

ERASMUS+ PROGRAMME
Project Number: 618509-EPP-1-2020-1-JO-EPPKA2-CBHE-JP

ECO-CAR:
Vocational Training Diploma on Electrical and Hybrid Vehicles

Minutes of
Steering and Scientific Committees Meeting
March 10th – 11th 2022
Thursday – Friday

and

Project Implementation by Partner Universities in Jordan Workshop
Saturday, March 12th 2022

National Technical University of Athens (NTUA)

Location: <https://goo.gl/maps/7ymfKfD1hEDSMq2y9>



Participants List

Name	Institution
Prof. Ahmed Al-Salaymeh	The University of Jordan
Prof. Mohammad Hamdan	The University of Jordan
Eng. Rasha Al-Baik	The University of Jordan
Eng. Sara Al Twassi	The University of Jordan
Prof. Suhail kiwan	Jordan University of Science and Technology
Eng. Salaheddin Abu Yahya	Jordan University of Science and Technology
Prof. Omer Maaitah	Mutah University
Prof. Mohammad Almajali	Mutah University
Prof. Mohammad Saraireh	Mutah University
Dr. Saif AlNawayseh	Mutah University
Dr. Wa'el Adaileh	Tafila Technical University
Dr. Ahmad Mostafa	Tafila Technical University
Prof. Rebhi Damseh	Al- Balqa' Applied University
Dr. Mamoun Al-Smadi	Al- Balqa' Applied University
Prof. Naser Abdellatif	Applied Science Private University
Prof. Abdullah Abdullah	Al Hussein Technical University
Prof. Tarek Tutunji	Al Hussein Technical University
Dr. Loai Dabbour	Al-Zaytoonah University of Jordan
Dr. Nabeel Abu Shaban	Al-Zaytoonah University of Jordan
Eng. Eman AbdelHafez	Al-Zaytoonah University of Jordan
Prof. Salman Ajib	Technische Hochschule Ostwestfalen-LIPPE (TH-OWL)
Mr. M.Sc. Timo Broeker	Technische Hochschule Ostwestfalen-LIPPE (TH-OWL)
Stephan Bihn	Rheinisch-Westfaelische Technische Hochschule Aachen (RWTH-Aachen)
Florian Ringbeck	Rheinisch-Westfaelische Technische Hochschule Aachen (RWTH-Aachen)
Dr. Ivan Dyukarev (online)	Universidad de la Iglesia de Deusto Entidad Religiosa (UD)
Sara Goitia Ubierna (online)	Universidad de la Iglesia de Deusto Entidad Religiosa (UD)
Jon Garcia Barruetabeña (online)	Universidad de la Iglesia de Deusto Entidad Religiosa (UD)
Dr. Máté Zöldy	Budapesti Muszaki es Gazdasagtudományi Egyetem (BME)
Eng. Adam Nyerges	Budapesti Muszaki es Gazdasagtudományi Egyetem (BME)
Prof. Dimitrios Koulocheris	National Technical University of Athens (NTUA)
Dr. Clio Vossou	National Technical University of Athens (NTUA)
Prof. Michele Anatone (online)	Universita Degli Studi Dell'aquila (UNIVAQ)
Dr. Marco Calabrese (online)	Universita Degli Studi Dell'aquila (UNIVAQ)

Minutes of the Meeting

The 2nd Steering and Scientific Committees Meeting was conducted in the Library & Information Center at the National Technical University of Athens (NTUA) in Athens, Greece on March 10th – 11th 2022. In addition, ZOOM video conferencing has been launched in parallel for whom could not attend the meeting physically.

The meeting started by a welcome speech by the project local coordinator at NTUA and introducing NTUA in brief to the participants. Then, a welcome speech by the project general coordinator and viewing the agenda of the meeting by Prof. Ahmed Al-Salaymeh.

ECO-CAR Project in Brief

Prof. Ahmed Al-Salaymeh presented ECO-CAR project in brief. He outlined the project objectives, indicators, progress of work packages and their expected results. Prof. Al-Salaymeh has underlined the achievements of each WP up to date and what is expected from each WP to be achieved in the upcoming months. The overall plans are as follow:

ECO-CAR Focus Groups (FGs)

The three FGs of ECO-CAR project have been presented to the participants to clarify the main aim, target groups, credit hours, and programme learning outcomes of each diploma. Table shows the FGs presentation programme.

FG#	Presenter
Focus Group 1 (Professional Diploma)	Prof. Suhail kiwan - JUST
Focus Group 2 (Community College Diploma)	Dr. Mamoun Al-Smadi - BAU
Focus Group 3 (Vocational Diploma)	Prof. Abdullah Abdullah - HTU

And agreed on the following:

No.	Task	Responsibility	Deadline
1.	FG1 (Professional Diploma): The practical part has to be prepared as part of the courses preparation.	Clusters Committees	End of April
2.	FG2 (Community College Diploma): The practical part will be prepared by TTU and BAU.	TTU and BAU	End of April
3.	FG3 (Vocational Diploma): The practical part will be prepared by Cluster 9 Committee Members.	Cluster 9 Committee	End of April

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| 4. | Cooperation with Vocational centers and enterprises is needed. | All partners |
|----|--|--------------|

ECO-CAR Courses Clusters

ECO-CAR has established (9) clusters for the aim of developing the courses of ECO-CAR diplomas. Each cluster team has presented the following:

- ✓ Courses outlines
- ✓ Courses content
- ✓ Upcoming tasks and challenges
- ✓ Timeline to submit the cluster material

Cluster	Leader and Co-leader	Status and Upcoming tasks
Cluster 1: Hybrid and Electric Vehicle Basics	Leader: BAU Co-leader: NTUA Partners: Aachen, MU, UJ	<ul style="list-style-type: none"> - Contact with stakeholders to integrate the courses content with the market experience - Collect courses content from committee members. - The process is running slow and courses content will not be ready by end of March
Cluster 2: Battery Storage Technology, Charging systems, and Recharging Infrastructure	Leader: Aachen Co-leader: TH-OWL Partners: UJ, JUST, ZUJ	<ul style="list-style-type: none"> - Contact with stakeholders to integrate the courses content with the market experience - Collect courses content from committee members - Low response from committee members
Cluster 3: Electric and Hybrid Vehicles Diagnosis for Maintenance and Repair	Leader: TTU Co-leader: HTU Partners: BAU, Aachen	<ul style="list-style-type: none"> - Contact with stakeholders to integrate the courses content with the market experience - Collect courses content from committee members. - Draft submission of course materials is expected 31.03
Cluster 4: Internal Combustion Engines in Hybrid Vehicles	Leader: BME Co-leader: MU Partner: JUST, HTU, UNIVAQ, UJ	<ul style="list-style-type: none"> - Organisation problems during the meetings - Hurry up is needed - 30th April deadline is keepable - Project partners could help with materials

Cluster 5: Automotive Electricity, Electronics, Sensors, and Actuators	Leader: HTU Co-leader: ZUJ Partner: TTU, BME, UJ	- End of March is keepable in most of the materials, latest mid of April -Support is needed in Automotive Electronics
Cluster 6: Vehicle Dynamics	Leader: UD Co-leader: ASU Partner: UNIVAQ, NTUA, JUST	-More horizontal cooperation is requested Up to 10th March, materials, continued with reviews, exp. end unseen -New timetable will be created -Meeting next week to speed up the process with prof. Al-Salaymeh
Cluster 7: Health and Safety	Leader: MU Co-leader: UNIVAQ Partner: BAU, ZUJ, BME, UJ	Draft, reviewed material is expected by end of March
Cluster 8: Electrical Machines and Drives	Leader: TH-OWL Co-leader: ASU Partner: HTU, BAU, UJ	- Lack of internal cooperation - Project partners can support with some missing learning elements - End of April cannot be guaranteed, depends on JO partners
Cluster 9: Labs & Workshops	Leader: BAU Co-leaders: TTU, JUST Partner: UD, UNIVAQ, HTU, ASU	- Hard to prepare courses for non-existing equipment, cluster is on delay, - Based on the catalogs the lab education should be developed - This committee will be responsible for professional diploma only

And agreed on the following:

No.	Task	Responsibility	Deadline
1.	Courses content preparations will be extended	Clusters Committees	End of April
2.	Further cooperation by partners is needed	Clusters Committees	
3.	Conduct a shared drive file for exchanging materials. Follow this link to reach the shared file: https://drive.google.com/drive/folders/1evkwzmgabJ4AOsDaozITSNUCuKpUFXFZ?usp=sharing	UJ	Already conducted

ECO-CAR Work packages (WPs)

WP1: Establishing university-enterprise cooperation

Duration: M1 to M36

Lead University: Jordan University of Science and Technology (JUST)

Co-Lead University: Mutah University (MU), Al-Hussein bin Abdullah II Technical University (HTU) & Universidad de la Iglesia de Deusto Entidad Religiosa (UD)

Overall Plan:

Number	Plan	Duration
1	Proactively identify and seek out network members from different locations.	M1
2	Provide the network members with the needed information about the project aims and activities.	M1
3	Prepare a registration form.	M1
4	Creating a Network of Community Support professionals, potential funders and investors and other stakeholders. The Network members will be involved in different activities of the project.	M5
5	Conduct meetings with enterprises to include them in the design and implementation of the project, to understand stakeholders' interests, concerns and culture.	M5
6	Organise workshops and seminars to exchange information.	M6-M36
7	Sign collaboration agreements with enterprises and training centres to let the students make their internships.	M6

Eng. Salaheddin Abu Yahya (JUST) presented the progress of this work package, registration form as two versions are prepared (Arabic and English) to accommodate with the mother language of the target sector, and the number of registered members in the network since the collected responses are stated below:

Jordanian Partners	Number of network members registered	Remained number of network members to be registered	European Partners	Number of network members registered	Remained number of network members to be registered
UJ	13	0	TH-OWL	2	2
JUST	10	0	UD	3	1
TTU	10	0	NTUA	5	0

BAU	8	2	RWTH-Aachen	2	2
MU	9	1	UNIVAQ	0	4
HTU	9	1	BME	0	4
ASU	5	5	Total	<u>12 members</u>	<u>14 members</u>
ZUJ	7	3			
Total	<u>71 members</u>	<u>12 members</u>			

And agreed on the following:

No.	Task	Responsibility	Deadline
1.	UNIVAQ and BME have to provide at least 2 members for ECO-CAR Network. Also, RWTH-Aachen, TH-OWL still have to provide at least 1 more member.	BME, RWTH-Aachen, TH-OWL, and UNIVAQ	May, 2022
2.	JUST started the process of signing a collaboration agreement with Automotive Technology Academy (ATA)	JUST	Already started
3.	Organise workshops and seminars to exchange information.	All partners	Continuous progress
4.	Sign collaboration agreements with enterprises and training centres to let the students make their internships.	All partners	August, 2022
5.	Agreement template will be sent by UJ	UJ	31.03.2022

WP 2: Baseline Study

Duration: M1 to M6

Lead University: Applied Science University (ASU)

Co-Lead University: Tafila Technical University (TTU), Al-Balqa Applied University (BAU) & Universita Degli Studi Dell'Aquila (UNIVAQ)

Overall Plan:

Number	Plan	Duration
1	WP leader will set a detailed plan for the WP.	M1
2	WP leader will design the four surveys in coordination with WP5 leader and submit them to be approved by Technical Committee.	M2
3	Partners will circulate the surveys to the target groups.	M2

4	Co-leaders will analyze the responses under the leader supervision and generate one report.	M4
5	Other WP's will be based on generated results of this surveys.	M5
6	Progress report to be provided by WP leader every 6 months based on collected feedback from Co-Leaders.	M6

Prof. Naser Abdellatif (ASU) presented the progress of this work package and the action plan, and agreed on the following:

No.	Task	Responsibility	Deadline
1.	Final version of the report has been submitted and approved by all partners and stakeholders	WP leader and scientific committee	submitted
2.	The scientific paper has been submitted finalized and submitted to the International Journal of Integrated Engineering	UJ, ASU, BAU, TTU	submitted
3.	ASU should start preparing a new paper based on the survey results.	ASU	May, 2022
4.	Take advantage from the IEEE conference in Budapest to participate and prepare a paper based on ECO-car baseline study outcomes	WP committee	October, 2022

WP 3: Capacity Building

Duration: M5 to M33

Lead University: National Technical University of Athens (NTUA)

Co-Lead University: Applied Science University (ASU), Rheinisch-Westfaelische Technische Hochschule Aachen (RWTH Aachen) & Budapesti Muszaki es Gazdasagtudomanyi Egyetem (BME)

Overall Plan:

Number	Plan	Duration
1	WP leader will set a detailed plan for the WP.	M5
2	WP leader will set selection criteria for the workshops.	M5
3	Workshop topics will be matching the hosting university expertise (Topics in electrical and hybrid vehicles and how to prepare and teach e-courses):	M7-M33

	<p>a. (6) Training workshops in 5 EU countries for (90) academic and technical staff, (M7, M10, M13, M16, M19, M21).</p> <p>b. (1 or 2) Training workshop in 3 or 4 EU countries for (24) students in Europe, (M30-M33).</p> <p>c. (8) Technology-enhanced (In-house) teacher training for (600) staff member.</p>	
4	Progress report to be provided by WP leader every 6 months based on collected feedback from Co-Leaders.	

Dr. Clio Vossou (NTUA) presented the progress of Capacity Building Plan work package and the action plan. Also, each EU partner presented a brief of the training workshop they will held for staff (dates and subjects, etc.) were presented as following:

Table 1: Training Workshops by EU

Universities	Lessons & Laboratory	DATES
BME	<p>Each day will have a focal topic:</p> <ul style="list-style-type: none"> • Trends in automotive sector • Vehicle Dynamics • Drivetrain elements • NVH in e mobility • Infrastructural questions <p>Possible visits to enterprises & manufacturers during workshops One of the days can be substituted with visit at ZalaZONE brand new proving ground and another day could be in Bosch Research Center Budapest.</p>	30 th May – 4 th June 2022
UD	<p>Lessons</p> <ul style="list-style-type: none"> • Hybrid & Electric Vehicle Basics • Dynamics of Vehicles • Teaching methodology <p>MORE: Vibroacoustic Comfort in Road Vehicles; Vehicle Dynamics; Simulation Techniques</p> <p>Laboratory</p> <ul style="list-style-type: none"> • Vehicle modelling using Matlab Simulink Vehicle modelling using Carmaker • Vehicle components modelling using ANSYS Vehicle dynamics characterization by means of experimental measurements <p>MORE: Vibration measurement</p> <p>Visits: the Automotive Intelligence Center</p>	4 – 8th July 2022
TH-OWL	<ul style="list-style-type: none"> • Hybrid and Electric Vehicle Basics • Battery Technology, Charging safety and Recharge infrastructure • Automotive electricity, Electronics, Sensors and Actuators • Teaching methodology <p>Visits: To local manufacturer</p>	22-26th of August 2022

UNIVAQ	<ul style="list-style-type: none"> Hybrid and Electric Vehicle Basics Internal combustion engines in hybrid vehicles Well to wheel LCA Calculations 	5 – 9th September 2022
NTUA	<p>Lessons</p> <ul style="list-style-type: none"> Hybrid and Electric Heavy Vehicle Basics EV & HEV Technology and hazardous material Dynamics of vehicle, active and passive safety <p>Laboratory</p> <ul style="list-style-type: none"> Vehicle dynamic measurements Vehicle modeling using Matlab Vehicle modeling using TruckSim <p>Visits Local Manufacturer of heavy vehicle's superstructures</p>	26 – 30th September 2022
RWTH - Aachen	<p>Lessons</p> <ul style="list-style-type: none"> Short lecture on the Fundamentals of Electromobility Extensive lecture on the fundamentals of Batteries and their Application in Electromobility (Principles, aging, battery packs, battery management systems, etc.). Digitalization of teaching. <p>Laboratory A laboratory training on battery fundamentals can be provided.</p> <p>Visits Under investigation (Ford production plant / Etron production of Audi in Brussels)</p>	7 – 11th November 2022

Also, the **main criteria of selection of the staff** has been set up, as following:

- Professional background / academic degree
- English skills
- Gender
- Time of apprenticeship
- Plans for the professional future at the university
- Relevance to the main subject of the workshop
- Involved in the preparations of ECO-CAR clusters courses

Each **training workshop** has **material to be set and developed** as following:

a) Material for each workshop (before)

- Have to be set
 - Training goals
 - Learning objectives
 - Learning methods
 - Documentation of learning
- Has to be developed the training material:
 - Examples
 - Exercises
 - Learning activities
 - Case Studies
 - Has to be prepared



- b) Material for each workshop (after)
- Has to be prepared:
 - Report documenting each workshop

Following were agreed on:

No.	Task	Due Date
1.	Next online workshop will be by ASU	14.03.2022
2.	Update the “Capacity Building Plan” report to include the physical training workshops and their topics, based on Athens meeting outputs.	31.03.2022
3.	Start preparing for the teaching material for staff workshops (Set outlines, objectives, goals, teaching methods, etc.)	To be set upon finalizing courses outlines
4.	Circulate the physical workshops schedule and topics to the partners	March, 2022
5.	Online workshops have been accomplished for EU partners	Accomplished
6.	JO has started their online workshops. ZUJ, MU, TTU, BAU have to send to ECO-CAR their workshop subjects, dates, and presenter.	03.04.2022
7.	Each EU partner has to select the exact date, time, and agenda for the upcoming workshops.	22.04.2022
8.	Each JO partner has to name 2 representatives (and other 2 backup names) for each upcoming workshop at EU partner based on their relevance to the workshop topic.	Once the workshops dates and topics are set up

WP 4: Establishment of EV/HEV labs

Duration: M6 to M21

Lead University: Al-Balqa Applied University (BAU)

Co-Lead University: The University of Jordan (UJ), Jordan University of Science and Technology (JUST) & National Technical University of Athens (NTUA)

Overall Plan:

Number	Plan	Duration
1	WP leader will set a detailed plan for the WP.	M2
2	Prepare a list of main components in ECO-CAR centers.	M2
3	WP leader and co-leaders will set the list of needed equipment based on WP2.	M4
4	Central Tender is published.	M10
5	Center is fully equipped and operational.	M18
6	Center establishment.	M21



7	Progress report to be provided by WP leader every 6 months based on collected feedback from Co-Leaders.
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Prof. Rebhi Damseh (BAU) presented the progress of this work package and the action plan. While preparing to distribute ECO-CAR equipment, each University from JO partners is required to allocate a suitable center/Lab in the relevant department. The center/Lab must contain:

- A space for theoretical courses (Smart Classroom) in which a Smart board will be established.
- A separate space (Lab or workshop) must be allocated for the Lab equipment.

Both Locations must satisfy the following requirements:

- The availability of sufficient free space for 15 students according to accreditation criteria.
- The availability of sufficient lighting.
- The availability of appropriate ventilation. (Windows in the Smart Classroom, windows and suction fan for the Lab).
- The availability of sufficient and reliable electrical outlet.
- The availability of student seats in the smart classroom, Workbenches (Tables) and stools in the lab. (For 15 students).
- The Lab must be in the ground Level with external wide entry and sufficient external space for car parking.
- The Availability of Lab Technician.
- The availability of basic Lab furniture (desk, chair, storage space whiteboard etc.).
- The availability of firefighting equipment.

And was agreed on:

No.	Task	Responsibility	Due Date
1.	Receive Equipment by Jordanian Partners	JO partners	May, 2022
2.	Setup equipment in center/Lab in the relevant department	JO partners	May, 2022
3.	Prepare the experiment manual according to the course outline (cluster 9) and the received equipment	Cluster 9 committee	June, 2022
4.	BAU has sent a template for collecting data of the ECO-CAR centers/labs that will host the equipment in each university. Responses are missing from MU and JUST.	MU and JUST	03.04.2022
5.	Provide each partner by the equipment list they will receive	BAU	Accomplished
6.	Prepare and submit the Final Progress report based on collected feedback from Co-Leaders at the end of WP	WP leader	M21

WP5: Developing ECO-CAR Professional Diploma

Duration: M4 to M34

Lead University: Budapesti Muszaki es Gazdasagtudomanyi Egyetem (BME)

Co-Lead University: The University of Jordan (UJ), Technische Hochschule Ostwestfalen-LIPPE (TH-OWL), Rheinisch-Westfaelische Technische Hochschule Aachen (RWTH Aachen) & Universita Degli Studi Dell'aquila (UNIVAQ)

Overall Plan:

Number	Plan	Duration
1	WP leader will set a detailed plan for the WP with due dates.	M4-M6
2	Courses selection based on WP2 results.	M7
3	WP leader will prepare a course outline template with learning outcomes.	M8
4	Creation of committees responsible to develop the selected courses.	M9
5	Diploma accreditation.	M12
6	Tuning Workshop.	M15
7	Courses are developed.	M20
8	Piloting phase.	M16-M34
9	Progress report to be provided by WP leader every 6 months based on collected feedback from Co-Leaders.	

Dr. Mate Zoldy has briefly discussed the progress of this work package and its tasks. Also, presented the action plan for the courses clustering and the clusters committees. Each committee will be responsible to review, modify, enrich and integrated the European experience to the received courses outlines. And followed were agreed on:

#	Task	Responsibility	Due Date
1.	Accreditation of the diploma/courses has to be done to avoid the delays and risks	Local partners	May, 2022
2.	The courses content preparation has been extended	Cluster committees	30 th of April, 2022
3.	Provide the clusters committees with ECO-CAR template for preparing the courses content as PPT	UJ	Accomplished
4.	Monitoring and evaluate plan: give a report about the cluster work status (cl. Lead) to ensure that the work is in progress	WP leader	Till the end of the courses preparations
5.	Virtual learning portal will be established and host by UJ	UJ	July, 2022

6.	Tuning workshop will be conducted in BME	BME	October, 2022
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The courses in all focus groups are 16 weeks (which means a total of 48 hours). However, each cluster committee can modify the number of weeks based on their full study of the courses. The attached excel file has the full details for the courses clustering (team for each cluster, clusters classification. Also, you can reach it online through this link:

https://docs.google.com/spreadsheets/d/1JDJ4ox4911dxQ_GF7DD75UINwTEBC5_v/edit?usp=sharing&ouid=103480218674595258682&rtpof=true&sd=true

Also, the members' allocation per cluster from each university can be reached via this link:

https://docs.google.com/spreadsheets/d/1HNXmpywoUcFZhWVfY--KKcUagqo5E4Zk_IOBGBRejX4/edit?usp=sharing

To reach the clusters drive:

https://drive.google.com/drive/folders/1PsxpKj0RUhjQso_Jryv5fDH4aY6mncIM?usp=sharing

WP6: Quality and Impact Evaluation

Duration: M1 to M36

Lead University: Universidad de la Iglesia de Deusto Entidad Religiosa (UD)

Co-Lead University: Tafila Technical University (TTU), Al-Zaytoonah University of Jordan (ZUJ) & Budapesti Muszaki es Gazdasagtudományi Egyetem (BME)

Overall Plan:

Number	Plan	Duration
1	Quality committee will be formed during the kick off meeting.	M1
2	WP leader will set a detailed plan for the WP with due dates.	M2
3	WP leader will prepare online evaluation links for all meetings, workshops and circulate them to partners after each event, and the results will be analyzed by the co-leaders.	M2
4	WP leader will prepare the Quality assurance tools.	M5
5	WP leader will prepare online evaluation links for all piloted courses, and circulate them to partners, and the results will be analyzed by the partners.	M10
6	Courses will be peer reviewed against a developed checklist.	M12
7	External evaluator will be appointed by WP leader.	M12



8	Progress report to be provided by WP leader every 6 months based on collected feedback from Co-Leaders.	
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Dr. Ivan Dyukarev presented the progress of Quality and Impact Evaluation Plan work package and the action plan for the next stages, and following were agreed on:

No.	Task	Responsibility	Due Date
1.	Evaluate the meeting	UJ	During the meeting
2.	An amendment to UD partner agreement to add the EE budget to their university.	UD, UJ	May, 2022
3.	Submit Monitoring Report that evaluating the 1 st year of ECO-CAR	UD	30 th of April, 2022
4.	Check the quality of the submitted courses outlines	UD	Once the courses outlines are finalized
5.	Update the surveys that evaluating ECO-CAR meetings to include more factors (especially for physical meetings)	UD	07 th of April, 2022
6.	Conduct a meeting with the quality committee meeting.	UD and UJ	04 th of April, 2022 10:00 - 11:00 CET
7.	WP leader will prepare online evaluation links for all piloted courses, and circulate them to partners, and the results will be analyzed by the partners .	UD	Once the courses are ready
8.	Quality and technical check for courses outlines and content by quality committee	Quality committee	May, 2022

WP7: Dissemination and Sustainability

Duration: M1 to M36

Lead University: Al-Hussein bin Abdullah II Technical University (HTU)

Co-Lead University: Mutah University (MU), Al-Zaytoonah University of Jordan (ZUJ) & Technische Hochschule Ostwestfalen-LIPPE (TH-OWL)

Overall Plan:

Number	Plan	Duration
1	Dissemination committee will be formed during the kick off meeting.	M1
2	Project website will be designed, hosted and managed by University of Jordan.	M1
3	Facebook page will be created and managed by University of Jordan.	M1

4	Promotional Materials will be designed by Work Package leader.	M2
5	WP leader will set a detailed plan it will include plans for Dissemination, Sustainability and Networking.	M3
6	E-Learning platform will be created and managed by University of Jordan.	M12
7	Tester courses workshops and will be organized in Jordan.	M18
8	A three-day Final dissemination conference will be held at University of Jordan.	M35
9	Progress report to be provided by WP leader every 6 months based on collected feedback from Co-Leaders, the report will cover all Work packages.	

Prof. Tarek Tutunji discussed the progress of Dissemination and Sustainability Plan work package and the action plan for the next stages. The dissemination committee has been updated as following:

Dissemination Committee Members

	University	Representative / email	Deputy (Substitute) / email
P1	The University of Jordan	Prof. Mohammed Hamdan mhamdan@ju.edu.jo Eng. Rasha Al-Beek rashaalbaik93@gmail.com	Eng. Sara Tweissi Sara.tws.st@gmail.com
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and following were agreed on:

No.	Task	Responsibility	Due Date
1.	WP leader has approved the final version of the Dissemination and Sustainability Plan with the steering committee	HTU	Accomplished
2.	HTU will prepare the 2nd newsletter and will distribute it to the partners to collect their feedback	HTU	15.03. 2022
3.	New progress will be adopted to collect the newsletter content	HTU	Continuous progress
4.	HTU will update the website content in cooperation with UJ	HTU and UJ	Continuous progress
5.	Add ECO-CAR links to partners' websites	All partners	May, 2022
6.	Schedule and implement the Info-days across the project timeline and among JO universities	JO partners	Collect a pre-selected dates by 24.04.2022



7.	Mutah University will prepare info day	MU	28-29 th of March
8.	TTU will prepare info day	TTU	10.05.2022
9.	Start preparing for marketing plan in cooperation with other co-leaders	HTU and Co-leaders	May. 2022
10	Add material on the YouTube Channel in order to attract subscribers and viewers and add LinkedIn activities	HTU	Continuous progress

The following link is for the WP drive to upload the supplement documents:

https://drive.google.com/drive/folders/1sg9BxYMmd3004tJp_9cxtBrAbgNdoB5V?usp=sharing

WP8: Project Management

Duration: M1 to M36

Lead University: The University of Jordan (UJ)

Overall Plan:

Number	Plan	Duration
1	A Steering Committee (SC) will be established during the kick-off meeting part 2 with 1 representative from each partner.	M1-M36
2	A Technical and Scientific Committee (TSC) will be established during the kick-off meeting part 2.	M1-M36
3	6 coordination meetings will be conducted in Amman (KOM), Budapest, Aachen, Athens, Deusto and Amman (FC).	M1-M36
4	Monthly virtual status meetings via web-conferencing.	M1-M36
5	Regular communication will be conducted by e-mail and shared electronic database.	M1-M36
6	Progress report will be prepared every six months.	M1-M36

Prof. Ahmed Al-Salaymeh presented the progress of each work package and what is needed from partners, as tasks and activities of Project Management work package and the action plan for the next stages, and was agreed on:

No.	Task	Responsibility	Due Date
1.	Technical and Scientific Committee (TSC) has been updated for JUST	UJ	Done
2.	UJ will start the invitation letter process for Budapest workshop	UJ	April, 2022



3.	Schedule the 11th online management meeting.	UJ	11.05.2022 4-6 PM (Amman time)
4.	Regular communication will be conducted by e-mail and shared electronic database	UJ	Continuous Progress
5.	Next steering committee meeting will be at TH-OWL in Germany	TH-OWL	30th of June- 1st of July, 2022
6.	The 3 rd steering committee meeting will be in BME	BME	October, 2022

Finally, Prof. Ahmed has presented the conclusion of the 2 days meeting and got the final confirmation for the resulted tasks and decisions. Prof. Ahmed thanked participants for their attendance and thanked the host partner for their efforts in conducting the meeting.

Meeting Evaluation Link:

https://docs.google.com/forms/d/e/1FAIpQLSdW0MQG5y29-kffV8VizqPLyrtkmE55ASzrDfg3o1GiywRYLQ/viewform?usp=pp_url

Visit to Vehicles Laboratory in NTUA

On Friday, 11th of March, a visit has been conducted for ECO-CAR partners to the vehicles laboratory (VLab) at the school of mechanical engineering. The VLab was established in 2001 with a research team of approximately 15 people, researchers and technical staff.

The visit has introduced the VLab equipment, which are:

- Automated machine tools (CNC, NC).
- Specialized instruments and devices (ultrasound devices, axle alignment devices).
- Devices and set-ups for the measurmetn of the dynamic characteristics of vehicles (accelerometers, speed and height sensors).
- Devices and set-ups for the stress and strain state of structures (strain gages).
- Software for the analysis, synthesis, simulation and optimization of structures and vehicles (ANSYS, Solidworks, ADAMS, CATIA, CarSim, TruckSim, MATLAB, LabView, LS-DYNA).
- An Ultimaker S5 3D printer.

VLab focuses on covering the educational needs regarding the area of vehicles, both at undergraduate and postgraduate level.

Workshop for Project Implementation by Partner Universities in Jordan

A workshop has been conducted on Saturday, 12th of March. The aim of the workshop is to discuss the implementation of ECO-CAR project in each JO university by covering the following:

- ✓ ECO-CAR team at partner university
- ✓ Achievements in networking
- ✓ Achievement in WP5 (final list of courses, Accreditation process, ECO-CAR offered courses each semester)
- ✓ Courses piloting and implementation reports
- ✓ ECO-CAR Centre/ Lab at partner university for equipment procurement, installation place and usage (supported with photos)
- ✓ Conducted dissemination activities and info days
- ✓ Conducted quality activities (submitted progress reports)
- ✓ Future vision and upcoming tasks

It was agreed on that each university will adopt the following ECO-CAR diploma(s):

University	Diploma
The University of Jordan (UJ)	Professional and Vocational Diplomas
Jordan University of Science and Technology (JUST)	Vocational Diploma
Mutah University (MU)	Professional and Vocational Diplomas
Tafila Technical University (TTU)	Community College Diploma
Al-Balqa Applied University (BAU)	Community College Diploma
Al-Hussein bin Abdullah II Technical University (HTU)	Professional and Vocational Diplomas
Applied Science University (ASU)	Professional and Vocational Diplomas
Al-Zaytoonah University of Jordan (ZUJ)	Vocational Diploma



Photos

The meeting and workshop photos can be reached via this link:

<https://drive.google.com/drive/folders/1HEQQ2xntjihhBz-zYZkVWdJBy962g1Ob?usp=sharing>