



**Modernising Undergraduate Renewable Energy Education:  
EU Experience for Jordan  
MUREE  
Kick-off Meeting  
14-15 November 2012  
Princess Sumaya University for Technology, Amman, Jordan  
Minutes of Meeting**

**Attendees**

1. Abdallah Al-Zoubi, Issa Batarseh, Wejdan Abu-El-Haija, Ayman Fazeh, Sanad Kawar, PSUT
2. Ahmad Salaymeh, Ahmad Sakhrieh, Saana Aqad, University of Jordan
3. Suhil Kiwan, JUST, Jordan
4. Ayman Al-Maaitah, Mutah University, Jordan
5. Mohammad Mismar and Bashar Hammad, Hashemite University, Jordan
6. Jens Palacios Neffke TUB, Germany
7. Salvador Ros, UNED, Spain
8. Katuscia Cipri and Fabrizio, Sapienza University of Rome, Italy
9. George Georghiou and Maria Hadjipanayi, University of Cyprus, Cyprus
10. Annette Muetze, Graz University of Technology, Austria
11. Rafael Jiménez Castañeda, IGFoton, Spain
12. Mansour Al-Hallaj and Sami Adamat, NETenergy, Jordan

The kick-off meeting attendees were welcomed by the president of Princess Sumaya University for Technology, Professor Issa Batarseh who delivered a welcoming speech. Professor Ahmad Abu El-Haija, Director of the National Tempus Office in Jordan also attended this opening session, and gave welcoming remarks.

1. The KoM then commenced with a presentation by each partner giving a brief history of the institution, an outline of the expertise in renewable energy and possible role in the project as well as a brief on team members.

2. Professor Abdallah Al-Zoubi, Project Manager, gave a complete description of the project, its workplan, workpackages, deliverables and budget. The tasks allocated for each partner were discussed with durations and deadlines. The schedule for the first 6 months of the project was discussed and it was decided that:

- Professor Suhil Kiwan, JUST, will lead a scoping and needs analysis exercise (DEV1.1) to investigate the current status quo of renewable energy in Jordan. The investigation will commence with desk research, survey on paper and online formats, and interviews with appropriate stakeholder, focusing on all academic programmes being in offer in the field of renewable energy, actual market demands, and trends and needs as well government policies and regulations. PSUT and MUTAH will aid JUST in this task. The investigation should be concluded by 28 February 2013.
- Professor Suhil Kiwan, JUST, will prepare a report on current situation and need of RE (DEV.1.2) to include the most appropriate nature of theoretical, practical and training

content to embed in courses of bachelor degree programme. JUST will be aided by PSUT, UoJ, MUTAH and HU in preparing the report. Representatives of universities of Jordan should meet at PSUT in February in order to finalize the report. The report should be delivered by 30 March 2013 and will form the basis of discussion for the “Workshop on Curricula Updating” (DEV2.1) to be held in Graz University of Technology (TUG).

- Top management of Jordan Universities and contact persons will visit Sapienza and UNED in order to have a first-hand look at the Bologna Process and its implementation in renewable energy education (DEV1.1). UNED and Sapienza staff will organise the visits. Professor Cipri, Sapienza, will specify the appropriate time of the visit to Sapienza by 15 December 2012 in order to allow Professor Kiwan and Professor Al-Zoubi (PSUT) to start preparing the visits with Jordanian universities.
- The 2-day Workshop on Curricula Updating will be held at TUG in the period 10-12 April 2013 in order to update the curricula and study plans and select the pilot courses on the basis of the report of DEV1.2. A tentative list of courses will be included in the report.
- Meeting in Austria TUG in 10-12 April 2013: Professor Muetze, TUG, suggested that a 2-day roundtable (DEV5.1) be held in conjunction with this activity in order to prepare a long-term capacity building plan aimed at developing human resources and upgrading skills and capacities of university professors, technical assistants and students in the field of Renewable Energy.

Sapienza will prepare a report identifying the 4 pilot courses to be designed and adapted, the eLearning courses. These courses will then require internal approval within the institution following proper procedures. Partner universities start running courses in October 2013.

3. The consortium then decided to form the 4 committees as stated in the MUREE proposal as depicted in the following table:

Partner	Steering	Scientific	Quality	Dissemination
PSUT	Abdullah Al-Zoubi	Issa Batarseh	-	-
UoJ	Ahmad Salaymeh	Ahmad Salaymeh		Ahmad Salaymeh
JUST	Suhil Kiwan	Fahmi Abu Alrub	-	Gais Khasawneh
MUTAH	Ayman Maaitah	Ayman Maaitah	Handri Ammari	Hussien Al-Majali
HU	Mohammad Mismar	Bashar Hammad	-	-
IUB	Günther Seliger	Jens Palacios	Jens Palacios	Carsten Reise
UNED	Manuel Castro	Salvador Ros	-	-
Sapienza	Naseo	Katiuscia Cipri	-	-
UCY	George Georghiou	Maria Hadjipanayi	-	George Georghiou
TUG	Annette Muetze	Krishai	Annette Muetze	-
IGFoton	Rafael Jiménez	Rafael Jiménez	Rafael Jiménez	-
NETenergy	Said Al-Hallaj	Said Al-Hallaj	Said Al-Hallaj	-

4. Dr. Salvador Ros, representatives from UNED, gave a presentation on virtual laboratories and distance learning. The presentation included examples on existing online resources such as

Lab2go, Alecop, Lucas-Nulle, and Edibon. A committee was formed to follow all matters related to the design and implementation of remote laboratories, which included the following:

- (1) Dr. Salvador Ros from UNED
- (2) Dr. Abdallah Al-Zoubi, Princess Sumaya University for Technology
- (3) Dr. Bashar Hammad from Hashemite University

A visit will take place by PSUT and HU to UNED to discuss the development of virtual learning environment (VLE) (DEV3.1) and the selection and design of remote labs (DEV4.1). The committee members will together to identify the most appropriate timing of the visit.

5. Dr. Ahmad Al-Salaymeh from University of Jordan made a presentation on the MUREE Website (9DEV.7.4) and highlighted the UoJ experience in designing websites for Tempus projects. They will be working on the interface for the MUREE project which is expected to finish by 1 January 2013.

6. The participants discussed the timing and nature of funding allocation among the participating partner institutes, and the following decisions were made:

- For EU partners: an initial 30% of the fund will be provided in the first year (50% of the 60% already received by PSUT from EU). Institutes will be responsible for providing all the invoices and deliverables by the end of the year, including IMRs, tickets, and boarding passes. An additional 30% would be provided at the beginning of the 2<sup>nd</sup> and 3<sup>rd</sup> years of the projects. The final 10% of the budget will be provided upon the completion of the project.

The project manager, Dr Abdallah Al-Zoubi, and the financial manager, Mr. Yazan Abu Yaghi, has reservation on this scheme and preferred to transfer in advance the costs and expenditure of each year at its beginning since the funding is based on deliverables and the budget is only indicative. Both Dr Al-Zoubi and Mr. Abu Yaghi preferred to wait for approval of this scheme until the consult with the Tempus Team in Brussels during the Tempus representative meeting in the period 26-27 November 2012. An MoU will also be prepared to be signed by PSUT and each partner.

- For Jordanian partners: a down payment of 5000 EUR will be provided for each institute. All travel and staff costs will be handled centrally at PSUT.

7. Additional Notes: the participants discussed the possibility of adding a common MUREE stamp for all paperwork, but after discussions, everyone decided it was not necessary.

### Deadlines and Deliverables

The following table presents a time table for the deliverables of the first year of the MUREE project

Deliverable	Deadline	Responsible Parties	Partners
1.1	28.02.2013	Kiwan	JUST, PSUT, UoJ, HU,
1.2	30.03.2013	Kiwan	JUST, PSUT, UoJ, HU, Mutah
1.3	15.12.2012	Cipri, Kiwan and Al-Zoubi	Sapienza, JUST, PSUT
2.1, 5.1	10-12.04.2013	Muetze, Georghiou	TUG, UCY



3.1	10 January 2013	Al-Zoubi, Hammad	PSUT, UNED, HU
4.1	10 January 2013		PSUT, UNED, IGFOTON