspects that can be improved. The open-ended questions included the following:

Q10. The following element is still a major concern to me:

The specific received responses received in this question are the following:

- *Distribution of work among partners.*
- *When travelling, meeting each other and visiting the facilities is possible again.*
- *Some partners have poor connection to the internet. They were disconnected from the meeting for some time. This is a technical problem that adversely affects online meetings in general.*

Q11. Suggestions and aspects to be improved:

In this question we received only one response. The suggestion received stated the need to develop a detailed to do list including all the tasks of the project as well as the role of each partner.

Q12. Are there any additional comments you would like to make regarding the project?

No additional comments were received.

3.1.2 The 3rd Steering Committee meeting (online, 23 April 2021)

The 3rd Steering Committee meeting for the project *DeCAIR* has been evaluated. The survey was conducted amongst those who attended the online meeting that was held on April 23, 2021. A questionnaire was prepared and was delivered to the partners through Google Forms.

Partners submitted their answers during the period from April 27th, 2021 to May 1st, 2021. Out of 19 participants in the meeting (according to the Minutes), 14 responses were received (73,7% participation in the survey), coming from 8 out of 10 partners . This is illustrated in Figure 4.

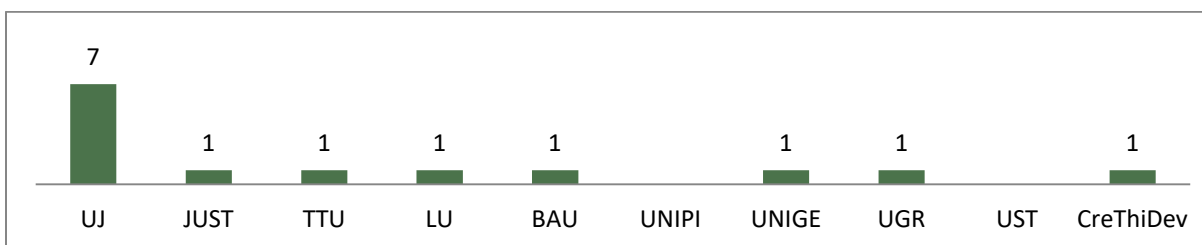


Figure 4. Number of surveys submitted (N=14)

The responses given by the participants are analysed below.

Analysis of scaled questions

The responses received can be found below in Table 6 and in Figures 5 and 6. The questions of the questionnaire were grouped in two sections. All statements were rated well above the 70% threshold of approval.

All participants responded with a positive reply, marking the responses as Agree (16%), and Strongly Agree (85%) overall, for both sections. On average there was 97% agreement with the statements of the 2 sections, suggesting that participants were overall satisfied with the effectiveness of the project meeting.

In the first section of questions, about the Meeting itself, the answers are overwhelmingly Strongly Agree (86%) and Agree (14%) responses. The section received on average 97% rate of approval. The lowest rated statement; with 93% was Q4 “The presentations by the coordinator and the partners of the activities were clear and understandable”. The rest of the statements were rated very high, between 96-100%, showing a high satisfaction with the proceedings of the meeting.

The section about the project after the meeting received an average rate of approval 97%. All of the statements were rated very high. The lowest rated statement, with 93% was Q10 - “The timescales proposed are realistic and feasible”. The other statements were rated between 96-100%, showing a very good opinion of the progress of the project after the meeting.

As we may see from the following graphs, in all questions, the number of responses “Strongly Agree” statements dominates over the “Agree” responses.

The questions that received only Strongly Agree responses are: Q5 - “The timetable was respected” and Q9 - “I understand clearly the role of my organization in this project and what is expected from me for the project”.

One partner provided a comment. The comment was:

- *Some presenters should prepare better for their presentations.*

Table 6. Analysis of responses on 1-5 scale for the 3rd meeting evaluation

		Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
	Section 1. The meeting							
Q1	The meeting was well planned and organised.	14	0%	0%	0%	7%	93%	99%
Q2	The agenda was balanced, focusing on all key aspects of the project.	14	0%	0%	0%	7%	93%	99%
Q3	The participants received all information about the meeting on time.	14	0%	0%	0%	14%	86%	97%
Q4	The presentations by the coordinator and the partners of the activities were clear and understandable.	14	0%	0%	0%	36%	64%	93%
Q5	The timetable was respected.	14	0%	0%	0%	0%	100%	100%
Q6	The communication among the partners was effective and clear.	14	0%	0%	0%	21%	79%	96%
		Avg. 1	0%	0%	0%	14%	86%	97%
	Section2. The project after the meeting							
Q7	I have a clear view of the project aims and objectives.	14	0%	0%	0%	21%	79%	96%
Q8	I understand the Activities and the interactions between them.	14	0%	0%	0%	21%	79%	96%
Q9	I understand clearly the role of my organization in this project and what is expected from me for the project.	14	0%	0%	0%	0%	100%	100%
Q10	The timescales proposed are realistic and feasible.	14	0%	0%	0%	36%	64%	93%

		Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
Q11	The meeting contributed positively to the progress of the project and the scheduling of the next steps.	14	0%	0%	0%	14%	86%	97%
Q12	I feel the project is built on a strong partnership with an efficient administrative and financial coordination.	14	0%	0%	0%	7%	93%	99%
		Avg. 2	0%	0%	0%	17%	83%	97%
		Avg. 1,2	0%	0%	0%	16%	85%	97%

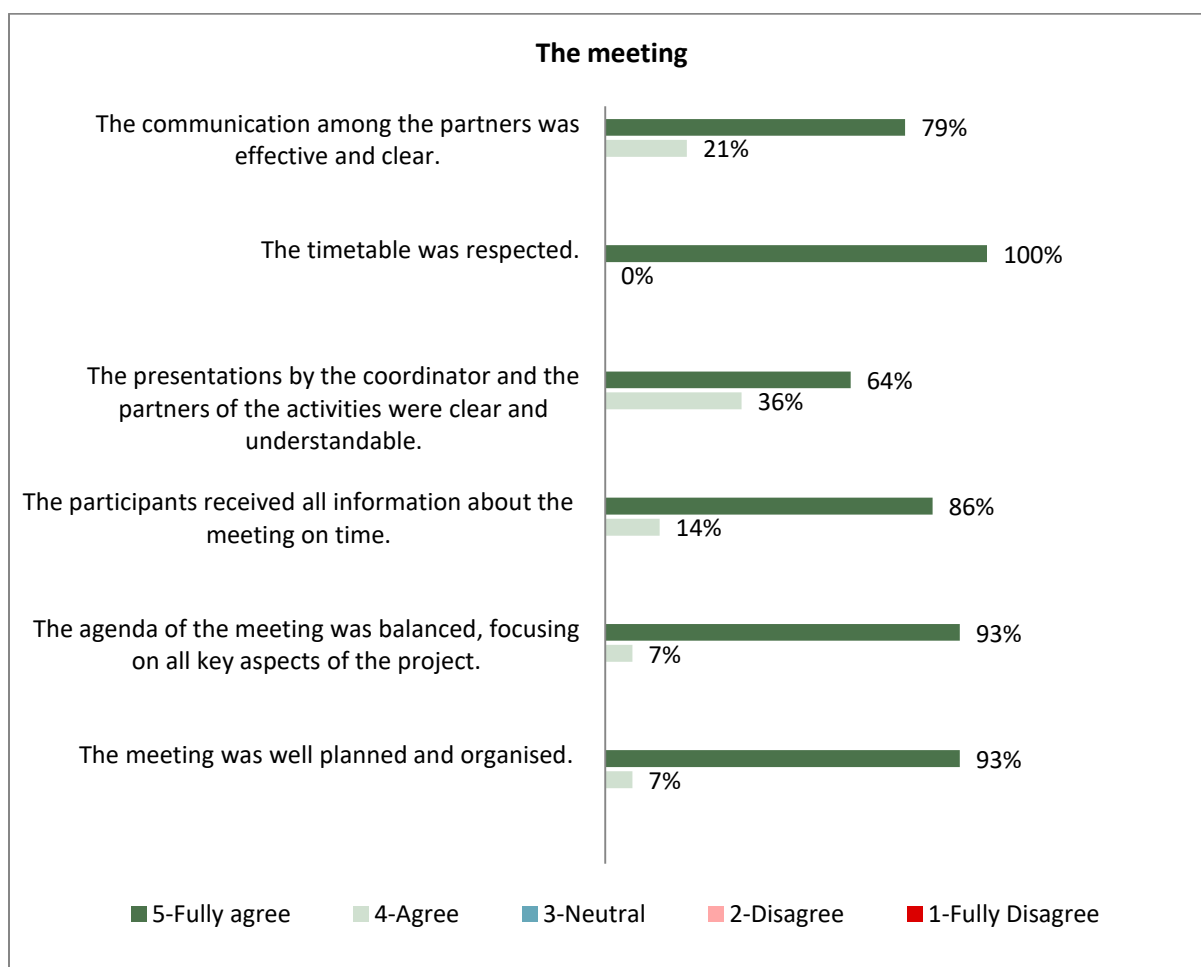


Figure 5: Analysis of responses on 1-5 scale for the project meeting evaluation (“The Meeting”)

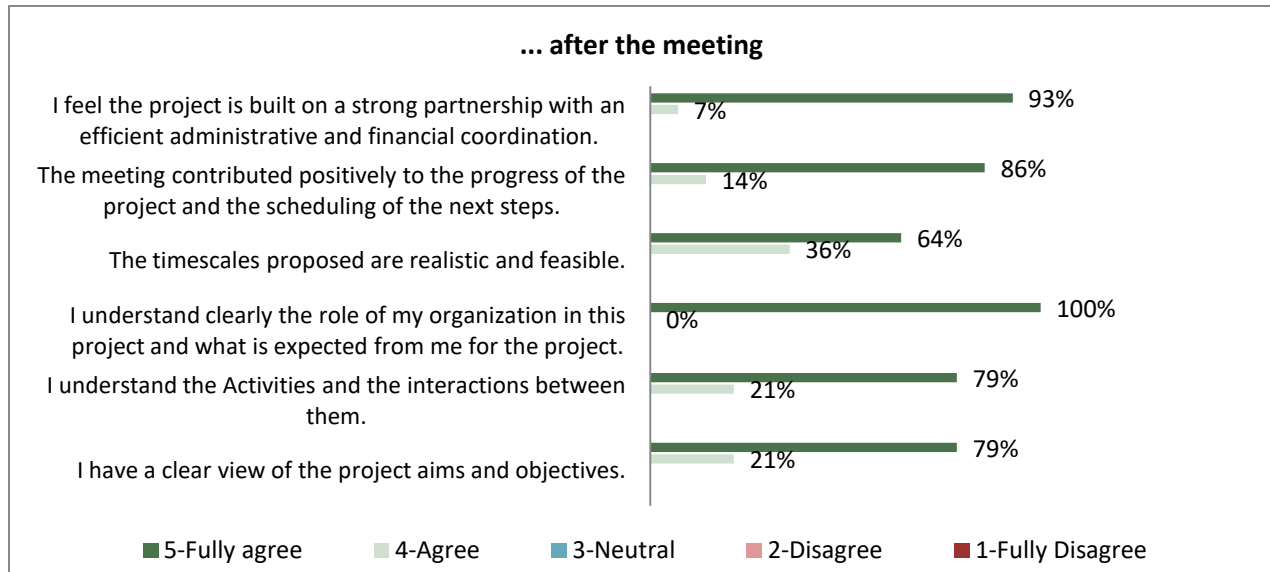


Figure 6: Analysis of responses on 1-5 scale for the project meeting evaluation (“... after the Meeting”)

Open ended questions

In this section of the questionnaire, we asked partners about their perception of the effectiveness of the meeting to solve problems and questions, as well future obstacles. It must be noted that the following analysis concerns specific responses received, since most questions were either remained unanswered or received a general response.

Q13. The meeting enabled me to clear up questions I previously had on:

The (specific) answers in this question concern the further steps regarding the tasks of the project and their implementation as well as the courses that will be updated in the near future.

Q14. The following element is still a major concern to me:

One comment received, expressing the opinion that some work packages need to conclude their plans soon.

Q15. Suggestions and aspects to be improved:

The suggestion received stated the Work package leaders should manage their work packages diligently.

Q16. Are there any additional comments you would like to make regarding the project?

No additional comments were received.

3.1.3 The 4th Steering Committee meeting (online, 21 May 2021)

The 4th Steering Committee meeting evaluation was implemented after the meeting that was held online on May 21st, 2021. A questionnaire was prepared and was delivered to the partners through Google Forms.

Partners submitted their answers between May 21st and 23rd. Out of 19 participants in the meeting (according to the Minutes), 8 responses were received (42% participation in the survey), coming from 6 out of 10 partners. This is illustrated in Figure 7.

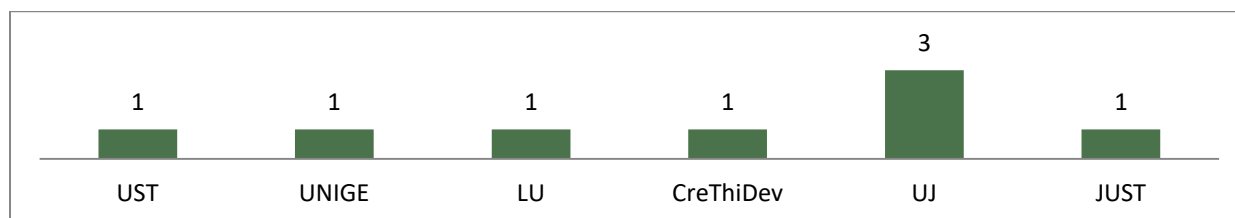


Figure 7. Number of surveys submitted (N=8)

The responses given by the participants are analysed below.

Analysis of scaled questions

The responses received can be found below in Table 7 and in Figures 8 and 9. Most participants responded with a positive reply, marking the responses as Agree (28%), and Strongly Agree (68%) overall, for both sections. On average there was 93% agreement with the statements of the 2 sections, well above the appointed 70% threshold, suggesting that participants were overall satisfied with the effectiveness of the project meeting.

In the first section of questions, about the Meeting itself, the average agreement was 95% with answers mostly at Strongly Agree (75%) and Agree (25%). The lowest rating received was 93% (“Q4 - The presentations by the partners were clear and understandable”) and the highest 98% (“Q1- The meeting was well planned and organized”).

In the second section of questions about the perception of the Project after the meeting, the average agreement was 91% with response rates mostly at Strongly Agree (63%) and Agree (29%), while a percentage (8%) is Neutral. The lowest rating received was 85% (“Q10 - The timescales proposed are realistic and feasible) and the highest 95% (Q11 - The meeting contributed positively to the progress of the project and the scheduling of the next steps).

As we can see from the graphs, in almost all statements, the number of responses “Strongly Agree” statement dominate over the “Agree” responses. The only exception is for Q10 (“The timescales proposed are realistic and feasible”), where the Strongly Agree responses received 38% while the Agree responses 50%.

The four statements that received one Neutral response are: Q7 “I have a clear view of the project aims and

objectives”, Q9 “I understand the Activities and the interactions between them”, Q10 “The timescales proposed are realistic and feasible” and Q11 “The meeting contributed positively to the progress of the project and the scheduling of the next steps”.

Two partners provided comments in the first section about the Meeting itself. The comments were:

- *In order to avoid any overlapping in the effort to be deployed, the new syllabus to be developed in WP2 and the syllabus of the courses to be updated in WP5 must run simultaneously since some courses will be common to both activities.*
- *More consideration is needed for WP6, similar to other packages.*

Table 7. Analysis of responses on 1-5 scale for the 4th meeting evaluation

		Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
	Section 1. The meeting							
Q1	The meeting was well planned and organised.	8	0%	0%	0%	13%	88%	98%
Q2	The agenda was balanced, focusing on all key aspects of the project.	8	0%	0%	0%	25%	75%	95%
Q3	The participants received all information about the meeting on time.	8	0%	0%	0%	25%	75%	95%
Q4	The presentations by the coordinator and the partners of the activities were clear and understandable.	8	0%	0%	0%	38%	63%	93%
Q5	The timetable was respected.	8	0%	0%	0%	25%	75%	95%
Q6	The communication among the partners was effective and clear.	8	0%	0%	0%	25%	75%	95%
		Avg. 1	0%	0%	0%	25%	75%	95%
	Section2. The project after the meeting							
Q7	I have a clear view of the project aims and objectives.	8	0%	0%	13%	25%	63%	90%
Q8	I understand the Activities and the interactions between them.	8	0%	0%	13%	38%	50%	88%
Q9	I understand clearly the role of my organization in this project and what is expected from me for the project.	8	0%	0%	0%	38%	63%	93%

		Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
Q10	The timescales proposed are realistic and feasible.	8	0%	0%	13%	50%	38%	85%
Q11	The meeting contributed positively to the progress of the project and the scheduling of the next steps.	8	0%	0%	13%	0%	88%	95%
Q12	I feel the project is built on a strong partnership with an efficient administrative and financial coordination.	8	0%	0%	0%	38%	63%	93%
		Avg. 2	0%	0%	8%	29%	63%	91%
		Avg. 1,2	0%	0%	4%	28%	68%	93%

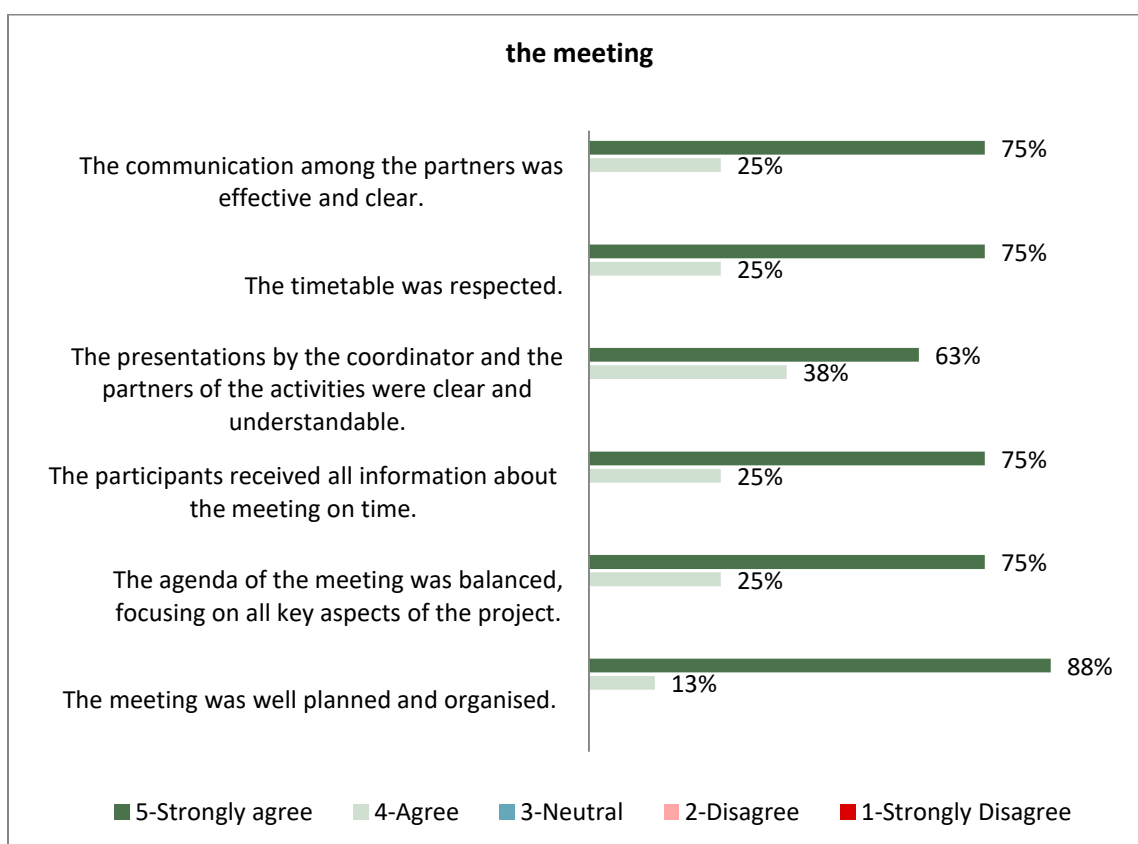


Figure 8: Analysis of responses on 1-5 scale for the 4th meeting evaluation (“The Meeting”)

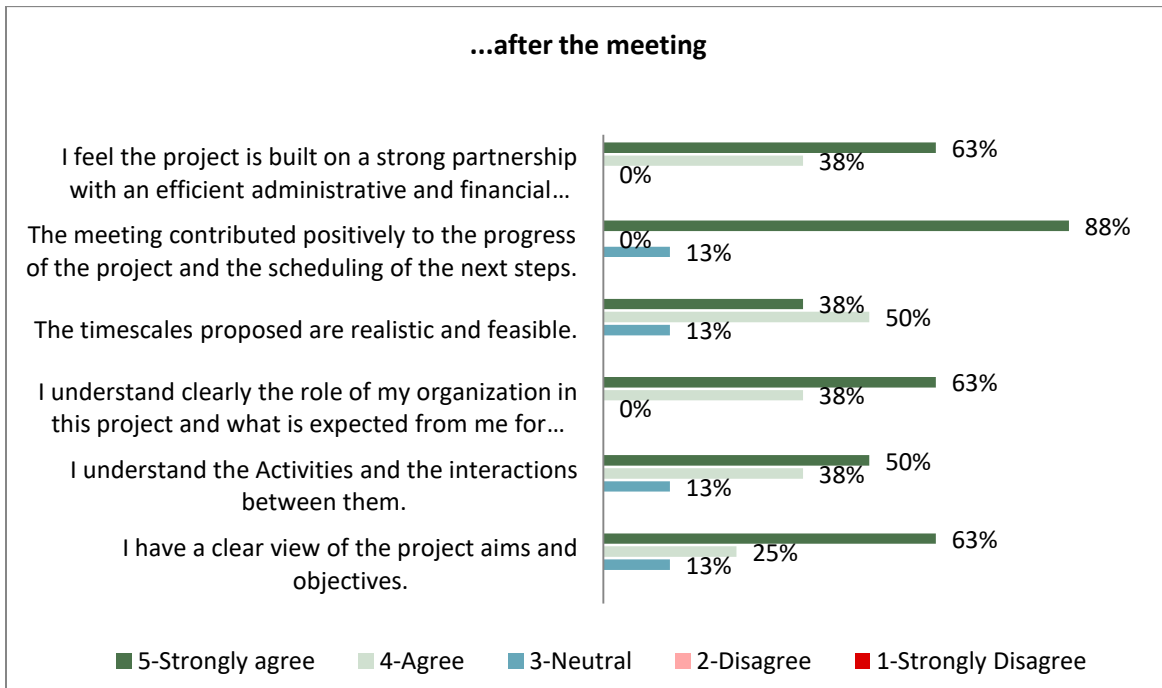


Figure 9: Analysis of responses on 1-5 scale for the 4th meeting evaluation (“... after the Meeting”)

Open ended questions

In this section of the questionnaire, we asked partners about their perception of the effectiveness of the meeting to solve problems and questions, as well future obstacles. The open-ended questions included the following:

Q13. The meeting enabled me to clear up questions I previously had on:

The two responses received in this question concern the future schedules as well as the tendering process.

Q14. The following element is still a major concern to me:

One participant responded, stated that the equipment should be finalised as soon as possible.

Q15. Suggestions and aspects to be improved:

No suggestions were received.

Q16. Are there any additional comments you would like to make regarding the project?

One participant made the following comment:

- *Time and date of the SC meetings: I made it clear before that Friday is not a good time for me due to several commitments, and I think after several meetings on Fridays it is time to change. Also we did not receive any money yet... we need part of the staff money (people working with me in this project expect to get money by the end of each work package or every month, or at least every semester).*

3.1.4 The 7th Steering Committee meeting (online, 17 September 2021)

The 7th Steering Committee meeting evaluation was implemented after the meeting that was held online on September 17th, 2021. A questionnaire was prepared and was delivered to the partners through Google Forms.

Partners submitted their answers between September 17th and 18th. Out of 15 participants in the meeting (according to the Minutes), 9 responses were received (60% participation in the survey), coming from 7 out of 10 partners. This is illustrated in Figure 10.

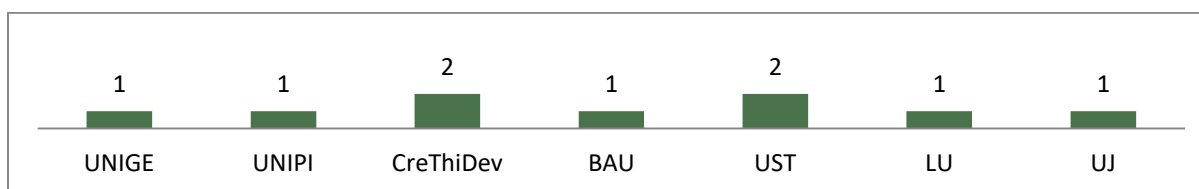


Figure 10. Number of surveys submitted (N=9)

The responses given by the participants are analysed below.

Analysis of scaled questions

The responses received can be found below in Table 8 and in Figures 11 and 12. Participants responded with a positive reply, marking the responses as Agree (13%), and Strongly Agree (87%) overall, for both sections. On average there was 97% agreement with the statements of the 2 sections, well above the appointed 70% threshold, suggesting that participants were overall satisfied with the effectiveness of the project meeting.

In the first section of questions, about the Meeting itself, the average agreement was 99% with answers mostly at Strongly Agree (93%) and Agree (7%) responses. All statements received 100% response rates, except from Q4 “The presentations by the coordinator and the partners of the activities were clear and understandable” and Q6 “The communication among the partners was effective and clear”, where the response rate is 96% in both statements.

In the second section of questions about the perception of the Project after the meeting, the average agreement was 97% with response rates mostly at Strongly Agree (85%) and Agree (15%). All statements received similar response rates, ranging from 93-98%. One partner provided a comment in this section, expressing the opinion that it would be better to conduct one Steering Committee meeting every two months and not too often.

As we can see from the graphs, in all statements, the number of responses “Strongly Agree” statement dominate over the “Agree” responses. The four statements that received 100% response rate are: Q1 “The meeting was well planned and organised”, Q2 “The agenda of the meeting was balanced, focusing on all key aspects of the project”, Q3 “The participants received all information about the meeting on time” and Q5 “The timetable was respected”.

Table 8. Analysis of responses on 1-5 scale for the 7th meeting evaluation

		Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
	Section 1. The meeting							
Q1	The meeting was well planned and organised.	9	0%	0%	0%	0%	100%	100%
Q2	The agenda was balanced, focusing on all key aspects of the project.	9	0%	0%	0%	0%	100%	100%
Q3	The participants received all information about the meeting on time.	9	0%	0%	0%	0%	100%	100%
Q4	The presentations by the coordinator and the partners of the activities were clear and understandable.	9	0%	0%	0%	22%	78%	96%
Q5	The timetable was respected.	9	0%	0%	0%	0%	100%	100%
Q6	The communication among the partners was effective and clear.	9	0%	0%	0%	22%	78%	96%
		Avg. 1	0%	0%	0%	7%	93%	99%
	Section2. The project after the meeting							
Q7	I have a clear view of the project aims and objectives.	9	0%	0%	0%	22%	78%	96%
Q8	I understand the Activities and the interactions between them.	9	0%	0%	0%	33%	67%	93%
Q9	I understand clearly the role of my organization in this project and what is expected from me for the project.	9	0%	0%	0%	11%	89%	98%
Q10	The timescales proposed are realistic and feasible.	9	0%	0%	0%	22%	78%	96%

		Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
Q11	The meeting contributed positively to the progress of the project and the scheduling of the next steps.	9	0%	0%	0%	11%	89%	98%
Q12	I feel the project is built on a strong partnership with an efficient administrative and financial coordination.	9	0%	0%	0%	11%	89%	98%
		Avg. 2	0%	0%	0%	15%	85%	97%
		Avg. 1,2	0%	0%	0%	13%	87%	97%

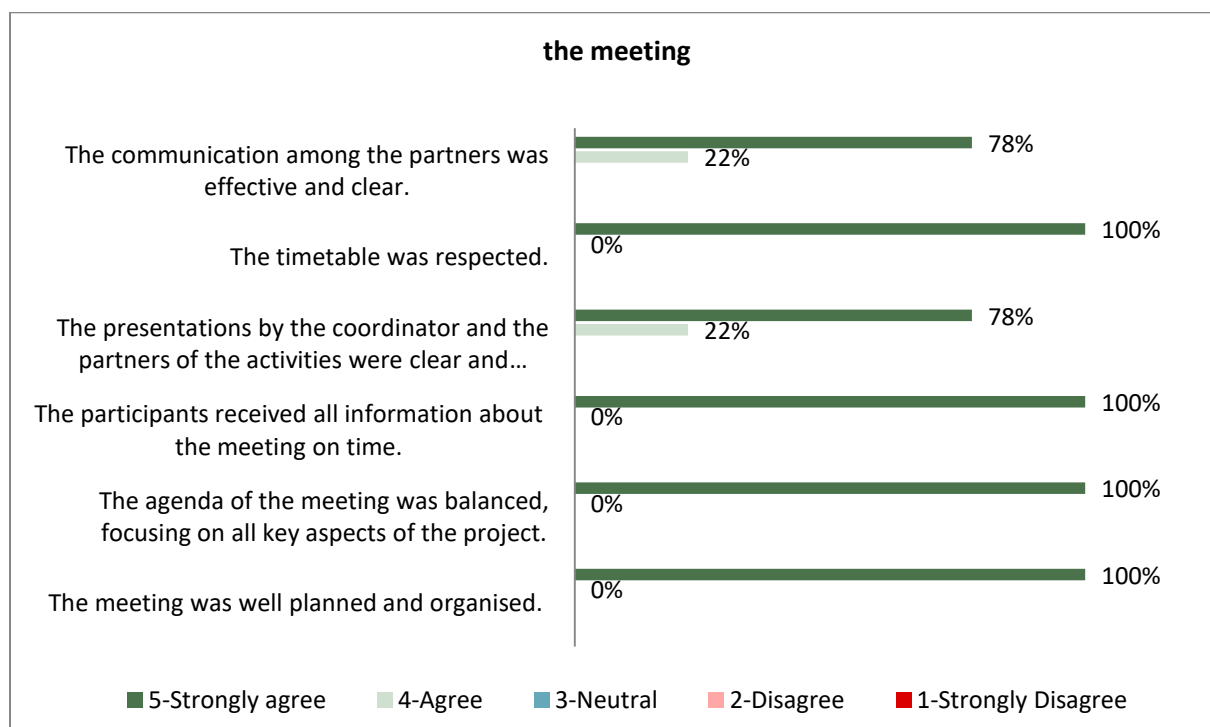


Figure 11: Analysis of responses on 1-5 scale for the 7th meeting evaluation (“The Meeting”)

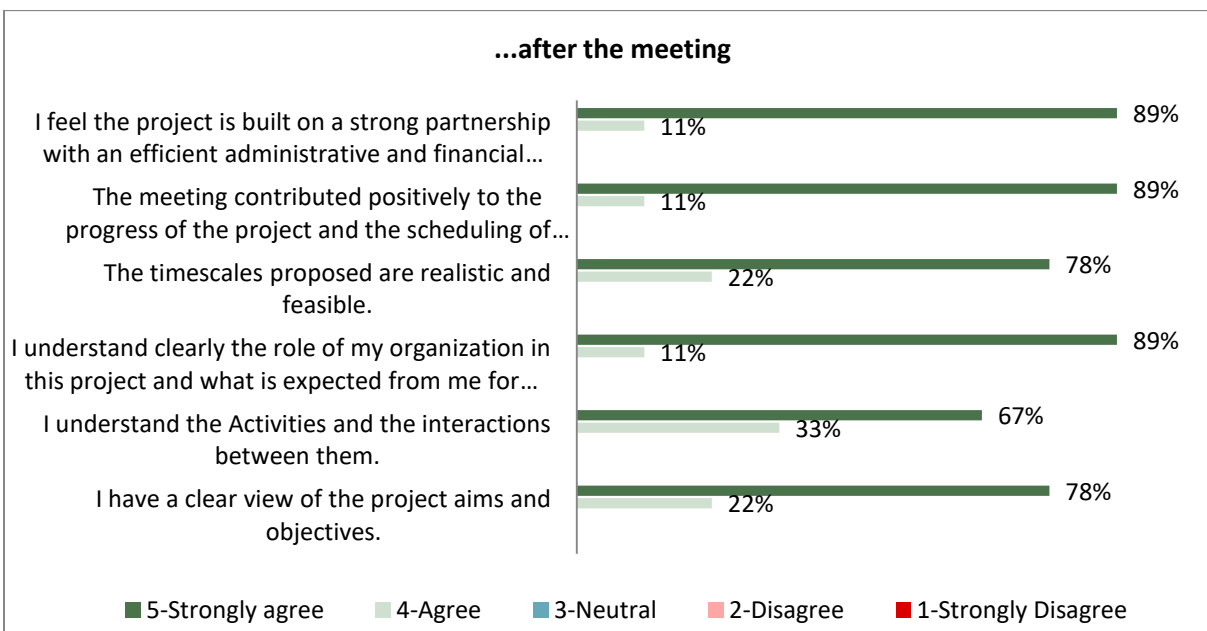


Figure 12: Analysis of responses on 1-5 scale for the 7th meeting evaluation (“... after the Meeting”)

Open ended questions

In this section of the questionnaire, we asked partners about their perception of the effectiveness of the meeting to solve problems and questions, as well future obstacles. The open-ended questions included the following:

Q13. The meeting enabled me to clear up questions I previously had on:

The one response received in this question stated that the meeting helped in the better understanding of the development of the syllabus.

Q14. The following element is still a major concern to me:

No responses were received on this question.

Q15. Suggestions and aspects to be improved:

The suggestion coming from one partner is to conduct some training courses in the host universities in order to create more synergies between the partners.

Q16. Are there any additional comments you would like to make regarding the project?

No further comments were received.

3.1.5 The 9th Steering Committee meeting (Amman, Jordan, 27 November 2021)

The 9th Steering Committee meeting was held on November 27th, 2021 in Amman, Jordan. It was the first face to face meeting from the beginning of the project. Responses were collected via Google Forms, between November 27th and 30th. 18 responses were collected coming from 9 out of 10 partners according to the Minutes (100% participation). This is illustrated in Figure 13.

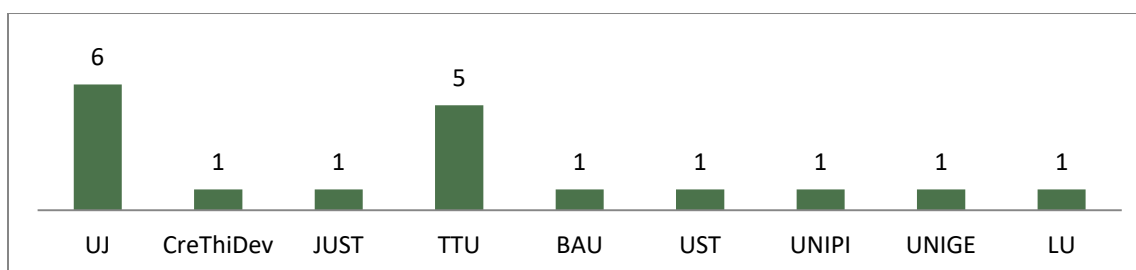


Figure 13. Number of surveys submitted (N=18)

The responses given by the participants are analysed below.

Analysis of scaled questions

From the 18 participants in the meeting, 4 participants were present virtually. Q8-11 addressed only to participants who were participating in the face to face meeting.

The responses received can be found below in Table 9 and in Figures 14 and 15. Participants responded with a positive reply, marking the responses as Agree (12%), and Strongly Agree (74%) overall, for both sections. On average there was 90% agreement with the statements of the 2 sections, well above the appointed 70% threshold, suggesting that participants were overall satisfied with the effectiveness of the project meeting.

In the first section of questions, about the Meeting itself, the average agreement was 91% with answers mostly at Strongly Agree (73%) and Agree (11%) responses, while a percentage (10%) is Neutral and 5% is Disagree. The lowest rating received was 81% (“Q8 - The conference room and its facilities facilitated the work during the meeting”) and the highest 96% (“Q6 - The timetable was respected”).

In the second section of questions about the perception of the Project after the meeting, the average agreement was 89% with response rates mostly at Strongly Agree (69%) and Agree (20%), while a percentage (11%) is Disagree. The lowest rating received was 87% (“Q16- I have a clear view of the deadlines for the upcoming months”) and the highest 93% (“Q12- I have a clear view of the project aims and objectives”).

As we can see from the graphs, in all statements, the number of responses “Strongly Agree” statement dominate over the “Agree” responses. All statements received one to two Disagree responses except: Q5 “All participants had the opportunity to express their observations/ comments/ questions about the topics”, Q6 “The timetable was respected”, Q7 “The meeting served its purpose” Q10 “Access to the venue of the meeting was easy” and Q11 “Catering and meals were satisfactory”.

Table 9. Analysis of responses on 1-5 scale for the 9th meeting evaluation

		Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
	Section 1. The meeting							
Q1	The meeting was well planned and organised.	18	0%	6%	6%	6%	83%	93%
Q2	The agenda was balanced, focusing on all key aspects of the project.	18	0%	6%	6%	6%	83%	93%
Q3	The participants received all information about the meeting on time.	18	0%	6%	6%	6%	83%	93%
Q4	The presentations made by the partners were clear and understandable.	18	0%	11%	0%	22%	67%	89%
Q5	All participants had the opportunity to express their observations/ comments/ questions about the topics.	18	0%	0%	11%	11%	78%	93%
Q6	The timetable was respected.	18	0%	0%	11%	0%	89%	96%
Q7	The meeting served its purpose.	18	0%	0%	11%	6%	83%	94%
Q8	The conference room and its facilities facilitated the work during the meeting.	14	0%	14%	7%	36%	43%	81%
Q9	The overnight accommodation was satisfactory.	12	0%	17%	8%	8%	67%	85%
Q10	Access to the venue of the meeting was easy.	13	0%	0%	15%	15%	69%	91%
Q11	Catering and meals were satisfactory.	13	0%	0%	31%	8%	62%	86%
		Avg. 1	0%	5%	10%	11%	73%	91%
	Section2. The project after the meeting							
Q12	I have a clear view of the project aims and objectives.	18	0%	11%	0%	0%	89%	93%
Q13	I understand clearly the administrative structure of the project.	18	0%	11%	0%	11%	78%	91%
Q14	The information given helped me to better understand the activities of the project and the interactions and links between them.	18	0%	11%	0%	11%	78%	91%
Q15	I have better understanding of the role of my institution/organization in this project and what is expected from me for the upcoming	18	0%	11%	0%	17%	72%	90%

		Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
	months.							
Q16	I have a clear view of the deadlines for the upcoming months.	18	0%	11%	0%	33%	56%	87%
Q17	The timescales proposed are realistic and feasible.	18	0%	11%	0%	22%	67%	89%
Q18	The meeting contributed positively to the progress of the project and the scheduling of the next steps.	18	0%	11%	0%	6%	83%	92%
		Avg. 2	0%	11%	0%	20%	69%	89%
		Avg. 1,2	0%	8%	6%	12%	74%	90%

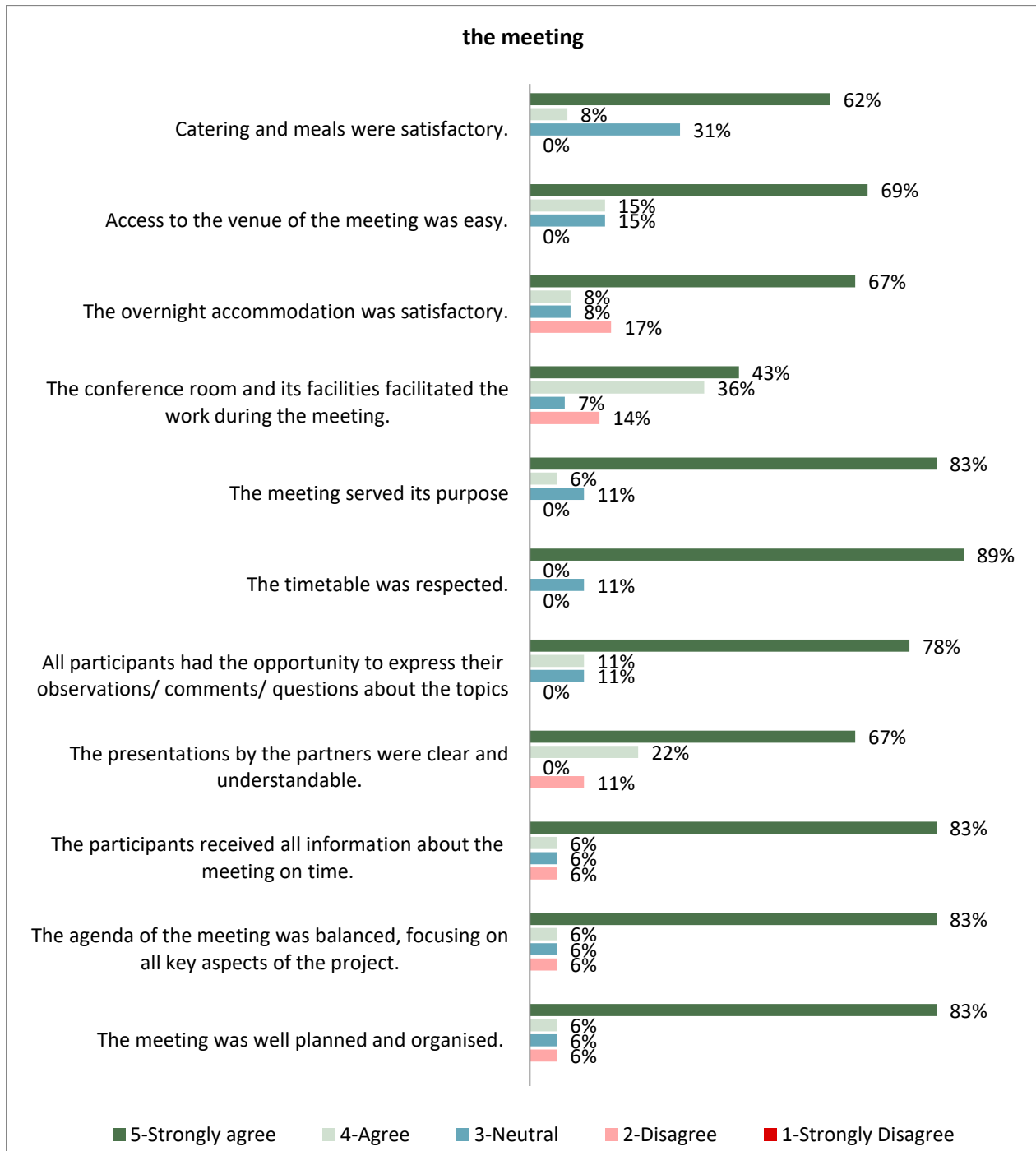


Figure 14: Analysis of responses on 1-5 scale for the 9th meeting evaluation (“The Meeting”)

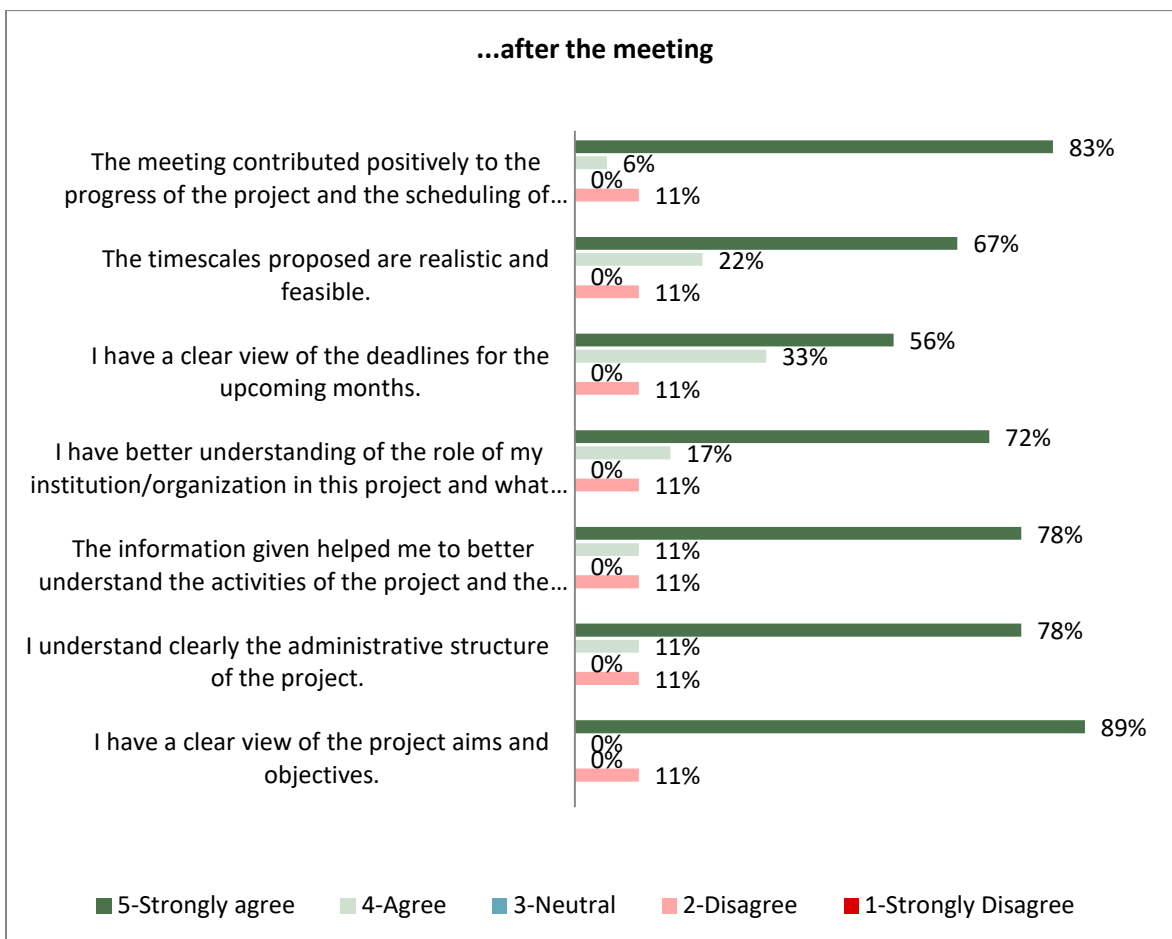


Figure 15: Analysis of responses on 1-5 scale for the 9th meeting evaluation (“... after the Meeting”)

Open ended question

The open-ended question included the following:

Q 19. Please provide feedback of any issues you might have and how these can be improved:

In the open questions section of the questionnaire, four participants offered their views, providing feedback of issues that could be improved in the following meetings. Two participants stated that we should pay more attention on the sound system in the meeting room, since it was no good. One participant continued saying that the meeting of the focus group should not be in the same room with the other group, because it was difficult to hear the speakers from Teams. Finally, one participant expressed the opinion that the meeting contributed to the successful implementation of the project and the wish face to face meetings to be continued.

3.2 Event Evaluation

All Events/workshops undergo an internal evaluation process by the participants. After the end of the event, each participant is asked to rate the event in a questionnaire (using hardcopies or Google Forms).

The standard questionnaire used for these surveys consists of 7 closed questions as well as an open question where participants are asked to provide their suggestions regarding improvements that should be implemented. Room for additional suggestions or feedback was also made available.

At the beginning of the questionnaire respondents are asked to declare their organisation, for the purpose of ascertaining partner participation.

Nevertheless, some questions may be adjusted to the type, topic and scope of each event.

3.2.1 Genoa events (online, 30 April 2021 & 7 May 2021)

In the framework of the WP2.1 two virtual workshop events have been organized that involved representatives from all partners. In these events representatives from all partners gathered to discuss the findings of the survey conducted in WP1. The activities conducted are specified to achieve one of the major specific objectives of the project which is establishing the new master program in UJ and the new B.Sc. program in TTU that are specialized in AI and robotics. Partners in the consortium worked together to specify the courses and labs to be included in the curricula of the new programs to match the AI and robotics needs in JO.

1st Genoa online event, 30 April 2021

In the first event that was held on April 30, 2021, 15 responses were received. Responses were collected via Google Forms, between April 30th and May 5th 2021.

The participation per partner is illustrated in Figure 16 below.

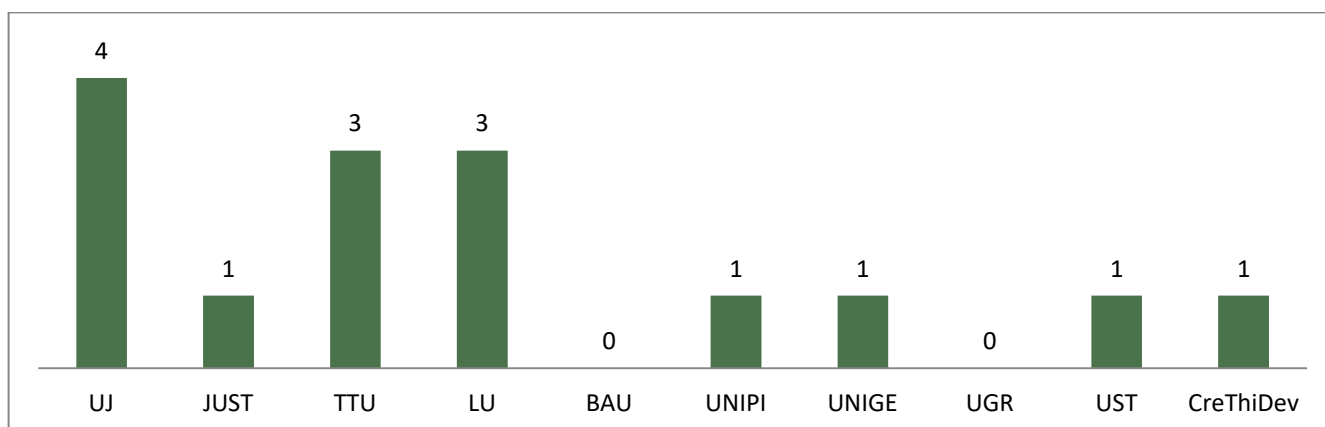


Figure 16. Number of surveys submitted (N=15)

Analysis of scaled questions

The responses received can be found below in Figure 17 and Table 10. The majority of participants responded with a positive reply, marking the responses as Agree (18%), and Strongly Agree (79%), well above the appointed 70% threshold, suggesting that participants were overall satisfied with the effectiveness of the event.

As we can see from the graphs, the number of responses “Strongly Agree” and “Agree” statement dominate over the other responses. Only three questions received a “Neutral” response by one participant. These questions are: “The objectives of the event were clearly defined and met”, “The length of the event was sufficient” and “The event met my expectations”.

No question has received negative response.

Table 10. Analysis of responses on 1-5 scale for the workshop event

		Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
	Overall Event experience							
Q1	The event was well planned and organised.	15	0%	0%	0%	13%	87%	97%
Q2	The objectives of the event were clearly defined and met.	15	0%	0%	7%	13%	80%	95%
Q3	The information presented was well organised.	15	0%	0%	0%	33%	67%	93%
Q4	The methodology used was effective.	15	0%	0%	0%	27%	73%	95%
Q5	The length of the event was sufficient.	15	0%	0%	7%	13%	80%	95%
Q6	The event was useful and had an added value.	15	0%	0%	0%	13%	87%	97%
Q7	The event met my expectations.	15	0%	0%	7%	13%	80%	95%
		Avg.	0%	0%	3%	18%	79%	95%

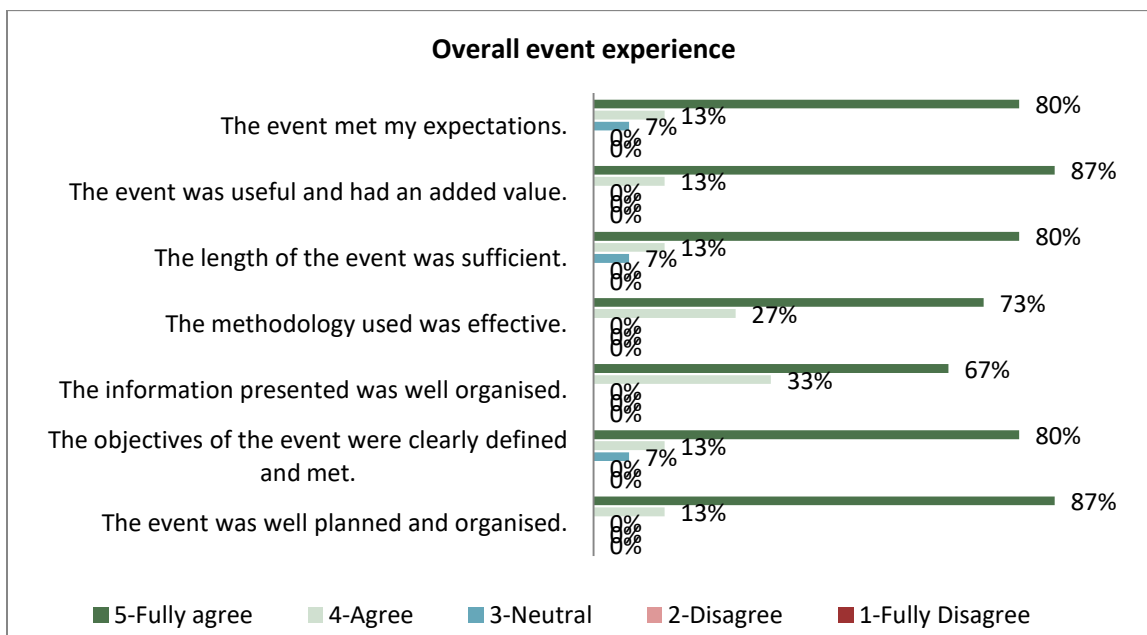


Figure 17: Analysis of responses on 1-5 scale for the Overall event experience

The additional comments that have been received were very positive. Some of them are the following:

- *We went through fruitful discussions.*
- *Great effort. Thanks all.*
- *Great event and a very useful discussion.*
- *I have seen a good plan of courses.*

No suggestions regarding aspects of the event that could be improved were received.

2nd Genoa online event, 7 May 2021

In the second event that was held on May 7, 2021, 9 responses were received. Responses were collected via Google Forms, on the same date of the event. The participation per partner is illustrated in Figure 18 below.

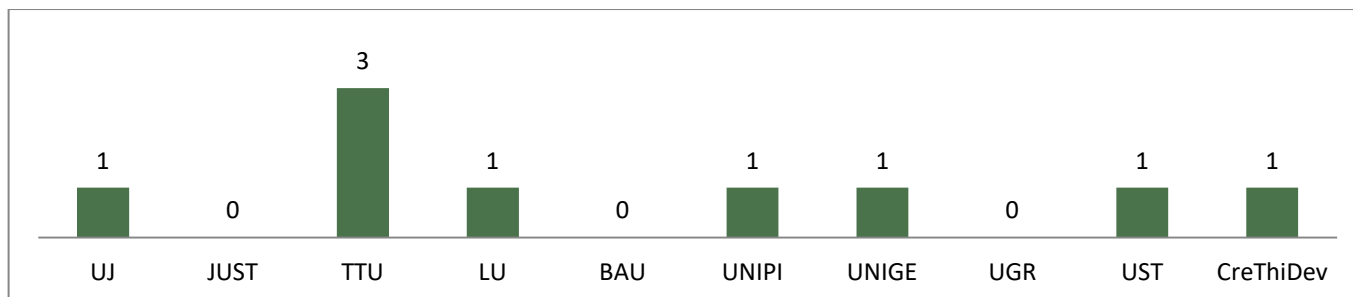


Figure 18. Number of surveys submitted (N=9)

Analysis of scaled questions

The responses received can be found below in Figure 19 and Table 11. All participants responded with a positive reply, marking the responses as Agree (22%), and Strongly Agree (78%), well above the appointed 70% threshold, suggesting that participants were overall satisfied with the effectiveness of the event.

As we can see from the graphs, the number of responses “Strongly Agree” statement dominate over the “Agree” responses. No question has received negative or neutral response.

Table 11. Analysis of responses on 1-5 scale for the workshop event

		Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
	Overall Event experience							
Q1	The event was well planned and organised.	9	0%	0%	0%	22%	78%	96%
Q2	The objectives of the event were clearly defined and met.	9	0%	0%	0%	22%	78%	96%
Q3	The information presented was well organised.	9	0%	0%	0%	22%	78%	96%
Q4	The methodology used was effective.	9	0%	0%	0%	33%	67%	93%
Q5	The length of the event was sufficient.	9	0%	0%	0%	11%	89%	98%
Q6	The event was useful and had an added value.	9	0%	0%	0%	22%	78%	96%
Q7	The event met my expectations.	9	0%	0%	0%	22%	78%	96%
		Avg.	0%	0%	0%	22%	78%	96%

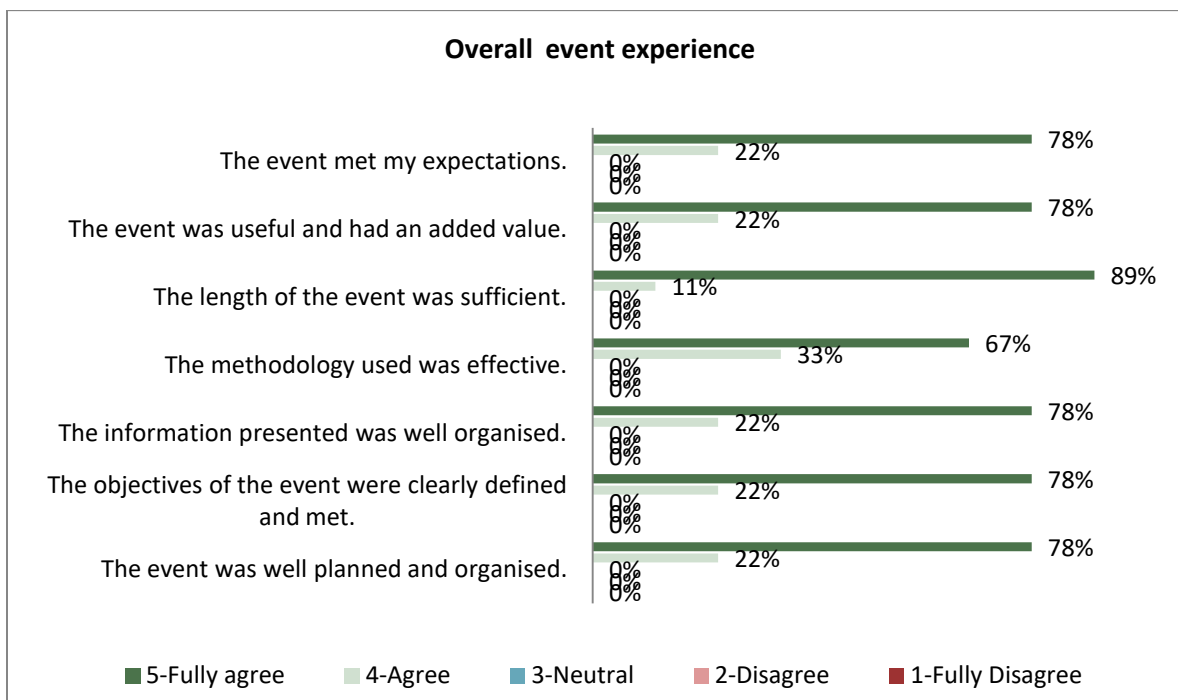


Figure 19: Analysis of responses on 1-5 scale for the Overall event experience

The additional comments that have been received were very positive, since partners stated that the event was excellent organized.

The suggestion about aspects that could be improved, coming from one partner, is that it is crucial all involved partners to be present in such events. As he/she stated some partners were not represented in this event and that makes work difficult for the rest team.

3.2.2 Event for presentation of courses to be added/modified in existing MSc programs (online, 11 June 2021)

In the framework of WP5.1 a meeting event was held on Friday 11/6/2021 where each JO and LB partner presented a proposal for courses to be developed/added in the current MSc programs. Totally four proposals were presented and discussed. The proposals will be assembled in one document entitled, “Developing syllabi and content for added/ modified courses in existing master programs in universities of partner countries”.

17 responses were received. Responses were collected via Google Forms, between June 11th and June 16th 2021. The participation is illustrated in Figure 20.

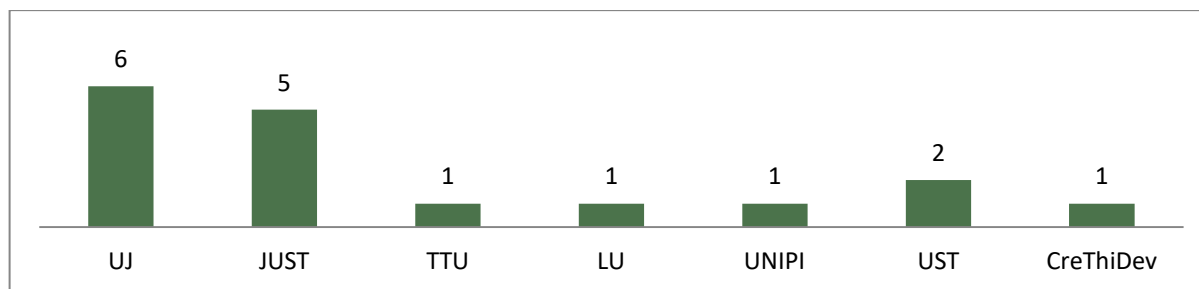


Figure 20. Number of surveys submitted (N=17)

Analysis of scaled questions

The responses received can be found below in Figure 21 and Table 12. The majority of participants responded with a positive reply, marking the responses as Agree (33%), and Strongly Agree (61%), well above the appointed 70% threshold, suggesting that participants were overall satisfied with the effectiveness of the event.

Only two questions received a “Neutral” response. These questions are: “The length of the event was sufficient” and “The event was useful and had an added value for the progress of the project”.

No question has received negative response.

Table 12. Analysis of responses on 1-5 scale for the meeting event

		Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
	Overall Event experience							
Q1	The event was well planned and organised.	17	0%	0%	0%	35%	65%	93%
Q2	The objectives of the event were clearly defined and met.	17	0%	0%	0%	41%	59%	92%
Q3	The information presented was well organised.	17	0%	0%	0%	59%	41%	88%
Q4	The length of the event was sufficient.	17	0%	0%	6%	12%	82%	95%
Q5	The event was useful and had an added value for the progress of the project.	17	0%	0%	24%	18%	59%	87%
	Avg.		0%	0%	6%	33%	61%	91%

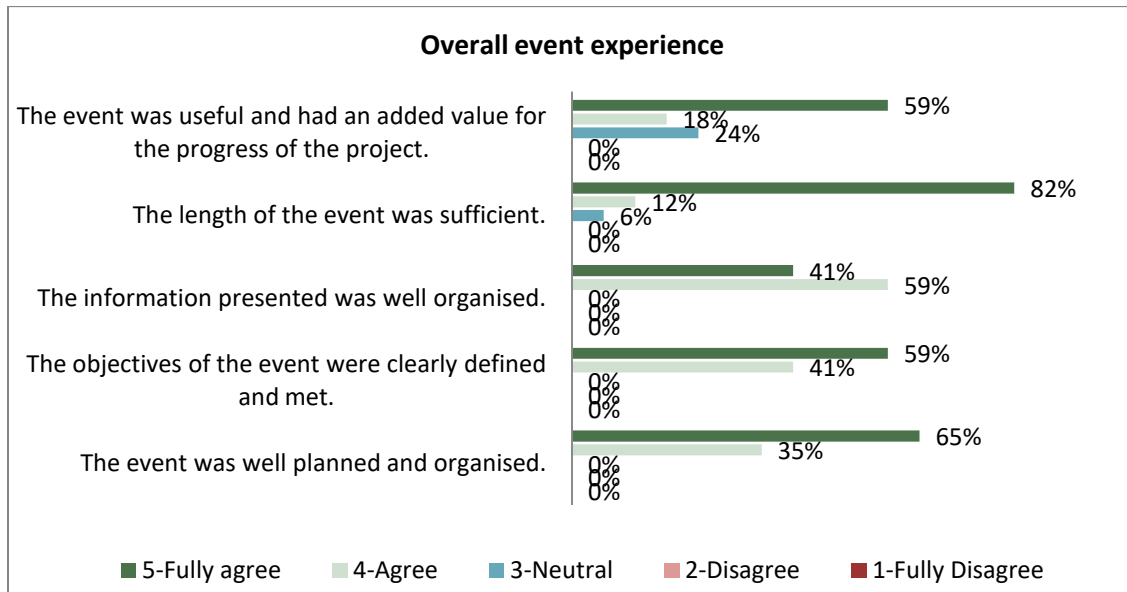


Figure 21: Analysis of responses on 1-5 scale for the Overall event experience

No additional comments that have been received.

3.3 Training evaluation

All Training workshops/seminars undergo an evaluation process by the participants/trainees. After the end of the training, each participant is asked to rate several aspects of the training in a questionnaire (using hardcopies or Google Forms). The questionnaires include closed questions as well as open-ended questions for remarks, comments and suggestions.

The questionnaire used consists of 4 sections. The 1st section (Overall training experience) contains 9 closed questions (in case of online training the questions are 8) on 5-point Likert scale, where respondents have to give a grade between 1 and 5, with 5 being the highest (Strongly Agree) and 1 the lowest (Strongly Disagree). The 2nd section (Opinion of the Trainers) contains 4 closed questions on 5-point Likert scale, where respondents have to give a grade between 1 and 5, with 5 being the highest (Strongly Agree) and 1 the lowest (Strongly Disagree). The 3rd section contains one closed Yes/No question asking if the training was appropriate for the level of experience of the participant. The 4th section contains 3 open-ended questions regarding: Topics that were not or insufficiently covered – Topics not relevant to the training – Best part of the training.

Room for suggestions or comments for making the program more effective was also made available.

At the beginning of the questionnaire respondents are asked to declare their organisation, for the purpose of ascertaining partner participation.

3.3.1 PYTHON course (online, 26/7/2021 - 4/8/2021)

A questionnaire was prepared and was delivered to all the participants through Google Forms after the PYTHON training that was held online between July 26, 2021 and August 4, 2021 by the University of Jordan (UJ) in the framework of WP7.1.

The course was a 40-hour course and it consisted of 15 hours of contact and 25 hours of self work. This was a basic course that many later AI courses would build on it in the framework of the DeCAIR project.

A total of 154 persons attended some of the course's training sessions. However, only 24 persons have met the successful participation criteria (attendance at least in 3 sessions).

Responses were collected via Google Forms, between August 21st and September 13th 2021. Out of 24 participants, 12 responses were collected (50% participation in the survey). This is illustrated in Figure 22.

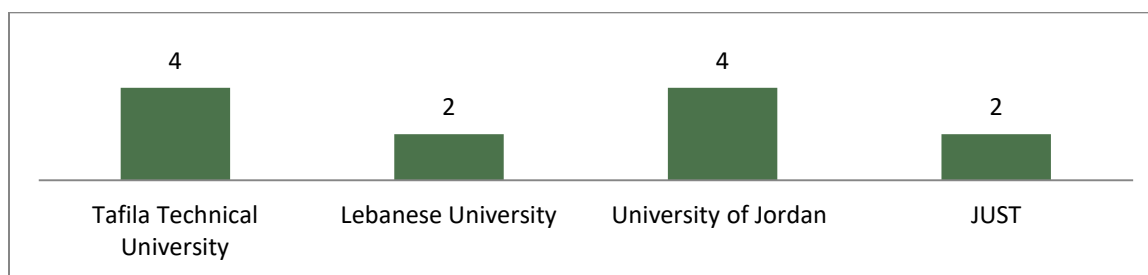


Figure 22. Number of surveys submitted (N=12)

The positions of the participants according to their responses are the following: 1 Associate Professor, 4 Assistant Professors, 2 Professors, 1 Student, 2 Lab Engineer, 2 Faculty members

The responses given by the participants are analysed below.

Analysis of scaled questions

The responses received can be found below in Figures 23, 24 and 25 and Table 13. Most participants responded with a positive reply, marking the responses as Agree (42%), and Strongly Agree (32%) overall, for both sections. On average there was 80% agreement with the statements of the 2 sections, well above the appointed 70% threshold, suggesting that participants were overall satisfied with the effectiveness of the training webinar and the trainers.

In the first section of questions, in the overall experience about training, the majority of the answers are Fully Agree (38%) and Agree (43%). A percentage (9%) is Neutral, 2% Disagree and 8% Strongly Disagree.

In the second section of questions about the participants' opinion of the trainers/presenters, the response rates

are mostly Fully Agree (67%) and Agree (18%) responses, while a percentage (7%) is Neutral. Also a 2% percentage Disagree and 8% Strongly Disagree.

Finally, all participants agreed that the training was appropriate for their level of experience.

Table 13. Analysis of responses on 1-5 scale for the Training workshop

	Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
Section 1. Overall Training experience							
The training was well planned and organized.	12	8%	0%	0%	42%	50%	85%
The chosen teleconference platform was suitable.	12	8%	0%	0%	33%	58%	87%
The objectives of the training were clearly defined and met.	12	8%	0%	0%	67%	25%	80%
The training content was well organised.	12	8%	0%	8%	50%	33%	80%
The topics of the training were clear and easy to follow.	12	8%	0%	17%	50%	25%	77%
The length of training was sufficient.	12	8%	8%	8%	50%	25%	75%
The training enhanced my understanding on the subject.	12	8%	0%	17%	33%	42%	80%
The training was relevant to my needs.	12	8%	8%	8%	33%	42%	78%
The training will be useful to me and my professional growth.	12	8%	0%	17%	17%	58%	83%
Training met my expectations.	12	8%	0%	17%	58%	17%	75%
	Avg. 1	8%	2%	9%	43%	38%	80%
Section 2. Opinion of the trainers/presenters							
The trainer was knowledgeable about the training topic.	12	8%	0%	0%	50%	42%	83%
The trainer succeeded to explain and illustrate concepts	12	8%	0%	0%	42%	50%	85%
The topics were presented in a clear	12	8%	0%	8%	33%	50%	83%

	Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
and understandable manner.							
The trainer encouraged participation, interaction and answered questions clearly.	12	8%	0%	8%	50%	33%	80%
The trainer’s communication style kept me focused and interested.	12	8%	8%	17%	33%	33%	75%
	Avg. 2	8%	2%	7%	42%	42%	81%
	Avg. 1,2	8%	2%	8%	43%	39%	80%

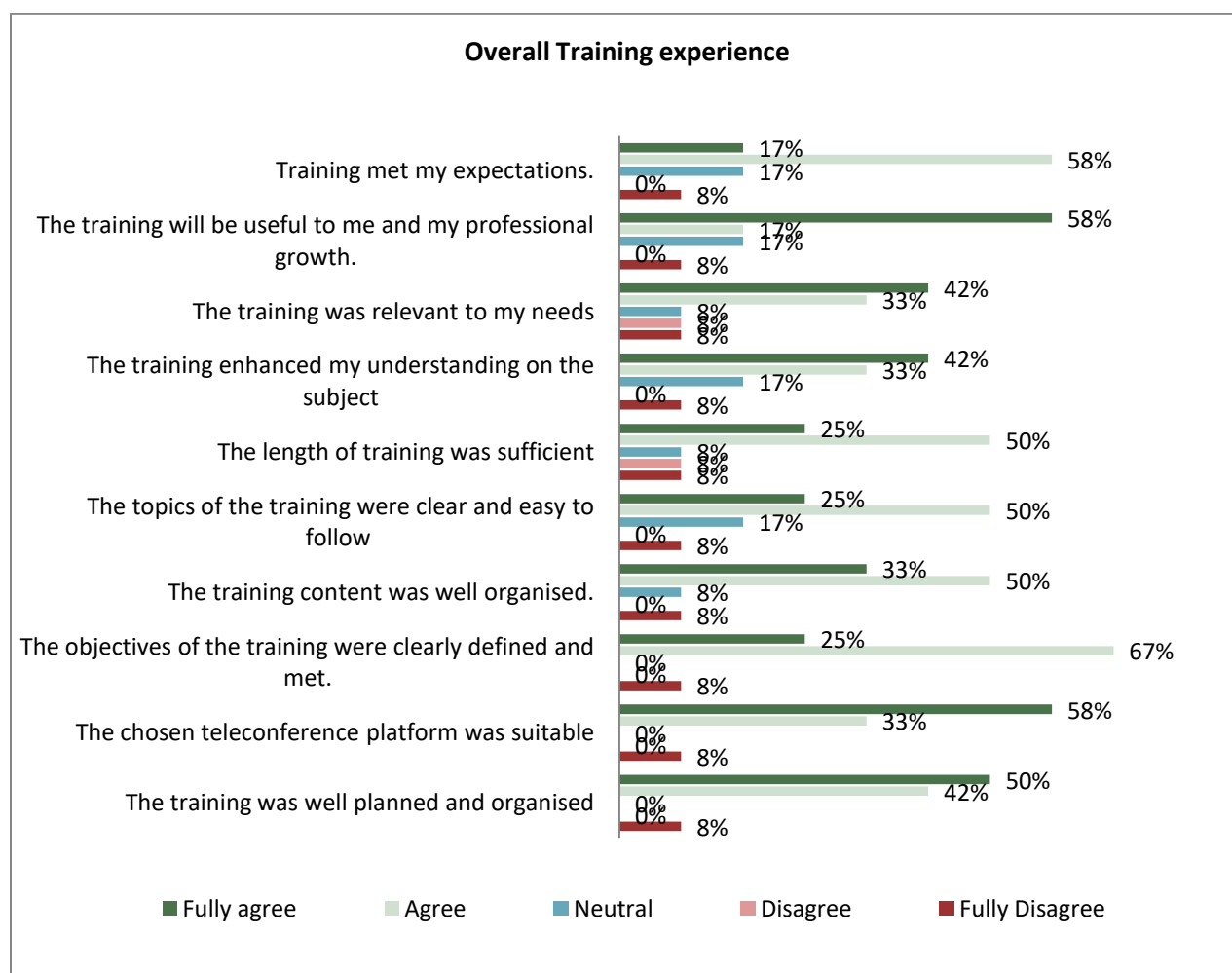


Figure 23. Analysis of responses on 1-5 scale for the Overall Training experience

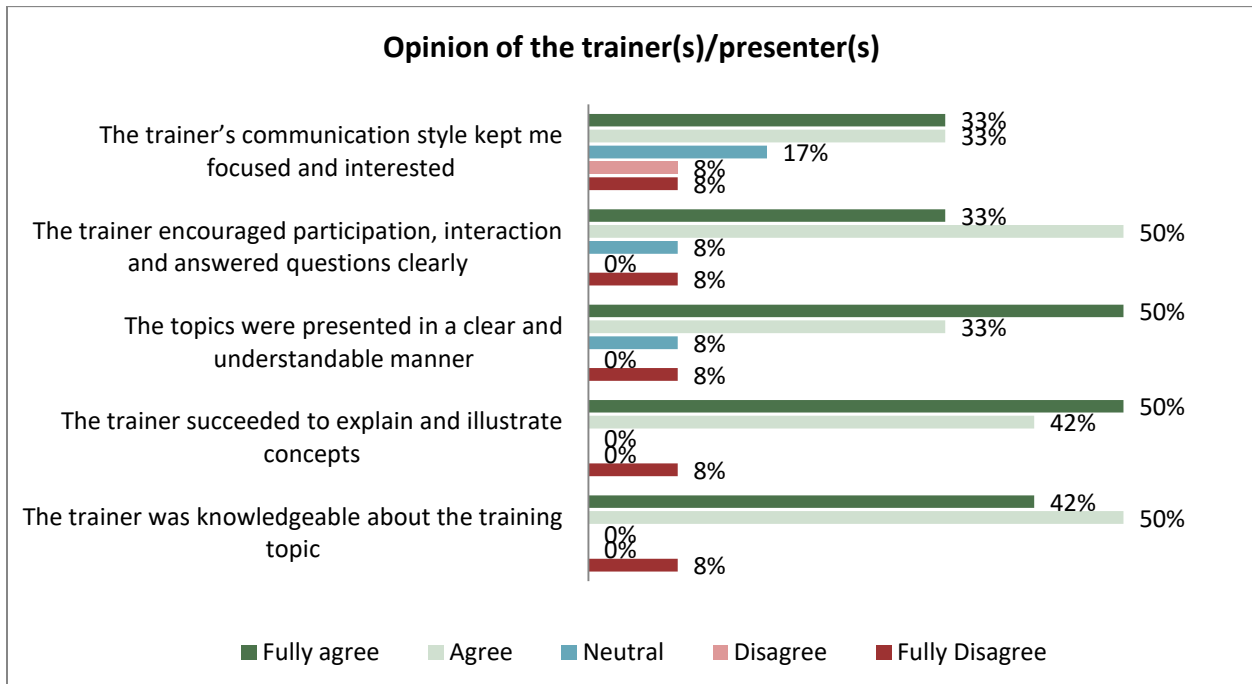


Figure 24. Analysis of responses on 1-5 scale for the opinion of the trainers/presenters



Figure 25: Analysis of responses on Yes-No scale for the appropriateness of the training according to the level of participants’ experience

As we can see from the graphs, the number of responses “Strongly Agree” and “Agree” statement dominate over the other responses. All questions have received one Strongly Disagree statement.

The questions that received one Disagree statement are: “The length of training was sufficient”, “The training was relevant to my needs” and “The trainer’s communication style kept me focused and interested”.

Also 10 out of 15 questions have received 1 to 2 Neutral responses.

The questions with the lower weighted average (75%) were: “The length of training was sufficient” and “Training met my expectations” while question with the highest weighted average (96%) was “The chosen teleconference platform was suitable”.

Open ended questions

In this section of the questionnaire, participants were asked to write suggestions or opinions about any of the aspects covered in the other questions or about issues not yet analysed. It must be noted that the following analysis concerns specific responses received, since some questions were either remained unanswered or received a general response. The open-ended questions included the following:

Which topics were not covered or insufficiently covered, in your opinion?

The (specific) responses in this question are the following:

- *This course is an introductory course. We expect to go deep through details of some AI toolboxes in the coming courses.*
- *Image processing*
- *Machine learning in Python*

Which topics were not relevant in your opinion?

No responses were received on this question.

What did you like best about the training?

In this question we have received the following answers:

- *Everything (2 responses)*
- *The problem session*
- *The instructor was so kind and answered the questions very clearly*
- *The presentation framework*
- *Homework (2 responses)*
- *The examples*

What suggestions or comments do you have for making the program more effective?

The suggestions coming from 4 participants are the following:

- *Plan the training course well ahead to have more time to inform the faculty members so that they can*

book their agenda well ahead on time

- *Maybe including more advanced topics like AI*
- *Make more training examples and provide us with the recorded lectures.*
- *It would be better to avoid having trainings during vacations.*

3.3.2 ROS training course (online, 02.11.2021 - 15.12.2021)

A questionnaire was prepared and was delivered to all the participants through Google Forms after the ROS (Robotics Operating System) training that was held online between November 2, 2021 and December 15, 2021 by the University of Jordan (UJ) in the framework of WP7.2. The course consisted of 10 2-hours sessions.

Responses were collected via Google Forms, between December 14th and December 27th 2021. 6 responses were received, coming from the following organizations, illustrated in Figure 26.

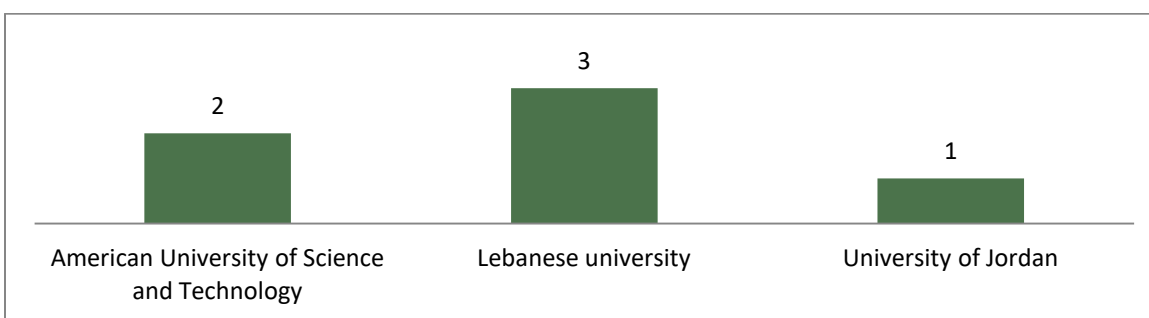


Figure 26. Number of surveys submitted (N=6)

The positions of the participants according to their responses are the following: 3 students, 1 lab instructor, 1 Chairperson and 1 teaching staff.

The responses given by the participants are analysed below.

Analysis of scaled questions

The responses received can be found below in Figures 27, 28 and 29 and Table 14. Most participants responded with a positive reply, marking the responses as Agree (33%) and Strongly Agree (24%) overall, for both sections, while a significant percentage (28%) is Neutral, 13% is Disagree and 3% is Strongly Disagree.

On average there was 73% agreement with the statements of the 2 sections, not much above the appointed 70% threshold.

In the first section of questions, in the overall experience about training, the average agreement was 77%. The

majority of the answers are Agree (35%), while 31% is Neutral, 27% is Strongly Agree and 6% is Disagree.

The lowest rating received was 60% (“Q4 - The topics of the training were clear and easy to follow) and the highest 90% (“Q7 - The training was relevant to my needs”).

In the second section of questions about the participants’ opinion of the trainers/presenters, the average agreement was 64% below the appointed 70% threshold. Response rates mostly at Agree (29%) and Disagree(25%), while a percentage (21%) is Neutral 17% is Strongly Agree and 8% Strongly Disagree.

The lowest rating received was 37% (“Q12- The communication style of the trainer(s) kept me focused and interested”) and the highest 90% (“Q9- The trainer(s) was knowledgeable about the training topic”).

Finally, 5 participants agreed that the training was appropriate for their level of experience, while one stated that it wasn’t.

Table 14. Analysis of responses on 1-5 scale for the Training workshop

	Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
Section 1. Overall Training experience							
The training was well planned and organized.	6	0%	17%	0%	67%	17%	77%
The chosen teleconference platform was suitable.	6	0%	0%	0%	67%	33%	87%
The objectives of the training were clearly defined and met.	6	0%	0%	33%	17%	50%	83%
The topics of the training were clear and easy to follow.	6	0%	17%	67%	17%	0%	60%
The length of training was sufficient.	6	0%	17%	50%	17%	17%	67%
The training enhanced my understanding on the subject.	6	0%	0%	17%	33%	50%	87%
The training was relevant to my needs.	6	0%	0%	0%	50%	50%	90%
Training met my expectations.	6	0%	0%	83%	17%	0%	63%
	Avg. 1	0%	6%	31%	35%	27%	77%
Section 2. Opinion of the trainers/presenters							
The trainer(s) was knowledgeable about the training topic.	6	0%	0%	17%	17%	67%	90%

	Count	1-Strongly Disagree	2- Disagree	3- Neutral	4- Agree	5- Strongly agree	weighted average
The topics were presented in a clear and understandable manner.	6	0%	0%	50%	50%	0%	70%
The trainer(s) encouraged participation, interaction and answered questions clearly.	6	0%	50%	0%	50%	0%	60%
The communication style of the trainer(s) kept me focused and interested.	6	33%	50%	17%	0%	0%	37%
	Avg. 2	8%	25%	21%	29%	17%	64%
	Avg. 1,2	3%	13%	28%	33%	24%	73%

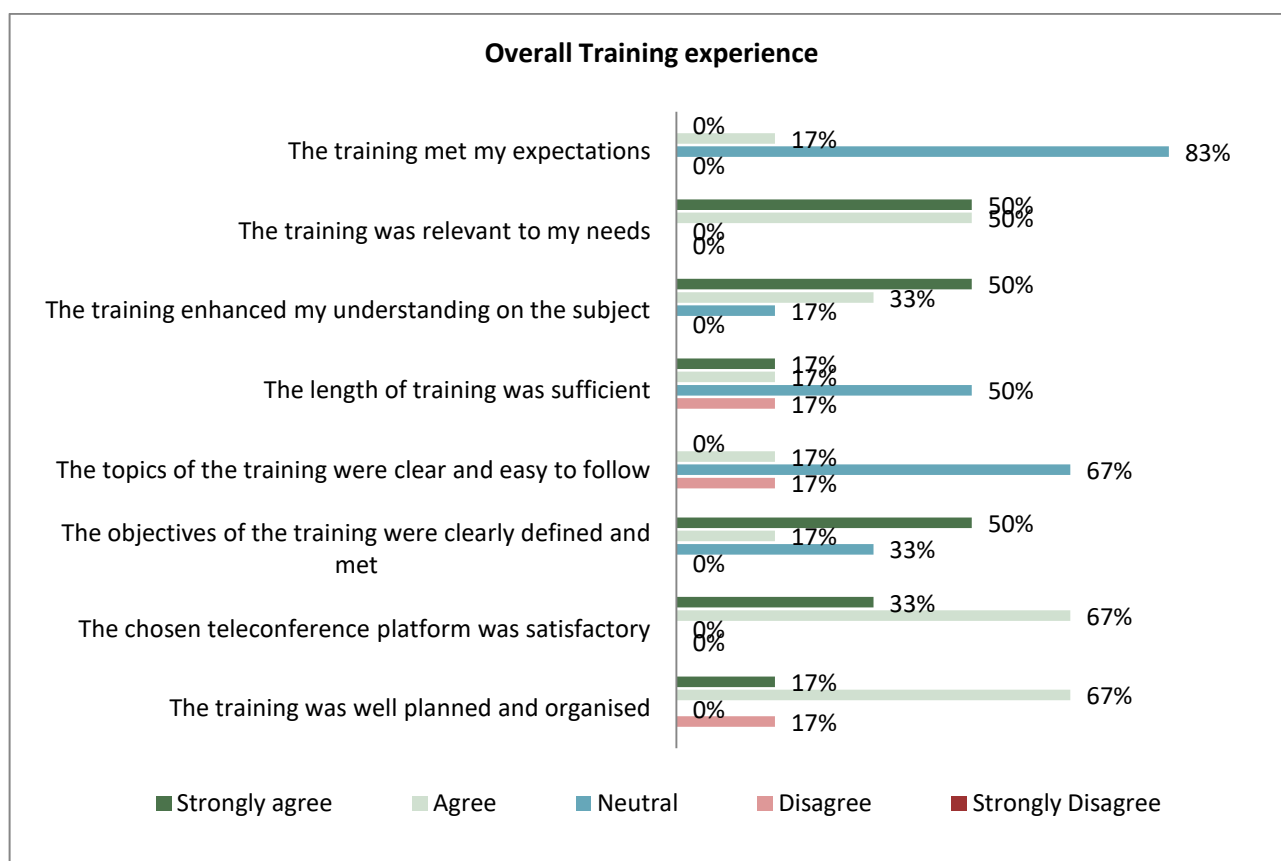


Figure 27. Analysis of responses on 1-5 scale for the Overall Training experience

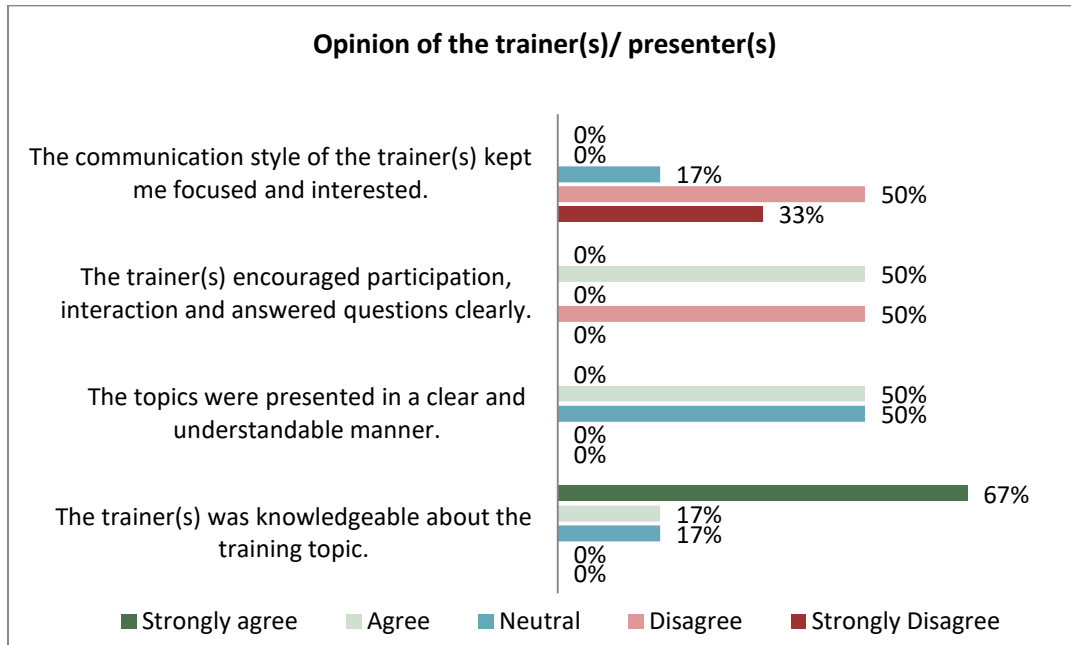


Figure 28. Analysis of responses on 1-5 scale for the opinion of the trainers/presenters



Figure 29: Analysis of responses on Yes-No scale for the appropriateness of the training according to the level of participants' experience

The statements that received one Disagree response are: Q1 “The training was well planned and organised”, Q4 “The topics of the training were clear and easy to follow” and Q5 “The length of training was sufficient”.

Three Disagree responses received the statements: Q11 “The trainer(s) encouraged participation, interaction and answered questions clearly” and Q12 “The communication style of the trainer(s) kept me focused and interested”. Q12 received also 2 Strongly Disagree responses.

Open ended questions

In this section of the questionnaire, participants were asked to write suggestions or opinions about any of the aspects covered in the other questions or about issues not yet analysed. It must be noted that the following analysis concerns specific responses received, since some questions were either remained unanswered or received a general response. The open-ended questions included the following:

Which topics were not covered or insufficiently covered, in your opinion?

The (specific) answers in this question are the following:

- *ROS2 should have been handled as it is a much more future proof platform and training*
- *Path Planning*
- *Programming*

Which topics were not relevant in your opinion?

The one response received in this question stated that perhaps the review of Python and C++ could have been given for participants to read on their own before starting the workshop.

What did you like best about the training?

In this question we have received the following answers:

- *The details explained and complexity*
- *Simulation of the mobile robot*
- *It's hands on*
- *Gazebo simulation and connecting it to real scenarios at the end*
- *The examples*

What suggestions or comments do you have for making the program more effective?

The suggestions coming from 5 participants are the following:

- *Maybe attempt to engage more with the participants and make it more interactual*
- *slowing the pace a little bit, in addition giving assignments*
- *More relevant examples*
- *I think it would have been more interesting to introduce a basic robot model using the simulator instead of the turtle simulator as it would have been more engaging. Yet, I do understand the presenter need to use a far simpler simulator at the beginning.*
- *The strong accent made it harder*

3.4 Deliverable evaluations

Document deliverables that are identified as key in the Quality Monitoring Table undergo an internal evaluation process by the partners involved in the task, after the distribution of the deliverable to the partners. For each evaluation, each partner's project representatives rate the deliverable in a questionnaire, using Google Forms.

The questionnaire used consists of 4 sections. The 1st section contains 3 Yes/Partly/No questions regarding completeness, thoroughness, and appropriateness of the work delivered. If participants respond with "Partly or "No" answer, they are asked to justify their answer. The 2nd section concerns formatting errors questions, while the 3rd section concerns suggested changes for corrections and improvements, if any, that should be implemented in order the deliverable to be acceptable. The last section gives 2 options: A. Deliverable accepted; no changes required, B. Deliverable not accepted; it must be reviewed after changes are implemented, according to which the final decision about the acceptance of the deliverable is made.

At the beginning of the questionnaire respondents are asked to declare their organisation, for the purpose of ascertaining partner participation.

3.4.1 Concluding Report on Surveying and Identifying the Needs for AI and Robotics in Jordan and Lebanon (WP1.6)

An online questionnaire was prepared and was delivered to the partners regarding the acceptance of the deliverable of the task WP1.6 which is titled "Deliverable "Concluding Report on Surveying and Identifying the Needs for AI and Robotics in Jordan and Lebanon".

Between May 10th and June 28th 2021, the Deliverable has been evaluated in two phases, via Google Forms. Totally 12 responses were received, coming from the following organizations, illustrated in Figure 30. The document has been finalized on 30 June 2021 after revision.

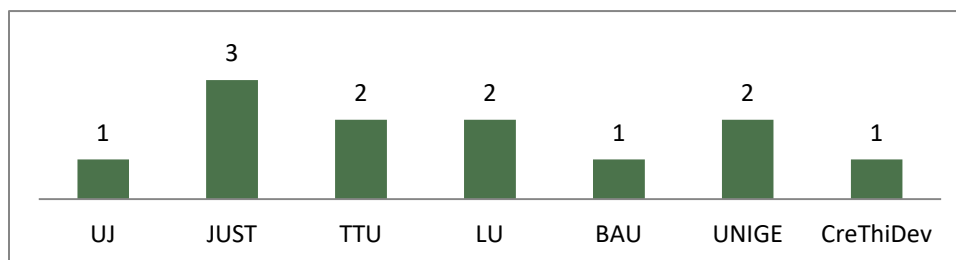


Figure 30. Number of surveys submitted (N=12)

The analysis of responses can be seen below.

As we can see in the figure below, all respondents stated that the deliverable fulfills the project objectives.

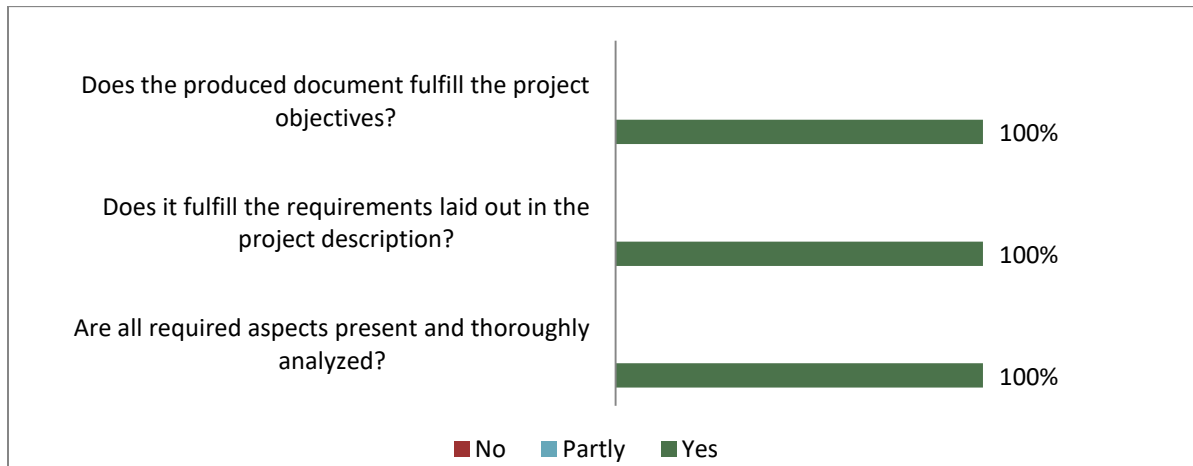


Figure 31: Analysis of responses on Yes-Partly-No scale for the deliverable evaluation

In the question “Have you identified any formatting errors?”, one participant stated that the deliverable doesn’t use the appropriate template.

Also, in the question: “Do you think the documents need the addition, change or removal of information, pages or areas in order to be acceptable? If yes, which are these?”, the only response received stated that the document is a good synthesis of the surveys’ results.

All agree that the deliverable should be accepted, without modifications.

3.4.2 Report on the syllabi and content for added/modified courses in existing master programs (WP5.1)

An online questionnaire was prepared and was delivered to the partners regarding the acceptance of the deliverable of the task WP5.1 which was titled “Report on the syllabi and content for added/modified courses in existing master programs”.

Between 25/11/2021 and 02/12/2021, the Deliverable has been evaluated. 5 responses were received: 2 from UST, 2 from UJ and 1 from LU, as illustrated in Figure 32 below.

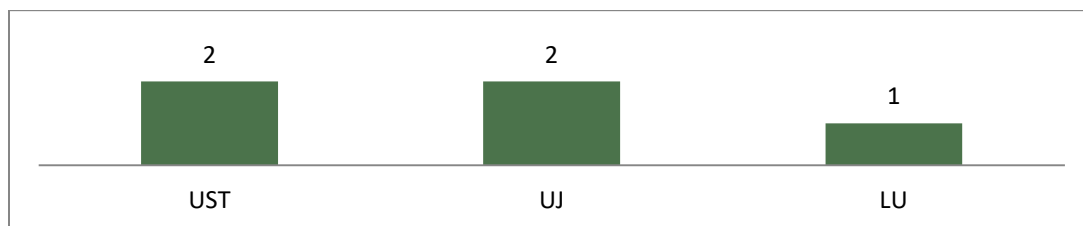


Figure 32. Number of surveys submitted (N=5)

All agree that:

- All the required aspects present and thoroughly analysed
- The deliverable fulfills the requirements laid out in the project description
- The deliverable fulfills the project objectives
- There are no formatting mistakes
- The deliverable doesn't need the addition, change or removal of information.
- The Deliverable should be accepted, without modifications.

4. Conclusions

Overall, according to the project quality assurance measures taken and the evaluations performed in terms of quality control, it is considered that the 1st year of the project has been implemented according to the project plan and objectives, and the production of concrete and high-quality results in line with the project objectives has been ensured through the implementation of quality assurance and control interventions.

Project management is going smooth and all the project activities are implemented according to its original plan. The project is progressing well towards achieving its objectives, despite the COVID pandemic restrictions which caused many activities and events to be carried out online.

The positive effects of the first face-to-face meeting (the 9th meeting of the project) that was held in Amman, Jordan in November 2021, has given to the partnership more confidence in the success of the project, something that is evident in their responses in the post-meeting questionnaire.

Monitoring 1st year progress:

- ✓ The project has developed the Quality Assurance & Evaluation Plan and established its Quality Committee. The Committee has already endorsed the comprehensive report and has its adequate tools for monitoring and evaluation.
- ✓ The project has successfully completed all the surveys and produced a comprehensive report identifying needs of Artificial Intelligence and Robotics professionals, available courses, and study programmes.
- ✓ The structure of the courses and the teaching materials are produced and are under evaluation phase.
- ✓ The process of having the new programmes approved in Jordan and the upgraded courses approved in Lebanon and Jordan is ongoing without any difficulties.
- ✓ Approvals were received to improve the study plans of M.Sc. in Computer Engineering and Networks, B.Sc. in Computer Engineering, and B.Sc. in Mechatronics Engineering at UJ, M.Sc. of Mechanical Engineering – Mechatronics at JUST, and B.Sc. in Computer Engineering at TTU.
- ✓ Partners are working on establishing one master programme in Artificial Intelligence and Robotics (AIR)

- at UJ and one bachelor programme of AIR at TTU.
- ✓ The project has carried out two virtual trainings.
 - ✓ Equipment specifications were identified, and tendering process started. The project has launched the bidding for acquiring the lab equipment in the aim of having them ready when the course delivery will start in fall 2022.
 - ✓ Conducting study visits is postponed to the second year of the project lifetime due to COVID-19.
 - ✓ The project has created its website, established its internal communication area and created many social media accounts. The website contains detailed information about the project and its activities. It is expected to be enriched with more news about the project activities when more results are produced.

Issues that need attention:

- a) Networking with stakeholders is in progress with the organisation of several activities, both inwards (within the Universities), as well as outwards, towards external stakeholders, and through other dissemination activities (events, social media posts). Nevertheless, project partners should increase involvement of stakeholders and intensify dissemination activities.
- b) Equal to visibility, significant attention should be given to ensure sustainability and impact of the project results. Impact can be strengthened when a maximum number of people can be involved in the project activities and trained in its capacity building sessions.
- c) It is also very important that the project continue to find synergies with other similar CBHE projects for exchange of experiences and capacities. More of these synergies are encouraged.
- d) Moreover, strengthen the relation with the industry is essential to this project. Also, employment of graduates from the respective bachelor and master programmes is also dependent on a structured and continuous relationship with the industry.
- e) Partners need to compensate the delay that occurred during the first year of the project implementation. The year 2022 is vital for the implementation of the project. It is very important that the project exert its efforts to implement all the promised activities including those delayed from the first year on time and as designed in the original proposal (i.e intensify field visits and capacity building).
- f) Monitoring of the progress of the project needs to be documented using progress reports for the purpose of visibility, which shall be collected at intervals by the Project Coordinator with the assistance of the Quality Manager, using the standard form provided.

It is worth mentioning that the partnership is committed to the success of the project, as shown by the very frequent online meetings carried out and the subsequent close monitoring of the activities implemented.

Quality issues are discussed in all meetings, with quality being a standing item. Issues raised through evaluation surveys are adequately discussed and dealt with by the Project Coordinator, with the assistance of the Quality Manager. Also there are standard communication channels by email, among partners to express any difficulties. The timetable is discussed among partners at all the meetings and is updated and revised accordingly in order to achieve the timely completion of the project outcomes with the desirable quality. All deadlines are properly communicated to relevant partners in due time.

ANNEXES: Dissemination and Communication Activities

During the 1st year of the project, i.e. from January 15, 2021 until January 14, 2022 the following dissemination and communication activities have been made. These activities include all occasions where partners had the possibility to present and promote the activities and results of the DeCAIR project.

More information regarding the dissemination and communication activities are reported on the website of the project: <http://decair.ju.edu.jo/Lists/Activities/AllActivities.aspx>, as well as DeCAIR's project social media channels: facebook, instagram, twitter and Youtube.

ANNEX I: Non-project events participation & presentation of the project

DeCAIR project in the Cluster meeting with representatives of newly selected CBHE projects (Amman, Jordan, 8 March 2021)

The DECAIR project participated in the Cluster meeting with representatives of newly selected CBHE projects. Represented by the project coordinator Prof. Gheith Abandah, the Cluster meeting titled 'How to ensure better implementation of CBHE projects' was attended on March 8, 2021, at The University of Jordan in Amman.

DeCAIR project in the launch of the second phase of the Erasmus+ program (Amman, Jordan, 22 November, 2021)

DeCAIR participated in the launch of the second phase of the Erasmus+ program for the development of higher education. The Secretary General of the Jordanian Ministry of Higher Education and Scientific Research. Dr. Mamoun M. Al-Debi'e, on behalf of the Minister of Higher Education and Scientific Research in Jordan. Prof. Wajih Owais., inaugurated the activities of launching the second phase of the Erasmus Plus program (2021-2027), which was organized by the Erasmus Plus National Office, through which presenting all opportunities and themes of the program to participants from various ministries and authorities, all Jordanian universities, and a number of local community institutions, non-profit organizations and companies.

DeCAIR project presented as a Good Practice in the field of AIR (Tripoli, Lebanon, 11 December, 2021)

Dr Wassim El Falou, Professor at the Lebanese University, was invited by the "Lebanese Association for Scientific Research (<https://laser-lb.org/en/>)" to deliver a lecture on "Artificial Intelligence, from Philosophic and Practical Perspectives". DeCAIR was presented as a good practice example in the field of AIR.

Presenting DeCAIR project within the third day of the International Research Project ADONIS (online, 6 December, 2021)

Within the third day of the International Research Project ADONIS “Approches de Diagnostic et de cONtrôle Intelligent des Systèmes”, Prof. Clovis Francis from the Lebanese University disseminated among the participants the Erasmus+ Capacity Building Project DeCAIR. The goal of this dissemination activity is to keep the different stakeholders aware about the project goals, objectives and progress.

DeCAIR project participated in the International Affairs Unit at the University of Jordan (Amman, Jordan, 21 December, 2021)

Organized by the International Affairs Unit at the University of Jordan, DeCAIR participated in the event entitled "Erasmus+ Phase Two CBHE Proposal Writing" that took place on December 21, 2021 at the University of Jordan.

DeCAIR project participated in Implementing the Course “Creative Thinking and Security Leadership” (Amman, Jordan, 11 January, 2022)

As part of the DeCAIR project cooperation with the Innovation and Entrepreneurship Center at the University of Jordan and the Innovation and Development Center at the Public Security Directorate in implementing the “Creative Thinking and Security Leadership” course, Prof. Dr. Gheith Abandah presented a training session entitled “The reality and future of artificial intelligence and security.” Among the sessions covered was also the “DeCAIR Project: Developing Curricula for Artificial Intelligence and Robotics”.

ANNEX II: Media Coverage

DeCAIR Project General Coordinator was hosted by The University of Jordan Radio to discuss AI and the DeCAIR project

Thu 20/1/2022: Prof. Gheith Ali Abandah was hosted by the University of Jordan Radio to discuss AI and the DeCAIR project. This was through an episode of the JU TECH program prepared and presented by Lara A Dahiyat. You can listen to the full interview through the followig link: <https://fb.watch/aJ5Y4wgCex/>

ANNEX III: Meetings with stakeholders (target audience) beyond the scheduled networking activities

UJ University: Dissemination meeting of the DeCAIR project with Stakeholders (online, 4 March 2021)

As part of the DeCAIR, project, a technical workshop, beyond the scheduled networking activities, for parties that are interested and working in the AI and Robotics domains was virtually held. This stakeholder's workshop was held on Thursday 4/3/2021 through Zoom and included about 70 experts from the public and private sectors, academicians, students, researchers and experts from the project partner countries (Jordan, Lebanon, Italy, Germany and Spain). The workshop schedule included presentations from faculty members from the European partner countries in addition to representatives from companies working in the field of AI and robotics. During the workshop, experiences were presented and exchanged in the field of artificial intelligence and robotics, the benefits and impacts of these technologies on various fields, and the importance of developing academic programs in both Jordan and Lebanon to prepare graduates with qualifications appropriate to the needs of the labor market. The speakers and participants in this workshop emphasized the importance of these technologies and the necessity of creating new programs for preparing specialists in these areas and developing current programs to add and develop topics for these technologies. The European partners emphasized that the interest in such programs is great and that graduates of these programs are needed in the labor market. The participating experts from the public sector and the private sector emphasized the need for such disciplines. The workshop concluded with discussion session during which the speakers answered the attendees' questions. Also, a questionnaire was distributed to all attendees, including experts, students, academics and technicians, to survey the state of AIR in their countries and to benefit from their observations and experiences in designing and developing programs in AIR.

Lebanese University: Info Day (22 September 2021)

The Lebanese University performed an Information day about the DeCAIR project on September 22nd 2021. The goal of this information day is to keep the Master students aware about the project progress and results.

During the information day, Prof. Clovis Francis presented to the students DeCAIR activities and the Master in Robotics and Intelligent Systems program courses to be updated by DeCAIR.

