DEV 1.3 Report on Innovation and Research Management Landscape in Jordan

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Modernisation of Institutional Management of Innovation and Research in South Neighbouring Countries (MIMIr)

This report describes the landscape and state-of-the-art of innovation and research management in Jordan.¹ Part of the Modernisation of Institutional Management of Innovation and Research in South Neighbouring Countries (MIMIr) project, the report is focused on the situation in this project's Jordanian partner institutions: the Jordan University of Science and Technology (JUST), the Al-Balqa Applied University (BAU) and the University of Jordan (UJ). It is based on state of play analyses provided by these partners² and a field visit.³

Both the state of play analysis and field visit make it clear that innovation and research management is an uneven landscape in Jordan, with considerable differences currently existing between the three partner institutions. During the field visit it became apparent that the MIMIr project has already contributed to greater collaboration between the Jordanian partners, notably by making JUST and BAU aware of the advances UJ is making with its Innovation and Entrepreneurship Center. BAU has concrete plans to establish a similar centre and has been in contact with UJ bilaterally to learn from their experience.

State of play analysis of innovation and research management in Jordan

The state of play analyses provided by the Jordanian partner institutions reveals several key challenges and opportunities to advance innovation and research management in this country. Structured around the good practices discussed by the European partners during a focus group,⁴ these challenges and opportunities notably include:

- Building institutional support capacity: the state of play analysis of Jordan indicates that institutional support capacity exists in the form of dedicated offices, but lacks a strategic focus and has to deal with scattered responsibilities
- Hiring and training specialised support staff: Jordanian partner institutions see an opportunity to develop capacity building programs and a manual for support staff
- Supporting research with effective funding strategies and allowing for bottom-up flexibility, while providing top-down support: the state of play analysis of Jordan indicates that existing

¹ MIMIr work package 1, outcome 1.3.

 $^{^{2}}$ MIMIr work package 1, outcome 1.1.

³ MIMIr work package 1, outcome 1.2. The field visit to Jordan took place on 14-16 February 2017 and was carried out by Dr Bregt Saenen (European University Association) and Zeineb Mazouz (Universitat de Barcelona).

⁴ MIMIr work package 2, outcome 2.1. The focus group was held on 15 September 2016 in Milan, Italy.

- strategies are hampered by the large variation of decision-making procedures and accountability mechanisms
- Selecting and training research staff: Jordanian partner institutions indicate many training incentives exist, but the lack of doctoral programmes or a culture of training the trainers are major obstacles in this regard
- Evaluating research staff: the state of play analysis of Jordan indicates the opportunity to develop a well-defined strategy in this regard, while, importantly, also detailing the societal basis for evaluation in its research and innovation priorities

Field visit to Jordanian partner institutions

The field visit to the Jordanian partner institutions provided the European partners with an opportunity to gain first-hand knowledge of the innovation and research management landscape, notably discussing key challenges and opportunities with local academic leaders and professionals.

Visit to the Jordan University of Science and Technology (14 February 2017)

The field visit to JUST on 14 February 2017 was guided by Dr Mohammad Malkawi (CEO of the Counterfeit Combat Technology, a spin-off of JUST). The visit included meetings with Professor Ahmed M. Elbetieha (former Vice President of JUST) and Professor Fahed H. Awad (Director of the Center of Excellence for Innovative Projects), as well as a visit to and discussion with the research staff of the aforementioned Counterfeit Combat Technology spin-off.

Guided by the state of play analysis provided by JUST before the field visit, the discussions focused on international mobility programmes to send graduate students to American and European universities and efforts to ensure they return upon completing their doctoral degree, including financial incentives. Exchanges with American universities are more established than with European counterparts, but the current political situation is seen as a window of opportunity to strengthen the latter. Also discussed was the challenge of innovation and research in a top-down management culture. It was flagged that this leads to strategic changes when academic leadership is handed over, potentially hindering innovation as researchers cannot rely on a consistent framework in which to develop their work. Sustainable financial resources were flagged as another main challenge. The INVENT project on collaboration between universities and companies was also briefly discussed.

Visit to the Al-Balqa Applied University (15 February 2017)

The field visit to BAU on 15 February 2017 was guided by Dr Naser Al-Manaseer (Civil Engineering Department). The visit included meetings with Professor Saad A. Abo-Qudais (Vice President for Scientific Research and International Cooperation) and Dr Hazem Sharef Hasan (Faculty of Agricultural Technology).

The discussion focused on the planned establishment of an innovation and research centre, inspired by a similar centre at the University of Jordan (cf. infra). The centre is planned to be an independent body in support of both professors and students seeking to link the outcomes of their work with companies and society at large. Sustainable financial resources were flagged as the main challenge. During the discussion, it became apparent that the training of support staff is also seen as an essential element to have the centre succeed in its mission. The international cooperation department is also being restructured to better promote the international mobility of graduate students. Curricula at all levels are being revisited and reformed to adapt them better to the labour market.

Visit to the University of Jordan (16 February 2017)

The field visit to UJ on 16 February 2017 was guided by Professor Abeer Al-Bawab (former Dean of Academic Research), as well as Professor Rana Abu-Dahab (School of Pharmacy) and Dr Ashraf Bany Mohammed (Director of Innovation and Entrepreneurship Center). The visit included meetings with Professor Shaher Momani (Dean of Academic Research), Dr Motasem Saidan (Director Water, Energy & Environment Center) and Professor Yasser Bustanji (Director of Hamdi Mango Center for Scientific Research), as well as a visit to and discussion with the research staff of the aforementioned Innovation and Entrepreneurship Center, Water, Energy & Environment Center and Hamdi Mango Center for Scientific Research.

Guided by the state of play analysis provided by UJ before the field visit, the discussions focused on many of the same challenges as during the previous visits, notably finding sustainable financial resources, the limited interest in collaboration from the Jordanian private sector and the top-down management culture.

The visit to the Innovation and Entrepreneurship Center gave a more detailed insight in these challenges and how the Center is trying to improve the situation, for example by forging more structural links with companies rather than leaving this to the personal contacts of professors. Again it was mentioned that the services by the Center extend to graduate students.

The visit to the Water, Energy & Environment Center gave a better insight in some of the opportunities for innovation and research management in Jordan, as their services are born out of and relevant to the needs of the Jordanian society. While the Center is confronted with the same challenges, some of its recent success stories in terms of collaborating with the Jordanian and foreign governments shows a path forward.