DELIVERABLE 4.2

The second annual quality-assurance report

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LIST OF CHANGES

Version	Date	Change Records	Partner responsible
1.0	October 15th, 2021	Original Version	(UVigo)
1.1	November 12th, 2021		(UCLan)
1.2	November 12th, 2021		(UNITN)
1.3	November 12th, 2021		(MU)
1.4	November 12th, 2021		(AHU)
1.5	November 12th, 2021		(TTU)
1.6	November 19th, 2021		(UPAT)
2.0	November 20th, 2021	Final Version	Quality Monitoring Committee

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1. INTRODUCTION

1.1 Scope and Objectives

The second annual quality assurance report is aimed to evaluate the progress in the IREEDER project, in particular the activity towards reaching project aims. The quality assurance report is prepared by the Quality Monitoring Committee (QMC).

The report is done on the overall implementation of the project activities as well as on the curricula development and implementation. The report may suggest corrective actions and will be submitted during the project execution.

Quality Monitoring Committee:

-Felipe Gil Castiñeira (UVigo) – leader of WP 4

-Andreas Kazantzidis (UPAT)

-Saud Althunibat (AHU)

-Ziyad Altarawneh (MU)

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The main objective of the IREEDER project is to improve the capacity of higher education, using state of the art technology and training staff on improving the quality of the materials taught, by making the best use of these technologies. The developed subjects are oriented towards the recent technologies in electrical engineering including RE, IoT and CS, in addition to their different applications. All these subjects will be in accordance with the EU requirements. The specific objectives are:

1) To develop, integrate, accredit, and evaluate subjects with appropriate laboratories' components in the fields of RE, IoT and CS taught by universities in Jordan and brought into line with the EU requirements.

2) To engage faculty members in the development of interactive instruction techniques for lectures, laboratory training, and sharing experiences with EU partner universities.

3) To develop and implement subject content using Virtual Learning Environment (VLE) delivery and remote labs.

4) To extend services and training in collaboration with the industry firms and local communities.

5) To improve the human capacity of Jordanian universities by providing training and upgrading opportunities in the EU for aspiring youth and women academic staff.

2. Monitoring and quality assessment activities for the period November 2020 – November 2021

This second quality monitoring report is drawn up after the end of year 2 of the project (second year: November 2020 - November 2021) with the aim of evaluating the quality of the IREEDER project following the instructions included in the Plan of Quality monitoring.

The purpose of this evaluation is to ensure that the implementation of the IREEDER project is carried out according to the agreed schedule and following the European standards that govern the project.

The QMC was established at the kick-off meeting and comprises a senior representative from regional and European partners. The QMC is the main strategic body for quality control and monitoring of project results. The QMC monitors and evaluates the quality of the project's expected results against the established qualitative and quantitative indicators of progress. Its main objective is to carry out an evaluation of the analytical materials produced by the project consortium within the framework of the work packages. Each QMC contact person is also in charge of disseminating the QAP in their institutions, following day-to-day activities using the work plan and logical framework matrix as reference documents, and finally, making sure that all deliverables of the project are sent to the work package leaders on time.

This evaluation refers to the effective implementation of the work packages and activities foreseen in the application for this period.

In November 2021, the QMC verified that the tasks already completed were:

WP1: Project Initialization and Work Preparation

-D1.1 Kick-off meeting; (Achieved, 3-4/02/2020)
-D1.2 Identifying training and teaching needs; (Achieved, 15/02/2020)
-D1.3 Verifying Partner's Facilities; (Achieved, 15/2/2020)

WP2: Development of the teaching materials

-D2.1 Report on teaching objectives and materials' outline; (Achieved, 14/06/2020)
-D2.2 Preparing the teaching materials; (Achieved, 15/06/2021)

WP3: Capacity building and training of trainers

-D3.1 Development of a capacity building plan; (Achieved, 15/11/2020)
-D3.2 Identification of general equipment of laboratories; (Achieved, 15/06/2020)
-D3.3 Holding training workshops in EU; (Ongoing)

WP4: Quality Assurance

-D4.1 The first annual quality assurance report; (Achieved, 15/11/2020)
-D4.2 The second annual quality assurance report; (Achieved, 20/11/2021)

-D4.4 The mid-term evaluation report (External evaluator); (Achieved, 15/04/2021)

WP6: DISSEMINATION

-D6.1 Development of the dissemination plan; (Achieved, 15/01/2021)

-D6.2 Communication plan and promotion materials; (Partially Achieved)

WP7: Management

-D7.1.2 Second IREEDER plenary meeting; (Achieved, 09/09/2020)

-D7.1.3 Third IREEDER plenary meeting; (Achieved, 25/02/2021)

-D7.1.4 Fourth IREEDER plenary meeting; (Achieved, 29/07/2021)

-D7.2 IREEDER website and communication platform; (Partially Achieved)

3. Review of the work plan for the first and second year of the project

Work Plan for project year 1

Activities	Total duration (number of weeks)	Total duration (number of weeks)	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Nº de	Title													
1.1	Holding Kick-off meeting	1	1X											
1.2	Preparing the questionnaire and analysing the results	12	4X	4X	4X									
1.3	Preparing the survey and analysing the results	12	4X=	4X=	4X=									
2.1	Identification of teaching objectives and materials outlines	16				4=	4=	4=	4=					
2.2	Preparing the teaching materials	20								4=	4=	4=	4=	4=
3.1	Preparing the capacity building plan	12								4X=	4X=	4X=	4X=	
3.2	Identification of laboratories equipment	12									4X=	4X=	4X=	4X=
4.1	Preparing the first quality assurance report	6							1=	1=				4=
4.4 & 4.5	Activities related to external evaluator	6							1X	1X	1X	1X	1X	1X
7.1	Coordinating plenary meeting	4	2X						2X					
7.2	Setting up the project website	5	1X	1X	1X	1X	1X							

Work Plan for project year 2

Nº de	Title	Total duration (number of weeks)	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
2.2	Preparing the teaching materials	28	4=	4=	4=	4=	4=	4=	4=	▇				
3.2	Identification of laboratories equipment [14/6/2020 (anticipated as suggested by the National Officer)]	16	4X=	4X=	4X=	4X=								
WP3	Establishment of IoT, CS, RE laboratories in Jordan	32					4X	4X	4X	4X	4X	4X	4X	4X
2.1	Establishment of IoT										▇			
2.2	Establishment of CS													▇
3.1	Establishment of RE									▇				
4.2	Preparing the second quality assurance report	6						1=	1=					4=
4.4&4.5	Activities related to an external evaluator	6							1X	1X	1X	1X	1X	1X
6.1	Preparing dissemination plan. The dissemination plan was supposed to be given on June 15, 2021. However, it was provided on January 15, 2021.	12			▇		4X	4X	4X					
6.2	Preparing promotion materials	10								2X	2X	2X	2X	2X
7.1	Coordinating plenary meeting	4	2X			▇			2X		▇			

▇ Activities carried out

Activity carried out in the Programme Country: = (E.g., activity in Spain for two weeks in the first month of the project 2= under M1).

Activity carried out in the Partner Country (ies): X (E.g., activity in Jordanian for three weeks in the second month of the project: 3X under M2).

3.1 General overview of WP1

Work package 1 was completed according to the work programme during the first year of the IREEDER project, and produced the following results:

D1.1 IREEDER kick-off meeting: The Kick-off meeting was held at AHU on Feb. 3-4, 2020. The StC (Steering Committee) and SSC (Scientific and Supervising Committee) were formed by selecting three representatives from each partner (1 StC and 2 SSC). All managing structures and technical activities were discussed in the meeting. A specific session was devoted to administrative staff for a clear sharing of the rules for expenditures. The memorandum of understanding (MOU) between all partners was also discussed and signed.

D1.2 Identifying training and teaching needs: A report (Deliverable D1.2) on teaching and training needs for IoT, CS and RE was prepared based on a questionnaire distributed among all partners, other stakeholders such as universities, students, trainees, private companies, and public administrations. More attention was paid to the Jordanian stakeholders.

D1.3 Verifying Partners' Facilities: This report (Deliverable D1.3) provides a survey of the facilities of all partners to ensure continuity to the IREEDER project. The survey reports the number of departments and students, laboratories, library, existing subjects for the project topics and their contents, number of academic staff and their previous experiences, international relations, and many other facilities like the video conference instruments and hall.

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WP1	PROJECT INITIALIZATION AND WORK PREPARATION				
WP Leader	**Fabrizio Granelli (UNITN)**				
REPORTING PERIOD	**15/11/2020 - 15/11/2021**				
WP 1 Overall Progress	WP 1 aims to create the framework for the development of project activities. Within this work package, the official members of the Scientific and Steering Committees were appointed and specific tasks and responsibilities were assigned following the signing of the partnership agreement. This work package 1 also identified the state of the current supply at the academic level in IoT, RE and CS, identifying the specific needs in terms of knowledge and practical skills to respond to the requests of the Jordanian labour market.				
1. Tasks					
Activity #	**Brief description of activity delivered**	**Comments**	**Status**	**End of task [dd/mm/yyyy]**	**Anticipated Risks**
Task 1.1_ To hold the kick-off meeting at AHU	The kick-off meeting was held at AHU (Ma'an-Jordan) on February 3-4, 2020, where representatives from all partners participated.	04-02- 2020 (delayed based on National Erasmus Office recommendation)	Delivered	14/12/2019 Real Delivery Date: 04/02/2020	R1.1: inactivity of a partner or more. The active involvement of the partners in the project activities from the beginning is demonstrated by the high number of participants in the Kick-Off meeting. Moreover, partners have contributed to the sharing of online surveys among local stakeholders fostering high participation with more than 300 responses for each questionnaire.
Task 1.2_To form the StC and SSC	During the kick-off meeting, the StC and SSC have been formed with representatives from all partners.	During the Kick-Off meeting, the participants agreed on the names of the members of the Steering and Scientific Committees of the IREEDER project.	Delivered	15/2/2020	
Task 1.3_To distribute tasks within each partner	The task allocation has been discussed for all partners from the beginning of the project. Also, in the kick-off meeting, the framework	During the second day of the Kick-Off meeting, it was asked to each WP leader to provide a short presentation of the main tasks and deliverables. The main goal of this approach was to improve the awareness of the leaders in their roles in the project and	Delivered	15/2/2020	R1.2: low interest of local authorities and companies in the IoT, CS and RE issues. The high participation of local stakeholders in the surveys proves the interest of Higher Education institutions and companies in the topics. This interest

	for each WP has been discussed and agreed on.	clarify their responsibilities in guaranteeing the achievement of the foreseen results.			should be preserved, designing an appropriate strategy for the medium and
Task 1.4_To define a general cooperation methodology	A general cooperation and communication approach has been discussed and agreed on to achieve each task of each WP.	A common approach for the collaboration and the communication in the project was discussed during the Kick-Off meeting and the decisions taken were reported in the Minutes. Partners agreed on the methodology for the investigation of needs in terms of competencies at the university level and in the labour market. The three questionnaires were designed and shared in the three sectors of IoT, CS and RE, seeing the participation of more than 300 people each. The results, in term of participation in each survey, is higher than the quantitative indicators included in the proposal in the Logical Framework (at least 100 filled surveys per topic).	Delivered	15/2/2020	long-time involvement of the stakeholders in the project activities, increasing the final impacts at the National and Regional levels.

2. Deliverables					
Deliverable #	**Current Status**	**Specific and measurable indicators**	**Comments**	**Deadline for Submission (according to contract)**	**Deviation of working or time schedule and technical corrective action**
DEV 1.1 IREEDER Kick-off meeting	ACHIEVED	Kick-Off meeting organized at AHU. StC members nominated. SSC members nominated. Partnership agreements between the coordinator and all partners signed. n.1 Kick-off meeting quality report (see annex 1)	04-02- 2020 (delayed based on National Erasmus Office recommendation)	15/12/2019	Task 1.1: The Kick-Off meeting was planned to be in the first month of the project. However, due to the national Erasmus office recommendation, it has been shifted to the beginning of Feb 2020 (after the grant-holder meeting held in Brussels 27-28 Jan 2020).

DEV 1.2 Identifying training and teaching needs	ACHIEVED	n.3 questionnaires were elaborated, distributed, and filled in. n.371 participants in the IoT questionnaire. n. 333 participants in the CS questionnaire. n.334 participants in the RE questionnaire. n.1 final report elaborated (D1.2).		15/2/2020	WP1 was closed on 15 Feb 2020 and all its activities were finalized.
DEV 1.3 Verifying Partners' Facilities	ACHIEVED	n.1 questionnaire (survey) was elaborated, distributed, and filled in. n.10 responses (one from each partner) were received. n.1 final report elaborated (D1.3).		15/2/2020	

3.2 General overview of WP2

The main aim of WP2 is to develop the teaching material for three courses on key topics on Electrical and Electronic Engineering:

- Internet of Things (IoT)
- Cybersecurity (CS)
- Renewable Energy (RE)

During the first year of the project, the outline (course descriptors) of the 3 courses were defined and reported in Deliverable D2.1 which also included the teaching development responsibilities of each partner in the consortium. D2.1 and was submitted on time on the 15th of June 2020. The teaching material descriptors define the following for each course: the course aims; the learning outcomes; the teaching methodology; the weekly teaching materials schedule; the assessment methods; the bibliography.

Once the outline was defined, partners started preparing their teaching material (slides and lecture notes) based on the workload distribution reported in D2.1. The teaching material has been delivered according to the estimated date of completion (15th June 2021) as part of D2.2. To ensure the quality of the teaching materials, experts in the three fields (IoT, RE and CS) from outside the IREEDER partner institutions were selected to review and evaluate the contents. Based on their responses, three quality reports of the learning content were produced, one for each course (see annex). D2.2 included the power point presentation for all the teaching material (13 teaching weeks) as well as consolidated document in Microsoft word format that includes 13 chapters; each chapter containing extensive lecture notes for each teaching week. Separate documents have been prepared for each topic (RE, CS and IoT). There were no deviations from the original plan.

WP2	DEVELOPMENT OF TEACHING MATERIALS				
WP Leader	Marios Raspopoulos (UCLAN)				
REPORTING PERIOD	15/11/2020-15/11/2021				
WP 2 Overall Progress	The main objective of WP2 is the development of integration materials for training and teaching activities. The new materials were developed on the basis of the results of the surveys conducted in WP1. Within WP2, the training objectives and the general contents of the teaching materials were defined.				
1. Tasks					
Activity #	Brief description of activity delivered	Comments	Status	End of task [dd/mm/yyyy]	Anticipated Risks
Task 2.1 Collecting and updating of existing material	The input received from WP1 questionnaires was discussed between the members of WP2 and the descriptors of the 3 courses (IoT, RE, CS) were prepared. These descriptors include detailed information about each course, aims and learning outcomes, information about the content distributed in 13 teaching weeks, the assessment methods, the scheduled teaching plan, the teaching methodology and the bibliography. These course descriptors together with the teaching material workload distribution were included in Deliverable D2.1 which was submitted on time on the 14th of June 2020.	Responsibilities for the development of the new courses were clearly divided among the partners by appointing three working groups, one for each topic (IoT, CS and RE). The partners also agreed on the final structure and contents of the descriptor for each course based on Jordanian and European standards and aimed at demonstrating the skills acquired by the students at the end of the courses.	Delivered	14/6/2020	R2.1: expectations concerning teaching objectives may strongly differ from partner to partner. The consortium found a common solution based on the analysis of local needs and the results of the surveys presented during WP1. This risk did not affect the project. R2.2: a synthesis will have to be found. This risk did not affect the project, as online meetings were held to agree on the structure and contents of the three courses.

| Task 2.2 Support WP leader in analysing needs for updating teaching material | Based on the course descriptors developed in task 2.1, all partners contributed to the development of the course material for the 3 courses. The course material includes 13 sets of slides for each course and a course manual containing 13 chapters.
Preliminary revisions and plagiarism tests were carried out and the final version of the training material was delivered in June 2021.
The final version of the three curricula was evaluated by expert evaluators in each of the topics. These expert evaluators do not belong to any of the project's partner institutions.
After receiving the evaluators' responses, three reports on the quality of the courses were produced. | Based on the course descriptors developed in Task 2.1, all partners contributed to the development of the course material for the 3 courses. For each course, the training material includes 13 sets of slides and a notebook consisting of 13 chapters. The training material was subjected to two levels of evaluation: plagiarism detection and quality assessment.
The course material was also reviewed by expert evaluators in each of the topics that were selected from outside the consortium institutions.
With the evaluation responses of the experts, a quality report was produced for each of the courses (see annex 6, 7 and 8). | Delivered | 15/6/2021 | |

2. Deliverables

Deliverable #	Specific and measurable indicators	Comments	Current Status	Deadline for Submission (according to contract)	Deviation of working or time schedule and technical corrective action
DEV 2.1. Report on teaching objectives and materials' outline	Report on the course descriptors of the three courses elaborated (including teaching objectives, course outline and workload distribution for the development of the teaching material)	A report on teaching objectives and materials' outlines is available in IREEDER repository. The document, written by the WP2 leader, provides for each course the following contents aims and objectives, learning outcomes, the course's contents scheduled per week (for a total of 13), teaching, learning and assessment strategy, bibliography. The results of the surveys carried out during the WP1 has been taken into consideration and included in the report as	Achieved	14/6/2020	

		suggestions for the elaboration of the new courses.			
DEV 2.2. Teaching materials	n. 13 sets of lecture slides and lecture notes for the IoT course. n. 13 sets of lecture slides and lecture notes for the RE course. n. 13 sets of lecture slides and lecture notes for the CS course.	The teaching material is divided into 13 PowerPoint presentations and one lecture note for each course. The teaching materials for the three courses developed have been reviewed by expert evaluators from outside the project partner institutions. A report (see annex 6, 7 and 8) on the evaluation of the expert evaluators have been produced for each of the courses. n.1 CS evaluation teaching materials n.1 IoT evaluation teaching materials n.1 RE evaluation teaching materials	Achieved	15/6/2021	

3.3 General overview of WP3

Work package 3 aims to develop a training and staff development programme in these fields (IoT, CS, RE). Three laboratories were established in three Jordanian universities as follows:

- The IoT lab was established at Al-Hussein Bin Talal University (AHU).
- The CS lab was established at Tafila Technical University (TTU).
- The RE lab was established at Mutah University (MU).

In addition, it is intended to install a server for a remote laboratory with virtual laboratory software at each Jordanian partner university. The Jordanian partners were responsible for issuing a tender (with the help of all partners and under the supervision of the coordinator) to announce the need to build the necessary equipment to purchase and deliver the laboratory components.

Deliverable 3.1. The IREEDER Capacity Development Plan includes the project capacity development concept, the implementation structure, the monitoring and evaluation framework and the implementation process. The main conditions for the successful implementation of the project activities and the achievement of the results are the development of new and updated teaching material, the installation of new laboratories and the training of trainers and students.

Deliverable 3.2 (Identification of the general equipment of the laboratories) was delivered on 15th June 2020. In general, Deliverable 3.2 follows the objectives and didactic materials (determined in WP2), identifies the practical training needs, and defines the laboratory equipment to be designed by the Jordanian partners. This report includes all information concerning the three laboratories and a detailed description of the devices.

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WP3	CAPACITY BUILDING AND TRAINING OF TRAINERS				
WP Leader	Andreas Kazantzidis (UPAT)				
REPORTING PERIOD	15/11/2020 - 15/11/2021				
WP3 Overall Progress	The main goal of the WP3 is to develop local competences of trainers and students on IoT, CS and RE. For this purpose, three different training workshops will be organized at the European Universities, three new laboratories will be installed for integrating the theoretical approach with practical experiences, further three training Workshops will be held in Jordan for local stakeholders and final beneficiaries (students and teaching staff).				
1. Tasks					
Activity #	**Brief description of activity delivered**	**Comments**	**Status**	**End of task [dd/mm/yyyy]**	**Anticipated Risks**
Task 3.1 Take part in developing the long-term capacity building plan	The capacity building plan of IREEDER (D3.1) was elaborated. The document considers the 3 main goals of the project: teaching materials preparation, labs installation and staff training, all of them in the areas of IoT, CS and RE. The long-term aspect was considered, and it is expected the plan will be used also after the end of the project.	Consortium worked in the elaboration and approval of a Capacity Building Plan. The main goal is to assure the achievement of the main three goals of the project: teaching materials elaboration, labs installation and staff training, all of them in the 3 areas of IoT, CS and RE. Partners have considered the impact of the project results in short/medium and long time, identifying the conditions for assuring the future sustainability of the actions. Task has been concluded on time.	Delivered	15/11/2020	R3.1: Staff may be prevented from leaving the region at the planned time due to difficulties in obtaining visas and permits from their universities. The pandemic has stopped any type of mobility, for students and staff. Online meetings have been organised to ensure the development of the project activities. R3.2: Laboratory equipment costs more than the allocated budget, making it
Task 3.2 Set up the IREEDER laboratories in Jordan	The list of the laboratories' equipment (D3.2) was finalized by all partners. The equipment for the IoT lab, CS lab and RE labs were selected based on the real needs, expected cost and availability in the Jordanian market. Another set of equipment has been also prepared for equipment to	The first stage of Task 3.2 consists of the analysis of the Jordanian partners' laboratories, the identification of needs in terms of devices and infrastructure, and the elaboration of a detailed list of equipment to be procured. The final list of equipment was finalised in June 2020. The list also includes devices to facilitate remote access between all partners. The list was	Delivered	14/3/2021	

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			Current Status		
	facilitate remote access among all JO partners.	approved by the ERASMUS+ officer on 22nd July 2020.			necessary to seek alternative funding.
	Installation of IREEDER laboratories	The second task consists of the purchase of the equipment and its installation. The latter activity was greatly affected by the pandemic. As a result, the documents for the public announcements were prepared late.	Ongoing	14/11/2021	There is no evidence of this type of problem in the purchase of equipment.
Task 3.3 Help Jordanian universities set the criteria of selection of staff		Not yet accomplished Task3.3: the activity is foreseen for the beginning of the third year	Planned	15/11/2021	
Task 3.4 Host three trainees from each Jordanian university for a period of five days		Not yet accomplished Task 3.4: the activity is foreseen for the beginning of the third year	Planned	15/12/2021	
Task 3.5 Work on the establishment of the laboratories and organize a national workshop about IoT, CS and RE	The tendering process has been finalised for the laboratories. There has been a delay caused by COVID circumstances.	Task 3.5: the organization of the National Workshop about IoT, CS and RE is foreseen for April 2022	Planned	15/4/2022	

2. Deliverables					
Deliverable #	**Specific and measurable indicators**	**Comments**	**Current Status**	**Deadline for Submission (according to contract)**	**Deviation of working or time schedule and technical corrective action**
DEV 3.1. Development of a capacity building plan	Capacity Building plan of IREEDER was finalized (D3.1)	The IREEDER capacity development plan includes the project capacity development concept, the implementation structure, the monitoring and evaluation framework and the implementation process.	Achieved	15/11/2020	

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		The main conditions for the successful implementation of the project activities and the achievement of the results are the development of new and updated teaching material, the installation of new laboratories and the training of trainers and students.		
DEV 3.2. Identification of general equipment of laboratorieS	List of equipment for the IoT lab. List of equipment for the RE lab. List of equipment for the CS lab. List of equipment for Remote Access. Equipment approved by EACEA. Official communication for the approval of the equipment.	This report includes all information concerning the three laboratories and a detailed description of the devices. Real Delivery Date: 15-06-2020 (anticipated as suggested by the National Officer).	Achieved	15/3/2021 15-06-2020 (anticipated as suggested by the National Officer)
DEV 3.3. Training workshops in EU and training reports	IoT Training Workshop	The IoT training workshop was organised by the UCLAN and took place between 17-28 June virtually (Microsoft equipment) due to travel restrictions caused by COVID 19. The sessions were organised with the participation of 7 IoT experts from the European partner universities of the project. All sessions were attended by 15-20 participants.	Partially achieved	
	CS Training Workshop	The CS training workshop was organised by the UVigo and took place between 20th and 30th September in a virtual way (Microsoft teams) due to travel restrictions caused by COVID 19. Fifteen two-hour sessions were organised with the participation of 7 cybersecurity experts from the European partner universities of the project. All sessions were attended by between 15 and 20 participants.	Partially achieved	
	RE Training Workshop	Panned to be in November 2021	Planned	

DEV 3.4. Training Workshops in Jordan	3 training workshops held at AHU, TTU and MU For each training workshop: - Agenda - List of participants - PowerPoint presentations - Other training materials - Photos	Panned in the third year	Planned	15/4/2021	

Tendering Process

	IoT Tender AHU	CS Tender TTU	RE Tender MU	PCs, Data Servers Tender for all partners (fourth Tender)
Tendering document prepared	ACHIEVED	ACHIEVED	ACHIEVED	ACHIEVED
Public advertisement published	ACHIEVED	ACHIEVED	ACHIEVED	ACHIEVED
Offers received	Three offers	Only two offers (After two calls)	Five offers	Three offers (after 3 calls)
Supplier(s) selected	ACHIEVED	ACHIEVED	ACHIEVED	ACHIEVED
Contract signed	ACHIEVED	ACHIEVED	ACHIEVED	ACHIEVED

	AHU IoT lab, 17 PCs, 1 Server, Data show	TTU CS lab, 1 PCs, Data show	MU RE lab, 16 PCs, 1 Server, Data show	PU 16 PCs, Data show	IU 16 PCs, Data show
Equipment delivered	Only IoT lab	Only CS lab	Only RE lab	NOT YET	NOT YET
Laboratory installed	Only IoT lab	Only CS lab	Only RE lab	NOT YET	NOT YET
Devices tested	Only IoT lab	Only CS lab	Only RE lab	NOT YET	NOT YET

IoT Tendering	Internet of Things Laboratory at AHU		
Responsible of task	Moath Alsafasfeh		
Summary of Tendering Process			
Action	Date	Supporting documents	Comments
The equipment list of IoT lab has been identified by the project consortium in D3.2	15/6/2020	The identified equipment list of the IoT lab	
The equipment list of the IoT lab has been approved by the Project Officer EACEA	22/7/2020	Approved list from EACEA	

The tendering process has been initialized at AHU	11/8/2020	IREEDER representative request to start tendering process	
The decision of publishing the tender on AHU website and local newsletters	8/11/2020	The decision of publishing the tender	
The technical committee has selected one offer	2/3/2021	Technical committee recommendations	Three offers have been received
The final IoT equipment list sent to the selected supplier	20/4/2021	The final decision of the tendering committee	The total cost is 27.885,5€ and the installation period is set to 90 days
The supplier could deliver the equipment based within the supply period	26/7/2021	Supplier delivery receipt	
The total tender cost (27.885,5€) euro has been paid in a check to the supplier	23/9/2021		

RE Tendering	Renewable Energy Laboratory at MU		
Responsible of task	**Ziyad Altarawneh**		
Summary of Tendering Process			
Action	**Date**	**Supporting documents**	**Comments**
The equipment list of RE lab has been identified by the project consortium in D3.2	15 June 2020	The equipment list of RE lab	
The equipment list of the RE lab has been approved by the Project Officer EACEA	22 July 2020	Equipment lists approved list from EACEA	
The tendering process has been initialized at MU	9 August 2020	A request forms the contact person to start the tendering process	
	16 September 2020	The tender as formulated by the tendering department	The Tender technical specifications have been sent to Tendering department at MU

The first RE public tender has been announced	06 October 2020	The RE tender as appeared in one of the Jordanian Newspapers	The tender document has five items: - Items (1 to 4) are related to lab hardware equipment/devices and remote lab software - Item no.5 in Educational Software - For Hardware lab equipment (Items (1 to 4) five offers have been received. - For Educational Software (PSIM software) three offers have been received.
The technical committee has evaluated the offers and finalized their recommendation report	3 Dec 2020	Technical committee recommendations	For Items (1-4): among the five companies only two companies their offer met the tender specifications namely: Technology Integration Company, and Spectrum Scientific Company For Item no.5: only two companies submitted for this item: namely: Syts for Technology & Advanced Systems Company and Spectrum Scientific Company. Five companies have submitted for this bid: - Syts for Technology & Advanced Systems Company - International Engineers for Trading Company - Spectrum Scientific Company - Technology Integration Company - Isfahan International Trade Company Among the received offers (five offers), three offers have met the required specifications as follows: - Technology Integration Company/offer 1 (total cost: 45.000€, all items included) - Technology Integration Company/offer 2 (total cost: 43.000€, all items included) - Spectrum Scientific Company (total cost: 128.600€, all items included) The technical committee has recommended selecting:

			- The Technology Integration Company/offer 2 for the item (1-4) with a cost equal to 45.000€ because it has more features compared to offer 1 from Technology Integration Company. - Syts for Technology & Advanced Systems Company offer Educational Software (PSIM software) at a cost of 4.530€. Because it meets the requirement and has the lowest price.
The final resolution sent to the selected supplier	03 January 2021	The final decision of the tendering committee	The total cost is 49.530€ and the installation period is set to 12 weeks
The RE lab's equipment has been received	08 April 2021	Photos	All items have been received
The lab installation has been finalized	17 June 2021	Photos	All items have been handed over, tested, and operated
The supplier has been paid	5 July 2021	Invoices	Technology Integration Company has received 45.000€. Syts for Technology & Advanced Systems Company has received 4.530€

CS Tendering	Cyber security Laboratory at TTU		
Responsible of task	**Ahmad Aljaafreh**		
Summary of Tendering Process			
Action	**Date**	**Supporting documents**	**Comments**
The equipment list of CS lab has been identified by the project consortium in D3.2	15/6/2020	The identified equipment of CS lab	
The equipment list of the CS lab has been approved by the Project Officer EACEA	22/7/2020	Approved list from EACEA	
The tendering process has been initialized at TTU	6/9/2020	IREEDER representative request to start tendering process	
The first CS public tender has been announced	13/9/ 2020	The first CS tender	Only two offers have been received and hence it has been repeated

The second CS public tender has been announced	5/10/2020	The second CS tender	
The technical committee has selected one offer	29/11/2020	Technical committee recommendations	Two offers have been received as follows: - Al-Fayhaa Scientific and Laboratory Equipment company (total cost: 51.959€, all items included) - Matrix business technology company (total cost: 66.785€, all items included) The technical committee has recommended selecting the Al-Fayhaa Scientific and Laboratory Equipment company because its offer is the lowest price with highest quality. Notes: 1. The number of PCs has been reduced to 15 (total cost is 7.500€) 2. The number of management switches has been reduced to 2 (total cost is 6.556€) 3. 2.700€ discount on the total
The final CS equipment list sent to the selected supplier	15/12/2020	The final decision of the tendering committee	The total cost is 51.959€ and the installation period is set to 90 days
The CS lab's equipment due time	8/3/2021		
The supplier could not deliver the equipment based within the supply period	7/4/2021	The company supplying the equipment sent a document justifying the delay in the delivery and installation of the equipment. This document is written in Arabic.	
The supplier has delivered the equipment	25/10/2021		

3.4 General overview of WP4

For this second quality report, the QMC monitored and assessed the quality of the project's expected results against the established qualitative and quantitative progress indicators. Its focus was the evaluation of the analytical materials produced by the project consortium in the framework of the work packages. Each QMC contact person was also in charge of disseminating the QAP in their institutions, following the daily activities using the work plan and the logical framework matrix as reference documents. The project results monitored and evaluated by the QMC in this period were:

- WP2 / Deliverable 2.2: Teaching materials

The main objective of deliverable 2.2 is the elaboration of the teaching materials for the training and teaching activities. Within WP2, the learning objectives and the general contents of the teaching materials were defined. The teaching material is divided into PowerPoint presentations (13 for each course corresponding to the thematic chapters) and 3 Lecture Notes, one for each course. For all three courses, 13 PowerPoint presentations and Lecture notes are ready and under final quality control. In addition, all teaching materials produced for the three courses were evaluated by expert evaluators in the three topics (RE, IoT and CS) who are not part of the project partner institutions.

- WP3 / Deliverable 3.1: Development of a capacity-building plan

The IREEDER capacity building plan includes the project capacity development concept, the implementation structure, the monitoring and evaluation framework and the implementation process. The main conditions for the successful implementation of the project activities and the achievement of the results are the development of new and updated teaching material, the installation of new laboratories and the training of trainers and students.

- WP6 / Deliverable 6.1. Development of a dissemination plan

The Dissemination Plan focuses on strategies and tools for external communication, towards stakeholders and final beneficiaries. The document includes dissemination goals and objectives, roles of partners, target groups and stakeholders, a list of dissemination tools (website, social media, newsletter, events, etc.).

- WP7 / Deliverable 7.1.3: Third Plenary Virtual Meeting minutes

The minutes summarise the meeting of the third plenary (virtual meeting) of the IREEDER project held on 25th February 2021, divided into two sessions. It was held online via Microsoft Teams.

The first session (10:30- 13:00) included a welcome message from the coordinator, Dr. Saud Althunibat, and a summary of the progress of the work of both WP2 and WP3. The second session (16:00 - 18:00) included a summary of the progress of work for WP4, WP6 and WP7.

- WP7/ Deliverable 7.1.4: Fourth Plenary Virtual Meeting minutes

The minutes summarise the details of the fourth plenary (virtual meeting) of the IREEDER project that took place on 29th July 2021. This fourth meeting was conducted online via Microsoft Teams.

The meeting included a welcome message from the coordinator; Dr. Saud Althunibat, followed by a summary of the interim technical and financial reports and comments received from the external evaluation of the project. The progress of work package 3 was also summarised, especially the training workshops and tendering processes. The WP5 work plan has also been explored and discussed in the meeting.

- WP7/ The interim report

The interim report was submitted on 1st July 2021. Following the submission of the Technical Implementation Report, EACEA reviewed the performance of the partnership in terms of effective implementation of the project considering this report, but also EACEA's monitoring since the beginning of the eligibility period. The implementation of the project must not only respect the requirements of the CBHE but must also be in line with the original proposal included in Annex I of the Grant Agreement. In this context, the project implementation has been rated as GOOD by the EACEA.

WP4 Overall Progress	QUALITY ASSURANCE
WP Leader	Felipe Gil Castiñeira (UVigo)
REPORTING PERIOD	15/11/2020 - 15/11/2021
WP 4 Overall Progress	Work Package 4 aims to establish a specific monitoring and evaluation system to provide regular and clear information on the development of the project activities and the results obtained. A Quality Monitoring Committee was appointed with the participation of the European partners and an external evaluator was selected.

1. Tasks

Activity #	Brief description of activity delivered	Comments	Status	End of task [dd/mm/yyyy]	Anticipated Risks
Task 4.1 Forming the quality monitoring committee	The Quality Management Committee was established at the kick-off meeting held at the AHU on 3-4 February 2020. QMC is composed of a senior representative of all partners and Jordanian and European institutions. The Committee worked at the elaboration of the IREEDER Quality Plan which includes the Quality Management Committee members, the description of the internal monitoring and quality activities (qualitative and quantitative indicators), the Quality Assurance Tools and the Risk Management Plan.	This task was completed according to schedule during the kick-off meeting (February 2020).	Delivered	14/6/2020	R4.1: weak participation from partners and the state of carrying out the project itself. The partners have demonstrated active participation in the monitoring activities by providing the requested contribution on time. The work package managers filled in the information in the monitoring tables and delivered the documents on time.

Task 4.2 Preparing the annual quality assurance reports	The first and second annual quality assurance reports assessed the progress of the IREEDER project, in particular, the activities to achieve the project objectives. The first report was prepared by the QMC and delivered on 15th November 2020 and the second report was also prepared by the QMC and delivered on 15th November 2021. These reports will report on the overall implementation of the project activities as well as on the development and implementation of the curricula.	The third annual quality assurance report will be delivered in the third year of the project (November 2022).	Ongoing	14/11/2022	
Task 4.3 Recruiting the external evaluator	The hiring of an external evaluator following an open call and a selection process. The selected external evaluator is responsible for the external evaluation of the project and for the elaboration of the external evaluation reports at mid-term and in the final phase of the project.	The public announcement for the selection of the External Evaluator was published in November 2020. The delay is justified by the necessity to find a person with proven experience in the management and evaluation of European projects and competencies in the three topics of IREEDER (IoT, CS and RE). The contract was signed in March 2021. For this reason, the Task is affected by a delay of 8 months.	Delivered	14/11/2022	

| Task 4.4 Facilitating the tasks of the external evaluator | The QMC has provided the external evaluator with all partner contacts and all documents developed to facilitate the evaluation process.
The project coordinator has supported the External Evaluator by providing a PowerPoint presentation on the status of the project, informing the StC and SSC members about the new engagement, sharing the contacts of the Quality Monitoring Committee members. | The implementation of this task has been delayed due to the delay in the recruitment process of the external evaluator. This has resulted in a delay of two months in the production and delivery of the external evaluator's report. | Ongoing | 14/11/2022 | |

2. Deliverables

Deliverable #	Specific and measurable indicators	Comments	Current Status	Deadline for Submission (according to contract)	Deviation of working or time schedule and technical corrective action
DEV 4.1. The first annual quality-assurance report	The first annual quality-assurance report has been delivered	Delivered according to schedule (15th November 2020)	ACHIEVED	15/11/2020	In November 2020, a public announcement was made for the selection of the External Evaluator. The delay is explained by the need to identify someone with proven experience in the management and evaluation of European projects, as well as experience in the three IREEDER topics (IoT, CS and RE). A contract was signed in March 2021. As a result, the task will be delayed by eight months.
DEV 4.2. The second annual quality-assurance report	The second annual quality-assurance report has been delivered	Delivered according to schedule (15th November 2021)	ACHIEVED	15/11/2021	
DEV 4.3. The third annual quality-assurance report		Not yet delivered. Planned delivery date (15th November 2022)	Not yet achieved	15/11/2022	The implementation of task 4.3 has been delayed due to the delay in the recruitment process of the external evaluator. This has resulted in a delay of two months in the production and delivery

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DEV 4.4. The mid-term evaluation report	Mid-term evaluation Report by the External Evaluation Expert	Due to the delay in hiring the external evaluator (30-5-2021)	ACHIEVED	15/4/2021	of the external evaluator's report (DEV 4.4).
4.5. The final evaluation report	Final evaluation Report by the External Evaluation Expert	Not yet delivered. Planned delivery date (15th November 2022)	Not yet achieved	15/11/2022	

3.5 General overview of WP5

WP5	EXPLOITATION OF RESULTS AND SUSTAINABILITY PLAN				
WP Leader	Jonathan Rodriguez (IT)				
REPORTING PERIOD	15/11/2020 - 15/11/2021				
WP5 Overall Progress					
1. Tasks					
Activity #	**Brief description of activity delivered**	**Comments**	**Status**	**End of task [dd/mm/yyyy]**	**Anticipated Risks**
Task 5.1 Elaborate a sustainability plan		WP/Task has not started yet	Planned	14/1/2022	
Task 5.2 Adopting the teaching materials at Jordanian partners		WP/Task has not started yet	Planned	14/11/2022	
Task 5.3 Regularly updated following the project implementation depending on the institutional, social, economic, and technological viabilities		WP/Task has not started yet	Planned	14/11/2022	
Task 5.4 Setting up the e-learning module		Not yet commenced	Planned	14/11/2022	
Task 5.5 Supervising final-year graduation projects in IREEDER topics		A set of graduation projects related to the IREEDER topics (RE, IoT and CS) has been initiated in the JO partners.	Planned	14/11/2022	
2. Deliverables					
Deliverable #	**Specific and measurable indicators**	**Comments**	**Current Status**	**Deadline for Submission (according to contract)**	**Deviation of working or time schedule and technical corrective action**

DEV 5.1. Elaboration of the sustainability Plan	n. 1 Sustainable Plan elaborated and approved		Not yet achieved	15/1/2022	No deviation as all tasks and deliverables of WP5 are planned to be conducted/delivered in the third year of the project.
DEV 5.2. Students Training	n. 1 Training Workshop at each university at each semester At least n. 20 students enrolled in each workshop At least n. 20 reports on experimental activities carried out by the students		Not yet achieved	14/11/2022	All the activities of this WP will take place in the third year of the project (between 15-11-2021 and 14-11-2022).
DEV 5.3. Setup E-Learning Module	n. 1 e-learning technology selected and set up on the official website of the project n. 1 list of registered users (at least n. 100) n. 1 report on the annual accesses at the e-learning area (at least n. 100 per year)		Not yet achieved	15/7/2022	
DEV 5.4. Final Year Graduation Projects	n. 1 list of graduation projects (at least n. 15) n. 1 list of high calibre students selected (at least n. 30, n. 6 from each Jordanian University) n. 15 technical reports on graduation projects		Not yet achieved	15/11/2022	

Accreditation Process

Jordanian Universities	Main steps for the accreditation/approval of the new courses	IoT course	CS course	RE course
AHU	Request of accreditation/approval submitted	Achieved	Achieved	Achieved
	Request of review of the submitted syllabus received	Achieved	Achieved	Achieved
	Review submitted	Achieved	Achieved	Achieved
	Official communication of approval received	Achieved	Achieved	Achieved
MU	Request of accreditation/approval submitted	Achieved	Achieved	Achieved
	Request of review of the submitted syllabus received	Achieved	Achieved	Achieved
	Review submitted	Achieved	Achieved	Achieved
	Official communication of approval received	Achieved	Achieved	Achieved
TTU	Request of accreditation/approval submitted	Achieved	Achieved	Achieved
	Request of review of the submitted syllabus received	Achieved	Achieved	Achieved
	Review submitted	Achieved	Achieved	Achieved
	Official communication of approval received	Achieved	Achieved	Achieved
PU	Request of accreditation/approval submitted	Achieved	Achieved	Achieved
	Request of review of the submitted syllabus received	Achieved	Achieved	Achieved
	Review submitted	Achieved	Achieved	Achieved
	Official communication of approval received	Achieved	Achieved	Achieved
ISRA	Request of accreditation/approval submitted	Not yet	Not yet	Not yet
	Request of review of the submitted syllabus received	Not yet	Not yet	Not yet
	Review submitted	Not yet	Not yet	Not yet
	Official communication of approval received	Not yet	Not yet	Not yet

Accreditation Final Updates (25/09/2021)

Mutah University

Course	Department	Program	Action taken
Renewable Energy systems	Electrical Engineering	Power and Control Engineering	Updating existing course
Introduction to Internet of Things	Electrical Engineering	Power and Control Engineering	Added as a new course in the study plan
Introduction to Internet of Things	Electrical Engineering	Communications Engineering	Added as a new course in the study plan
Introduction to Internet of Things	Computer Engineering	Computer Engineering	Added as a new course in the study plan
Introduction to Cyber Security	Computer Engineering	Computer Engineering	Added as a new course in the study plan

Philadelphia University

Course	Department	Program	Action taken
Introduction to Renewable Energy	Electrical Engineering	Electrical Engineering	Updating existing course
Internet of Things	Electrical Engineering	Communications and Electronic Engineering	Added as a new course in the study plan
Cyber Security	Electrical Engineering	Communications and Electronic Engineering	Added as a new course in the study plan
Internet of Things	Mechatronics Engineering	Mechatronics Engineering	Added as a new course in the study plan

Al-Hussein Bin Talal University

Course	Department	Program	Action taken
Renewable energy	Electrical Engineering	Electrical Engineering	Updating existing course
Renewable energy	Mechanical Engineering	Mechanical Engineering	Updating existing course
Introduction to Internet of Things	Computer Engineering	Computer Engineering	Added as a new course in the study plan
Introduction to Internet of Things	Communications Engineering	Communications Engineering	Added as a new course in the study plan
Introduction to Internet of Things	Computer Engineering	Network Security Engineering	Added as a new course in the study plan
Introduction to Internet of Things	Electrical Engineering	Electrical Engineering	Added as a new course in the study plan
Introduction to Cyber Security	Communications Engineering	Communications Engineering	Added as a new course in the study plan
Introduction to Cyber Security	Computer Engineering	Computer Engineering	Added as a new course in the study plan

Isra University

Course	Department	Program	Action taken

Tafila Technical University			
Course	**Department**	**Program**	**Action taken**
Renewable energy	Mechanical Engineering	Mechanical Engineering	Added as a new course in the study plan
Renewable energy	Electrical Engineering	Power Electrical Engineering	Updating existing course
Renewable energy	Electrical Engineering	Mechatronics Engineering	Updating existing course
Renewable energy	Electrical Engineering	Integrated Renewable Energy Engineering	Updating existing course
Introduction to Internet of Things	Communication, electronic and Computer Engineering	Computer Engineering	Added as a new course in the study plan
Introduction to Internet of Things	Communication, electronic and Computer Engineering	Smart Systems Engineering	Added as a new course in the study plan
Introduction to Cyber Security	Communication, electronic and Computer Engineering	Computer Engineering	Added as a new course in the study plan
Introduction to Cyber Security	Communication, electronic and Computer Engineering	Computer Engineering	Updating existing course

3.6 General overview of WP6

WP6	DISSEMINATION			
WP Leader	**Ziyad Al Tarawneh (MU)**			
REPORTING PERIOD	**15/11/2020 - 15/11/2021**			
WP6 Overall Progress	WP6 aims at disseminating the activities and results of the IREEDER project. For this purpose, a dissemination plan was developed, informing about the main strategies for internal and external communication. Promotional materials were also designed and produced. Two main dissemination workshops will be held in MU and PU, and local dissemination events will be organised also after the end of the project.			

1. Tasks

Activity #	Brief description of activity delivered	Comments	Status	End of task [dd/mm/yyyy]	Anticipated Risks
Task 6.1 Prepare the dissemination plan	The IREEDER Dissemination Plan (D6.1) has been finalized by MU with the help and contributions from all partners. It includes the dissemination activities which will be carried out by the project partners to ensure the effective promotion and exploitation of the project results. The approved final version is uploaded on the project website.	As reported in the Dissemination Plan, the document was elaborated by the SSC and outlines the activities which will be carried out to assure the promotion and exploitation of project results. Following the recommendation of the National Erasmus Officer, the elaboration of the Dissemination Plan was shifted earlier. The document was finalized on January 15th, 2021, instead of June 15th, 2021 (five months before the planned deadline). This decision has allowed to implement a communication strategy and to elaborate the communication tools from the beginning of the project, supporting its local impact.	Delivered	14/6/2021 Real Delivery Date: 15/01/2021	R6.1: lack of interest in the target group. The is no evidence of the weak interest of the local stakeholders in the project
Task 6.2 Produce and distribute the promotion materials	In order to increase public awareness and use of IREEDER outcomes, as well as to ensure high visibility of project	Once approved the dissemination plan, consortium has worked in the elaboration of the promotional materials. The official website of IREEDER project is online to the following link: http://ireeder.ahu.edu.jo/.	Ongoing	14/11/2021	

	outcomes among target groups and stakeholders, the IREEDER teams recently completed a variety of activities, including a live radio interview about IREEDER, the development of a promotional video and online introductory lectures held at various Jordanian universities along with the development and distribution of several newsletters which are made available on the official project website and circulated via Facebook and LinkedIn to make promotional materials accessible to a broader and diverse audience. -The creation of project website and its related social media platforms -Design of the project logo -Develop and produce promotion materials for the kick-off meeting (in English language) -IREEDER team at AHU prepared a promotional video about IREEDER project. - A live radio interview was held at Saout aljanoub radio station about IREEDER.	During the life of the project, the Consortium have carried out the following promotional activities: live radio interviews, production of a promotional video, online introductory lectures in Jordanian universities. Specific pages on two social media, Facebook, and LinkedIn, have been opened. The official logo was designed from the beginning of the project and has been used in all official and public communication. A live radio interview was held at Saout aljanoub radio station. Three newsletters have been elaborated. A YouTube channel has been created and continuously updated with videos relevant to the IREEDER project. http://ir.gl/650835			

	- Online IREEDER Introductory Lectures were held at different Jordanian partners. - 3 bi-annual newsletters were developed and distributed among partners, social media.				
Task 6.3 Update the website contents	The website of the project represents one of the key platforms and resources for disseminating and promoting the IREEDER project to a larger and diverse audience. The official website of the IREEDER project is available on the Internet and can be accessed at http://ireeder.ahu.edu.jo/. The website is used to proactively disseminate the overall aim, specific targets, objectives, and outcomes of the IREEDER project. In addition to project-related content, it includes content on upcoming activities, relevant news, and downloadable material (including meeting presentations, training materials, newsletters, etc.). During the lifespan of the project, the IREEDER website is updated on a regular basis and	The IREEDER website has been designed and opened on time (within the first 2 months of the project).	Ongoing	14/11/2022	

	updated for at least one year after the project is complete.				
Task 6.4 Organize institutional events and two dissemination workshops		The opening of RE lab at MU on 7July 2021. The news about the opening of the RE lab was covered by different local electronic newspapers and the project social media, other Dissemination events are foreseen during the third year	Ongoing	15/6/2022	
Task 6.5 Participate in other local dissemination events at the EU partners		Task6.5: All Jordanian partners have participated (online) in the introductory lectures held at different Jo universities, the participation in other local dissemination events at the EU partners has been affected by the COVID19 restrictions	Ongoing	15/11/2022	

2. Deliverables

Deliverable #	Specific and measurable indicators	Comments	Current Status	Deadline for Submission (according to contract)	Deviation of working or time schedule and technical corrective action
DEV 6.1. Development of dissemination plan	The dissemination plan (D6.1) has been finalized	The Dissemination Plan is focused on the strategies and tools for external communication, towards stakeholders and final beneficiaries. The document includes the dissemination goals and objectives, the roles of the partners, target groups and stakeholders, a list of the dissemination tools (website, social network, newsletter, events, etc.). IREEDER stakeholders have been identified in n. 6 categories: 1) Students of electrical engineering and related programmes, 2) Academic staff, 3) Industrial partners and companies working in the field of RE, CS and Io, 4) Industries and companies working in other fields, 5) Agricultural Institutions and 6) society in general. For this purpose, a stakeholders Contact list has been elaborated. The Mailing list saved in the repository counts n. 90 contacts.	Achieved	15/6/2021 Real Delivery Date: 15/01/2021	Task 6.1 As a result of a recommendation from the National Erasmus Office during a monitoring visit in September 2020, the Dissemination plan has been shifted earlier. The dissemination plan was supposed to be given on June 15,

DEV 6.2. Communication plan and promotion materials	n.1 logo n.1 brochure of IREEDER project (English and Arabic) n.1 IREEDER promotional video (English and Arabic) n.3 bi-annual IREEDER Newsletter		Partially achieved	15/11/2021 Real Delivery Date: Logo (30-11-2019) Brochure (15-1-2020) Video (12-2020) Newsletter (issue 01-07-2020, issue 02-12-2020, issue 01-06-2021)	2021; however, it was provided on January 15, 2021. Task 6.2 Due to the current COVID19 pandemic situation, all project brochures, newsletters are issued in digital versions (in a PDF file format) and available on the official project website. A portion of this task has been already achieved while others are still in progress. Task 6.3 no deviation Task 6.4 no deviation
DEV 6.3. The first dissemination workshop	n. 1 dissemination Workshop held at MU n. 1 agenda n. 1 list of invited stakeholders n. 1 list of registered attendees n. 5 PowerPoint presentations n. 1 IREEDER network	The first Dissemination Workshop is foreseen for the third year	Not yet achieved	15/6/2022	
DEV 6.4. The second dissemination workshop	n. 1 dissemination Workshop held at PU n. 1 agenda n. 1 list of invited stakeholders n. 1 list of registered attendees n. 5 PowerPoint presentations n. 1 IREEDER network updated	The second Dissemination Workshop is foreseen for the third year	Not yet achieved	15/11/2022	

3.7 General overview of WP7

WP7 is led by the project Coordinator institution AHU and aims at ensuring the best implementation of all project activities as planned in the project proposal. Also, WP7 is responsible for the budget allocation and different expenses induced in the project activities. The project coordinator, AHU, represents the whole project consortium in front of the EACEA agency and the project officer. As such, AHU is in charge of preparing the midterm and final technical and financial reports to be submitted to the EACEA. In the framework of WP7, there are three main deliverables listed below:

- D7.1 IREEDER Plenary meeting:

As planned in the project proposal, the project consortium will meet seven times, where a plenary meeting will be held around every six months. The first meeting was the kick-off meeting which was held in AHU (Jordan) on 3rd-4th February 2020. In this kick-off meeting, activities related to project initializations (WP1) have been finalized such as partnership agreements, committees forming, building operational staff and discussing the initial results of WP1.

The second plenary meeting was to be held in June 2020 however, it has been moved to 9th September 2020 and has become a virtual meeting due to the travel restriction caused by the COVID-19 pandemic. The WP leaders presented the progress of the work of the functioning WPs, especially WP2, WP2, WP4 and WP7. They also discussed measures to be taken to overcome the travel restriction in upcoming activities, including training and meetings.

The third plenary meeting held on 25th February 2021 was a virtual meeting due to the travel restriction situation caused by Covid 19. The WPs leaders presented the progress of the work of the WPs in progress, especially in WP2 and WP3. This meeting also gave a summary of the progress of the work of the WP4, WP6 and WP7 work packages.

The fourth plenary meeting held on 29th July 2021 was a virtual meeting due to the travel restriction situation caused by the COVID-19. The meeting included a summary of the interim technical and financial reports and comments received from the external evaluation of the project. The progress of WP3, especially the training workshops and tendering processes, was also summarised. The work plan for WP5 was also reviewed and discussed at the meeting.

- D7.2 IREEDER Website and Communication Platform

The official project website (http://ireeder.ahu.edu.jo/) was launched in December 2019. It includes most of the public details about the project, the deliverables, news, activities, and results. Also, a reciprocity file folder has been set up with the help of the IT partner to share the project documents among the partners, where each partner can exchange files through it.

- D7.3 Financial Auditing Report

The financial auditing report will be elaborated by an external auditor with the help of the project coordinator by the end of the project.

Apart from WP7's deliverables, AHU is managing the whole project budget to ensure the right expenses aspect as planned in the proposed budget.

The midterm technical and financial reports were delivered to EACEA on 1st July 2021. Overall evaluation of "Good" has been made by EACEA. The request for the second payment from EACEA is being prepared.

WP7 Overall Progress	MANAGEMENT				
WP Leader	**Saud Althunibat (AHU). Project Coordinator and WP7 Leader**				
REPORTING PERIOD	**15/11/2020 - 15/11/2021**				
WP7 Overall Progress	The WP7 aims at setting the framework for the efficient management of the IREEDER project.				
1. Tasks					
Activity #	**Brief description of activity delivered**	**Comments**	**Status**	**End of task [dd/mm/yyyy]**	**Anticipated Risks**
Task 7.1 Act as a contact point between EACEA and all partners involved in the project	AHU as a coordinating institution of the IREEDER project has been in contact with the project partner and the project officer (EACEA) to update both sides about necessary actions, comments, and milestones. AHU has signed the project agreement and transferred all the programme regulations and rules that must be followed in managing the grant.		Ongoing	14/11/2022	R7.1: Project schedules are not respected. To date, most of the project activities have been completed on time, respecting the planned schedule of activities.
Task 7.2 Manage the implementation of the project	AHU has managed all project activities since the beginning of the project. To date, AHU has organised 4 plenary meetings to discuss project activities, future work plans and ensure the delivery of project outputs on time and to an acceptable quality.		Ongoing	14/11/2022	
Task 7.3 Supervise the design and management of the website	The project website was created in the first month of the project and it is periodically updated to announce project results, activities, and events.		Ongoing	14/4/2020	

Task 7.4 Organize the kick-off meeting	The Kick-Off meeting was held in AHU (Ma'an-Jordan) on February 3-4, 2020. All the representatives from all partners participated. AHU coordinated the meeting and discussed the project progress and the future work plans.		Delivered	14/12/2019 Real Delivery Date: 3-4/02/2020	
Task 7.5 Organize and manage all meetings with the hosting partners	AHU managed 4 plenary meetings (kick-off meeting at AHU in February 2020, second virtual meeting in September 2020, third virtual meeting in February 2021, fourth virtual meeting in July 2021) where the progress of the project was discussed.	Four plenary meetings have been organised so far. The outcomes of these meetings are the agenda, the list of participants, the minutes of the meetings, presentations of the participants and photos.	Ongoing	14/11/2022	
Task 7.6 Assure the external audit		This task is planned during the third year of the project.	Planned	14/11/2022	
Task 7.7 Participate in drafting the required reports	AHU has reviewed and contributed to the elaboration of all project deliverables.	The midterm technical and financial reports were delivered to EACEA on 1st July 2021. Overall evaluation of "Good" has been made by EACEA. The request for the second payment from EACEA is being prepared.	Ongoing	14/11/2022	
Task 7.8 Participate in meetings	AHU has participated in all plenary meetings held up to now.	Four plenary meetings have been organised and AHU has participated in all of them.	Ongoing	14/11/2022	
Task 7.9 Participate in organizing SSC and StC meetings	StC and SSC meetings were held with the plenary meetings and AHU participated in.		Ongoing	14/11/2022	
2. Deliverables					
Deliverable #	**Specific and measurable indicators**	**Comments**	**Current Status**	**Deadline for Submission (according to contract)**	**Deviation of working or time schedule and technical corrective action**

DEV 7.1. IREEDER plenary meetings	Kick-off meeting at AHU: - Agenda - List of Participants - Minutes - PowerPoint presentations - Photos -n.1 Kick-off Quality report (See annex 1)	3/2/2020 29 Participants 4/2/2020 23 Participants	Achieved	15/12/2019 Real Delivery Date 03-04/02/2020	The kick-off meeting was delayed to early February 2020 due to the recommendation of the national Erasmus office. The second, third and fourth plenary meetings have been held virtually due to travel restrictions caused by the COVID-19 pandemic.
	Second Plenary Virtual Meeting: - Agenda - List of Participants - Minutes - PowerPoint presentations - Photos -n.1 Second Plenary meeting- Survey Quality report (See annex 2)	9/9/2020 23 Participants	Achieved	15/05/2020 Real Delivery Date 09/09/2020	
	Third Plenary Virtual Meeting: - Agenda - List of Participants - Minutes -PowerPoint presentations - Photos - n.1 Third Plenary meeting- Survey Quality report (See annex 3)	25/2/2021 27 Participants	Achieved	15/12/2020 Real Delivery Date 25/02/2021	
	Fourth Plenary Virtual Meeting: - Agenda - List of Participants - Minutes - PowerPoint presentations - Photos - n.1 Fourth Plenary meeting- Survey Quality report (See annex 4)	29/7/2021 29 Participants	Achieved	15/05/2021 Real Delivery Date 29/07/2021	

	Fifth plenary meeting		Not yet achieved	15/12/2021
	Sixth plenary meeting		Not yet achieved	15/05/2022
	Closure plenary meeting		Not yet achieved	15/11/2022
DEV 7.2. IREEDER website and communication platform	The IREEDER official website is periodically updated. Communication platform for IREEDER partners. Final report on the monitoring of accesses and registered users, and their feedback and opinions.	Project website http://ireeder.ahu.edu.jo Communication platform https://4tellstore.av.it.pt/cgi-bin/ A YouTube channel has been created and continuously updated with videos relevant to the IREEDER project. http://ir.gl/650835	Partially achieved	15/03/2020 Real Delivered Date: 15/12/2019
DEV 7.3. Financial auditing report		This activity is planned at the end of the project	Not yet achieved	14/11/2022

4. Review of progression indicators

Activities	Target groups/potential beneficiaries	Deliverable/Results/ Outcomes	Deadline for delivery	Real delivery	Info	Level of satisfaction	Corrective Actions (if needed)	Quantitative indicators		Qualitative indicators	Status
WP1/1.1 IREEDER Kick-off meeting	Stakeholders in academic institutions (students, professors, researchers…) and industrial sector (engineers, technical staff, employers)	**Meeting agenda**	14/12/2020	03/02/2020 04/02/2020	http://ir.gl/82fcea	Very satisfactory	The Kick-off meeting was delayed due to (04-02- 2020) based on National Erasmus Office recommendation)	Number of participants in the kick-off meeting	3/2/2020: **29 participants** 4/2/2020: **23 participants**	The kick-off meeting was held in AHU (Ma'an-Jordan) on February 3-4, 2020 where representatives from all partners participated.	Achieved
		D1.1 Kick-off Meeting Minutes		14/2/2020	http://ir.gl/877b86	Very satisfactory				During the Kick-Off meeting, the participants agreed on the names of the members of the Steering and Scientific Committees of the IREEDER project.	
		List of StC members		4/2/2020	Page 9 http://ir.gl/877b86	Very satisfactory		Number of StC members	**n.11 members**	The task allocation has been discussed for all partners from the beginning of the project. Also, in the kick-off meeting, the framework for each WP has been discussed and agreed on.	
		List of SCC members		4/2/2020	Page 4 http://ir.gl/877b86	Very satisfactory		Number of SCC members	**n.20 members**	A general cooperation and communication approach has been discussed and agreed on to achieve each task of each WP.	
		List of QMC		4/2/2020	Pages 9-10	Very satisfactory		Number of QMC members	**n. 11 members**	To define QAP methodology	

					http://ir.gl/877b86						
WP1/1.2 Identifying training and teaching needs	Teaching staff, students, trainees	**D1.2 Identifying Training and Teaching Needs**	15/2/2020	14/2/2020	http://ir.gl/2b9bdf	Very satisfactory		A number of questionnaires were sent to educational institutions	**n.3 questionnaires** were elaborated, distributed and filled in. **n.371 participants** in the IoT questionnaire. **n. 333 participants** in the CS questionnaire. **n.334 participants** in the RE questionnaire. **n.1 final report** elaborated (D1.2).	3 different questionnaires were designed to investigate the needs in the three fields of interest of the IREEDER project (IoT, CS and RE) for three identified final users/sectors, university (students and staff), and industry. The online questionnaire (Google Form) on Renewable Energy was filled up by 334 participants, 96,7% of them from Jordan. The one on Cyber Security was filled up by 333 participants, 93,4% of them from Jordan. The third survey on the Internet of Things saw the participation of 371 people, 94,1% from Jordan. Graphs, results, and conclusions are included in a final report and shared with the partners. For completing the deliverable, the excel files automatically downloadable from Google Form and including all the	Achieved

										responses could be saved in the repository.	
WP1/1.3 Veryfying partners facilities	Teaching staff, students, trainees, administrative staff, technical staff, librarians	**D1.3 Verifying Partners Facilities**	15/2/2020	14/2/2020	http://ir.gl/6e373a	Very satisfactory		A number of questionnaires were sent to educational institutions	**n.1 questionnaire** (survey) was elaborated, distributed, and filled in. **n.10 responses** (one from each partner) were received. **n.1 final report** elaborated (D1.3).	To investigate the different facilities offered by the Jordanian universities participating in the IREEDER project, a questionnaire was developed. The final report includes the questionnaire template, the link to Google Form and the analysis of the results. The surveys completed by each of the 10 participants are also included.	Achieved
WP2/2.1 Identification of teaching objectives and materials outlines	Teaching staff, students, trainees	**D2.1 Report on Teaching Objectives and Materials' Outline**	15/6/2020	15/6/2020	http://ir.gl/7d877f	Very satisfactory		Identified objectives Identified materials	**n.1 Report** on the course descriptors of the three courses elaborated (including teaching objectives, course outline and workload distribution for the development	A report on teaching objectives and materials' outlines is available in IREEDER repository. The document, written by the WP2 leader, provides for each course the following contents aims and objectives, learning outcomes, the course's contents scheduled per week (for a total of 13), teaching,	Achieved

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						Very satisfactory		of the teaching material)		learning and assessment strategy, bibliography. The results of the surveys carried out during the WP1 have been taken into consideration and included in the report as suggestions for the elaboration of the new courses.	
WP2/2.2 Preparing the teaching materials	Teaching staff, students, trainees	**D2.2 Teaching materials**	15/6/2021			Very satisfactory		Number of topics addressed	IoT: 13 ER: 13 CS: 13	The teaching material is divided into 13 PowerPoint presentations and one lecture note for each course.	Achieved
		n.13 IoT Presentation Slides		16/04/2021	http://ir.gl/463eb4			Number of participating experts in IoT	**n.21 experts IoT course**	The teaching materials for the three courses developed have been reviewed by expert evaluators from outside the project partner institutions. A report on the evaluation of the expert evaluators has been produced for each of the courses.	
		n.1 IoT Lecture Notes		16/04/2021	http://ir.gl/ba11d3						
		n.1 CS Lecture Notes		27/05/2021	http://ir.gl/3984b0			Number of participating experts in CS	**n.13 experts CS course**		
		n.13 CS Presentation Slides		27/05/2021	http://ir.gl/5de797						
		n.1 RE Lecture Notes		07/05/2021	http://ir.gl/03bf99			Number of participating experts in RE	**n.10 experts RE course**		
		n.13 RE Presentation Slides		07/05/2021	http://ir.gl/ac70cb						
		Evaluation of teaching materials by expert evaluators from outside the project									
		n.1 CS teaching materials evaluation report		09/2021	http://ir.gl/49bfd9			Number of expert evaluators for the CS course	**n.5 expert evaluators**		

		n.1 RE teaching materials evaluation report		**07/2021** http://ir.gl/d888fe			Number of expert evaluators for the RE course	**n.9 expert evaluators**		
		n.1 IoT teaching materials evaluation report		**09/2021** http://ir.gl/0052e2			Number of expert evaluators for the IoT course	**n.5 expert evaluators**		
WP3/3.1 Development of capacity building plan	Teaching staff, students, trainees	**D3.1 Development of a Capacity Building Plan**	15/11/2020	**06/11/2020** http://ir.gl/999bc9	Very satisfactory				The IREEDER capacity development plan includes the project capacity development concept, the implementation structure, the monitoring and evaluation framework and the implementation process.	Achieved
WP3/3.2 Identification of laboratories equipment	Teaching staff, students, trainees	**D3.2 Identification of General Equipment of Laboratories**	15/3/2021	**14/6/2020 (Anticipated as suggested by the National Officer).** http://ir.gl/895d37	Very satisfactory	The second task consists in the purchase of the equipment and its installation. The latter activity was greatly affected by the pandemic. As a result, the documents for the public announcements were prepared late.	**n.1** List of equipment for the IoT lab. **n.1** List of equipment for the CS lab. **n.1** List of equipment for the RE lab. **n.1** List of equipment for Remote Access. **n.1** Equipment approved by EACEA. **n.1** Official communication for the approval of the equipment.		This report includes all information concerning the three laboratories and a detailed description of the devices.	Achieved
WP3/3.3 Holding training workshops in EU	Teaching staff, students, trainees		15/12/2021							ONGOING

IoT training workshops in UCLAN	Teaching staff, students, trainees	IoT training report Recorded videos of all training sessions n.14 Trainers' presentations n.17 Certificates of attendance n.8 Certificates of training of trainers		17-28/06/2021	[Agenda]: http://ir.gl/6f3d6a [Photos]: http://ir.gl/90a22 [Trainers' presentations]: https://4tellstore.av.it.pt/cgi-bin/ [Recoded videos]: http://ir.gl/1e1c81		The IoT workshop training was organised virtually due to the restrictions caused by Covid 19.	Number of trainees attending		
CS training workshops in UVIGO	Teaching staff, students, trainees	CS training report **n.15 Recorded videos** **n.14 Trainers' presentations** **n.21 Certificates of attendance** **n.9 Certificates of training of trainers**		20-30/09/2021	[Agenda]: http://ir.gl/0f7 [Photos]: http://ir.gl/8b2a9e [Trainers' presentations]: https://4tellstore.av.it.pt/cgi-bin/ [Recoded videos]: http://ir.gl/d85a92		The CS workshop training was organised virtually due to the restrictions caused by Covid 19.	Number of trainees attending	Session 1 : 19 Session 2 : 19 Session 3 : 20 Session 4 : 14 Session 5 : 20 Session 6 : 20 Session 7 : 15 Session 8 : 14 Session 9 : 16 Session 10 : 14 Session 11 : 18 Session 12 : 14 Session 13 : 16 Session 14 : 15 Session 15 : 13	
RE training workshops in UPAT		RE training report		22-26/11/2021	[Agenda]: http://ir.gl/3792c4			Number of trainees attending		

WP3/3.4 Holding training workshops in Jordan.	Jordanian faculty members, students, trainees, technical staff	3 training workshops were held at AHU, TTU and MU. For each training workshop: - Agenda - List of participants - PowerPoint presentations - Other training materials - Photos - Training workshop report (one report for workshop)	15/04/2022					Number of trainees attending Number of the held workshops		Detail and clarity of the training reports Satisfaction of the participants Participants obtain clear instructions to implement the courses Delivering the training reports on time	Not yet achieved
WP4 Quality Assurance	Teaching staff, students, trainees	**Quality Assurance Plan**	15/3/2020	16/6/2020	https://4tellstore.av .it.pt/cgi-bin/	Very satisfactory	We decided to include a risk management plan	n.1 Quality Assurance Plan		This document provides the Quality Assurance Plan (QAP) for iREEDER project. To ensure the success of this QAP, all project partners perform their tasks effectively to achieve the intended results and create an impact in Jordan. In this sense, this document reflects the commitment of the partners of IREEDER project with the quality of all the results.	Achieved
D4.1 The first annual quality report assurance	Teaching staff, students, trainees	**n.1 first annual quality report assurance**	15/11/2020	15/11/2020	http://ir.gl/cefaff	Very satisfactory		The reports provide specific information on the results of each work package and task, during the		The first and second annual quality assurance reports	Achieved

D4.2 The second annual quality assurance report	Teaching staff, students, trainees	**n.2 second annual quality assurance report**	15/11/2021	15/11/2021		Very satisfactory		implementation of the project, considering qualitative and quantitative indicators to assess the level of success.	assessed the progress of the IREEDER project, in particular, the activities to achieve the project objectives. The first report was prepared by the QMC and delivered on 15 November 2020 and the second report was also prepared by the QMC and delivered on 15 November 2021. These reports will report on the overall implementation of the project activities as well as on the development and implementation of the curricula.	Achieved
D4.3 The third annual quality assurance report	Teaching staff, students, trainees		15/11/2022							Not yet achieved
D4.4 The mid-term evaluation report (External evaluator)	Teaching staff, students, trainees	**n.1 mid-term evaluation report**	15/4/2021	17/05/2021	https://4tellstore.av.it.pt/cgi-bin/	Very satisfactory	The public announcement for the selection of the External Evaluator was published in November 2020. The delay is justified by the necessity to find a person with proven experience in the management and evaluation of European projects and competencies in the three topics of IREEDER (IoT, CS and RE). The contract was signed in March 2021. For this, reason, the Task is affected by a delay of 8 months.	The report was elaborated following the objectives and the tools as stated in the External Evaluation Plan.

A first questionnaire | This mid-term evaluation report is the result of the monitoring activity conducted in the framework of IREEDER Project during the period from November 15th, 2019, to May 14th, 2021.

The main goal is to provide a clear "image" | Achieved |

								The implementation of this task has been delayed due to the delay in the recruitment process of the external evaluator. This has resulted in a delay of two months in the production and delivery of the external evaluator's report (DEV 4.4). The mid-term assurance report prepared by the external evaluator was planned for 15-4-2021, but due to the delay in of the hiring process of the external evaluator, the delivery of the report has been delayed to 30-5-2021.	was projected and submitted to the Applicant and the WPs leader to collect all the necessary information and the issues incurred.	of the status of the development of the project based on the tasks really performed, the deliverable produced and the delay, compared to the timetable reported in the proposal.	
D4.5 The final evaluation report (External evaluator)	Teaching staff, students, trainees		14/11/2022								Not yet achieved
WP5/5.1 Elaboration of the sustainability plan	Teaching staff, trainees	Sustainability Plan	15/1/2022								Not yet achieved
WP5/5.2 Students training	Teaching staff, students, trainees	Students training	14/11/2022					Number of the training workshops			Not yet achieved
		Training sessions report						Number of the attending students			
WP5/5.3 Setting up E-learning modules	Teaching staff, students, trainees	E-learning module	15/7/2022								Not yet achieved
WP5/5.4 Commencing final year	Teaching staff, students, trainees	Final year graduation projects	15/11/2022					Number of graduation projects accomplished.			Not yet achieved

graduation projects								Number of students		
WP6/6.1 Development of the dissemination plan	Students of electrical engineering and related programme, Academic staff, Industrial partners, and companies working the field of RE, CS and IoT. Industries and companies working in other fields, Agricultural Institutions and Society in general.	**D6.1 Dissemination Plan**	15/6/2021	**15/01/2021**	http://ir.gl/fb	Very satisfactory	As a result of a recommendation from the National Erasmus Office during a monitoring visit in September 2020, the Dissemination plan has been shifted earlier. The dissemination plan was supposed to be given on June 15, 2021; however, it was provided on January 15, 2021.	IREEDER Dissemination Plan (D6.1) has been finalized by MU with the help and contributions of all partners. It includes the dissemination activities which will be carried out by the project partners to ensure the effective promotion and exploitation of the project results. The approved final version is uploaded on the project website.	The Dissemination Plan is focused on the strategies and tools for external communication, towards stakeholders and final beneficiaries. The document includes the dissemination goals and objectives, the roles of the partners, target groups and stakeholders, a list of the dissemination tools (website, social network, newsletter, events, etc.). IREEDER stakeholders have been identified in n. 6 categories: 1) Students of electrical	The Dissemination Plan outlines the activities which will be carried out to assure the promotion and exploitation of project results. Following the recommendation of the National Erasmus Officer, the elaboration of the Dissemination Plan was shifted earlier. The document was finalized on January 15th, 2021, instead of June 15th, 2021 (five months before the planned deadline). This decision has allowed to implementation of a communication strategy and to elaborate the communication tools from the beginning of the project, supporting its local impact.	Achieved

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									engineering and related programme, 2) Academic staff, 3) Industrial partners and companies working the field of RE, CS and Io, 4) Industries and companies working in other fields, 5) Agricultural Institutions and 6) society in general. For this purpose, a stakeholders Contact list have been elaborated. The Mailing list saved in the repository counts n. 90 contacts.		
WP6/6.2 Communication plan and	Students of electrical engineering and related programme,	Communication plan	15/11/2021	Real Delivery Date:					Feedback about the communication plan	Partially achieved
		Promotion materials n.1 logo		**Logo** (30-11-2019)	https://4tellstore.av.it.pt/cgi-bin/	Very satisfactory	Due to the current COVID19 pandemic	The creation of project website and its related social media platforms;	Once approved the dissemination plan, the	

| promotion materials. | Academic staff, Industrial partners, and companies working in the field of RE, CS and IoT. Industries and companies working in other fields, Agricultural Institutions and Society in general. | n.1 brochure of IREEDER project (English and Arabic) n.1 IREEDER promotional video (English and Arabic) n.3 bi-annual IREEDER Newsletter | | Brochure (15-1-2020) Video (12-2020) Newsletter (issue 1: 01-07-2020, issue 2: 02-12-2020, issue 3 01-06-2021) | http://ir.gl/a0e40f http://ir.gl/6126c8 http://ir.gl/62a3da http://ir.gl/5d8907 http://ir.gl/471961 http://ir.gl/f9af0d http://ir.gl/5e87de | | situation, all project brochures, newsletters are issued in digital versions (in a PDF file format) and available on the official project website. A portion of this task has been already achieved while others are still in progress. | Design of the project logo; Develop and produce promotional materials for the kick-off meeting; IREEDER team at AHU prepared a promotional video about IREEDER project. - A live radio interview was held at Saout aljanoub radio station about IREEDER; http://ir.gl/e9870e - Online IREEDER Introductory Lectures were held at different Jordanian partners. n.1 IREEDER Introductory Lecture - IU 15 March 2021 [Gallery]: http://ir.gl/815e95 n.1 IREEDER Introductory Lecture - TTU on 17 March 2021 [Gallery]: http://ir.gl/baf n.1 IREEDER Introductory Lecture - MU on 25 March 2021 [Gallery]: http://ir.gl/ddeaac n.1 IREEDER Introductory Lecture - PU on 8 April 2021 [Gallery]: http://ir.gl/cba19e - n.3 bi-annual newsletters were developed and distributed among partners, social media. | consortium has worked in the elaboration of the promotional materials. The official website of IREEDER project is online at the following link: http://ireeder.ahu.edu.jo/ During the life of the project, the Consortium has carried out the following promotional activities: live radio interviews, production of a promotional video, online introductory lectures in Jordanian universities. Specific pages on two social media, Facebook, and LinkedIn, have been opened. The official logo was designed from the beginning of the project and has been used in all official and public communication. A live radio interview was held at Saout aljanoub radio station. Three newsletters have been elaborated. A YouTube channel has been created and continuously updated with videos relevant to | |

									the IREEDER project. http://ir.gl/650835	
WP6/6.3 Holding the first dissemination workshop	Students of electrical engineering and related programme, Academic staff, Industrial partners and companies working in the field of RE, CS and IoT, Industries and companies working in other fields, Agricultural Institutions and Society in general.	The first dissemination workshop n. 1 dissemination Workshop held at MU n. 1 agenda n. 1 list of invited stakeholders n. 1 list of registered attendees n. 5 PowerPoint presentations n. 1 IREEDER network First dissemination workshop report	15/6/2022	First Dissemination Workshop is foreseen for the third year				Number of the stakeholders attending the dissemination workshop	Feedback about the workshop	Not yet achieved
WP6/6.4 Holding the second dissemination workshop	Students of electrical engineering and related programme, Academic staff, Industrial partners, and companies working in the field of RE, CS and IoT. Industries and companies	The second dissemination workshop n. 1 dissemination Workshop held at PU n. 1 agenda n. 1 list of invited stakeholders n. 1 list of registered attendees n. 5 PowerPoint presentations	15/11/2022	The second Dissemination Workshop is foreseen for the third year				Number of the stakeholders attending the dissemination workshop	Feedback about the workshop	Not yet achieved

	working in other fields, Agricultural Institutions and Society in general.	n. 1 IREEDER network updated Second dissemination workshop report									
WP7/7.1 Coordinating plenary meetings											
kick-off meeting	All the project partners		15/12/2019	03-04/02/2020	[Agenda]: http://ir.gl/82fcea [Photos]: http://ir.gl/6d21de [Minutes]: https://4tellstore.av.it.pt/cgi-bin/	Very satisfactory	The kick-off meeting was delayed to early February 2020 due to the recommendation of the national Erasmus office.	Number of participants in plenary meetings	**3/2/2020: 29 participants** **4/2/2020: 23 participants**	AHU has managed all project activities since the beginning of the project. To date, AHU has organised 4 plenary meetings to discuss project activities, future work plans and ensure the delivery of project outputs on time and to an acceptable quality. AHU as a coordinating institution of the IREEDER project has been in contact with the project partner and the project officer (EACEA) to update both sides about necessary actions, comments, and milestones. AHU has signed the project agreement and transferred all the programme regulations	Achieved
Second IREEDER Plenary Meeting	All the project partners	**Meeting agenda** **Plenary meeting minutes**	15/05/2020	09/09/2020	[Agenda]: http://ir.gl/979087 [Photos]: http://ir.gl/a015dd [Minutes]: https://4tellstore.av.it.pt/cgi-bin/	Very satisfactory	The second, third and fourth plenary meetings have been held virtually due to travel restrictions caused by the COVID-19 pandemic.		**23 participants**		Achieved
Third IREEDER Plenary Meeting	All the project partners	**Meeting agenda** **Plenary meeting minutes**	15/12/2020	25/02/2021	[Agenda]: http://ir.gl/6d [Photos]: http://ir.gl/4e1bd7 [Minutes]: https://4tellstore.av.it.pt/cgi-bin/	Very satisfactory			**27 participants**		Achieved

Fourth IREEDER Plenary Meeting	All the project partners	**Meeting agenda** **Plenary meeting minutes**	15/05/2021	29/7/2021	[Agenda]: http://ir.gl/6e63ee [Photos]: http://ir.gl/4d07ce [Minutes]: https://4tellstore.av.it.pt/cgi-bin/	Very satisfactory				**29 participants** and rules that must be followed in managing the grant**.**	Achieved
Fifth IREEDER Plenary Meeting			15/12/2021								Not yet achieved
Sixth IREEDER Plenary Meeting			15/05/2022								Not yet achieved
Closure plenary meeting			15/11/2022								Not yet achieved
WP7/7.2 IREEDER website and communication platform	Teaching staff, students, trainees, technical staff	**IREEDER website and communication platform**	15/3/2020	15/12/2019	[Project website]: http://ireeder.ahu.edu.jo [Communication platform]: https://4tellstore.av.it.pt/cgi-bin/	Very satisfactory			Number of visitors and their feedback. Number of contents published.	The **LinkedIn** page has **417 followers.** The number of contents published to date is 18. **Facebook** page has **528 followers** **Website** has **5847 visitors** **YouTube** channel has **34 subscribers**	IREEDER official website is periodically updated. Communication platform for IREEDER partners. Final report on the monitoring of accesses and registered users, and their feedbacks and opinions. The project website was created in the first month of the project and it is periodically updated to announce project results, activities and events.	Partially achieved

WP7/7.3 Financial auditing	Administrative staff	Financial auditing report	14/11/2022							Delivering the financial auditing report on time	Not yet achieved

5. Observations and Recommendations

The IREEDER project has so far accomplished the objectives set at the outset with satisfactory quality standards. The project tasks planned for the first two years of the project have been fully implemented in accordance with the requirements of the project work plan. The project objectives and expected results have been achieved. In terms of contribution to the project objectives, efforts have been made to achieve all project objectives. The work plan indicated in the project proposal as well as the priorities and metrics reflected in the LFM are closely observed by those responsible for each work package. Good cooperation has been observed within the consortium, although naturally the impact in each country has been strongly affected by external factors beyond the control of the project (COVID 19 pandemic). Stakeholder cooperation within the consortium is one of the factors that increase or decrease the effectiveness and productivity of project activities. In this sense, the evaluation of the cooperation between the IREEDER project partners is very positive (which can be assessed by the number of emails between partners and discussions on IREEDER activities). There is complete clarity of information and full availability of information on all project issues. In addition, the IREEDER website and communication platform promote continuous interaction so that information is always shared.

The involvement of project partners is evident from their participation in the consortium meetings and training workshops held.

On the other hand, the installation of the new laboratories has been affected by the restrictions due to the pandemic both in the administrative procedure for the publication of the public tender and in the delivery and installation of the equipment purchased. At this stage, part of the IoT, CS and RE labs have been installed and a set of PCs, data servers, is still pending. The fourth tender is almost completed. In this tender, a set of PCs and data servers is allocated, to be distributed to the Jordanian partners (JO). The laboratories are part of the training of the new courses, allowing the acquisition of practical skills. For this reason, an extra effort should be made to complete this task in a short time.

6. Annexes

1. Kick-off meeting- Quality report
2. Second Plenary meeting. Survey Quality report
3. Third plenary meeting. Quality report
4. Fourth plenary meeting. Quality report
5. First Annual Satisfaction Survey on Overall Project Management
6. CS teaching materials evaluation report
7. IoT teaching materials evaluation report
8. RE teaching materials evaluation report