

## Establishment and Equipping CTIs

JUST

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Co-funded by the  
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## Document Data

*Deliverables: 3.1-3.3 Establishment and equipment of CTIs*

*Work Package No & Title: WP3 - Establishment and Equipment of the CTIs*

*Work Package Leader: JUST, PSUT (Jordan), HTWK (Germany)*

*Partners involved: All JO partners*

*Distribution level: Public*

*Reviewed by: Dr. Riyad (HTWK), Prof. Omar Maaytah (MU)*

*Document Version: 0.1 (draft)/1 /2*

*Status: Final*

## Document History

Version	Date	Author/Organization	Changes
Draft	12 June 2016	Prof. Fahmi Abu Al-Rub	Minor text changes
Final	1 Oct 2018	Prof. Fahmi Abu Al-Rub	



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## INTRODUCTION

The basic results of the INVENT project activities are the establishment of Centers for transfer of innovations (CTI) at the Jordanian universities and departments at non-academic organizations and institutions. Their activity is provision of entrepreneurs with innovations for introduction into process of production. It was proposed to establish 4 CTIs at the 4 JO HEIs of the INVENT partners ; JUST, UJ, MU, PSUT, in addition to 2 units or departments at 2 nonacademic organization associations; ASRF, Almuthadah. The 6 offices were supposed to be equipped for functioning of the centers and their departments. However, equipping the nonacademic institutions was not eligible, and thus, Almuthadah could not establish its unit. Alternatively, JUST established a unit for collaboration with the industry, and ACI established the Industrial Innovation Program Unit which aims at linking the industrial sector with HEIs, developing the national industry and increasing its competitiveness through cooperation with researchers working in the research sector and the academic sector, maximizing the national product competitiveness advantage by increasing technological component, product development and industrial innovation, building a real partnership between the research sector (the academic sector) and the industrial sector to support the national economy and open up new horizons for cooperation.



## DEVELOPMENT WORK PACKAGE

### WP3: Establishment and Equipment of the CTIs

The main objective of WP3 is establishing and equipping the CTIs with the needed equipment. To achieve this objective, three tasks were proposed:

- 3.1 Establishment of center offices and departments
- 3.2 Hardware equipment at the Centers
- 3.3 Installation and adjustment of software

Thus, the expected outcomes of this work package were:

- 3.1 Establishment of CTIs at JO HEIs; Nr. 4,
- 3.2 Hardware equipment at the established CTIs,
- 3.3 Installation and adjustment of software.

#### 3.1 Establishment of CTIs

Four CTIs were established at the 4 JO HEIs of INVENT; namely JUST, UJ, MU, and PSUT. In addition to these CTIs, ASRF, JUST, and ACI established units for the cooperation of the Academia and Industry.

##### 3.1.1 The CTI at JUST

The CTI at JUST was called the Center of Excellence for Innovative Projects (CEIP). Its main objective is the same as that of INVENT: to provide the appropriate technical environment to support and sponsor innovators from both university and local community. The center includes a range of facilities and services to support and sponsor innovative people, develop their skills and innovation, starting from creating the initial product, passing to the service model and finally the establishment and the commercial launch of small businesses. The technical incubator provides the necessary technical support to design and build prototypes of products or services. The Training department develops the personal, technical skills and entrepreneurial skills of the innovators. The Marketing department promotes products and services, attracts customers and investors. The Technology Transfer Office is

concerned with the protection of intellectual property rights by documenting creative ideas, registering patents and managing them.

The Center also sponsors and supports pioneering and creative initiatives that benefit the university or the community or contribute to solving economic, social, and academic or health problems.



Fig.1: a. Center of Excellence for Innovative Projects, JUST.

### 3.1.1 The CTI at UJ

The established CTI at UJ was called the University of Jordan Innovation and Entrepreneurship Center UJIEC. It was established by decree from UJ Board of Trustees, to be a one-stop support hub for innovators and entrepreneurs at the University of Jordan in collaboration and partnership with all stakeholder in both public and private sector. The mission of the center “To promote and foster innovation and entrepreneurship culture, education, training and practice to create a generation capable of making a real contribution to the economic development in Jordan,” is one of main goals of INVENT. UJIEC team consist of 6 full time employees along with 15 part-time volunteers, UJIEC offers different services entrepreneurs and innovators in UJ: Pre-Incubation Support services (Business plan development), Prototype development funding, Mentorship services, Training and Education, Patent Registration support services, Networking and Events, and Co-working and collaboration space.



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Centre for Transfer of Innovation (CTI) provides various courses and trainings: the training and business plan development, introduction to innovation systems, sales and marketing skills, feasibility study development, pitching skills, mentorships (in collaboration with Blue ocean council and int@j), incubation services (in collaboration with ACC), technology transfer (in collaboration with JCI), business competitions, and networking events.



Fig.3: a. University of Jordan Innovation and Entrepreneurship Center, UJ.

\*9: University of Jordan Innovation and Entrepreneurship Center.

### 1) The Center for Consultancy and Training (CCT), PSUT

It works on the planning and presentation of courses which are involved with computer applications and providing the training in the different disciplines offered by the University. In general, the trainings are well demonstrated to prepare graduates for the market.

The Center provides different training courses for the local community and used to carry out training for governmental institutions. The center provides specialized services in the field of ICT, training and consulting.

The Center for Consultancy and Training aims to: 1) provide specialized training courses to serve the local community, organize training courses and workshops, that can develop the participants' capabilities, expertise and academic and professional qualifications. 2) contribute the development of human resources through the holding of courses, workshops, educational programs and special examinations to build and develop the technical capabilities of members of the workforce.



The center provides co-funded equipped lab with INVENT, which help the center to provide the good environment for working in innovation projects. Fig1 shows the CCT lab\*2.



Fig.2: a. Center for Consultancy and Training, PSUT.

## 2) Innovation and Entrepreneurship Center, MU.

University of Mu'tah launched the idea of establishing a center of entrepreneurship in order to support the university staff and students and the surrounding community; providing helpful environment for entrepreneurship in matching the scientific and applied scientific through the provided services: incubating project ideas and scientific research, consulting services, in addition to contributing financial support and internal and external grants through external donor channels and partnership with Public and private sectors as part of business partnerships.

The idea of establishing this center is to meet the needs of developing innovation projects by the suitable environment; to provide the student, staff or community beneficiaries with all the necessary facilities and infrastructure that help entrepreneurship.

\*4: Innovation Center.





Fig.4: a. Innovation Center, MU.

## EQUIPMENT

The previous mentioned centers, which are located in the co-beneficiary universities were equipped by INVENT, at least with one office room. The amount spent for equipment was about 5,000 Euro more than the originally allocated budget.

The project proposal envisaged for all JO HEIs partners the purchase of high-performance hardware; i.e., PCs and laptops. The list of equipment needed was finalized by HTWK, the WP members.

A tender was submitted by JUST on March 17, 2016 to purchase the first batch of equipment needed by all JO CTIs. Based on the offers received, the Central Tenders Unit at JUST has qualified a local supplier to provide the needed equipment. The equipment have been installed and operated at each CTI by the end of March 2017. In order to minimize the cost of equipment and software, the WP committee decided to install the software needed at each university computer center. This will save the cost of software; which will enable the partners purchase more hardware equipment. In October 2016, the Electronic Town Meeting was organized. Such electronic meetings require tablets and laptops to carry out and manage the activities of these meetings. Thus, tablets and laptops were purchased.

A second tender was also submitted by JUST in October 2017 to purchase the remaining list of quipment, e.g., laptops, data shows, printers, etc. Equipment were received and installed during June-Sept. 2018.

All equipment were installed in all CTIs. The equipment were installed in the CTI of each HEI and were mainly used by the teaching staff and the students involved in the courses and activities that used of the project outputs within the teaching activities.

During the implementation of the project, some CTIs needed 3-D printers for the projects they incubated. These 3-D printers were needed to produce prototypes for some of the projects that are incubated at the CTIs. However, these 3-D printers were not among the required equipment list in the original proposal. A request was made to the Project Officer to purchase these printers with the justifications, and the request was approved, on a condition not to ask for additional budget from EACEA. Since the needed software was installed by the Computer Centers at each HEIs; some savings resulted in the installation costs. These savings were used to purchase the 3-D printers.

The Hardware units purchased and installed in the CTIs include:

Nr. 185 PCs; Nr. 25 laptops; Nr. 1 server; Nr. 18 printers; Nr. 8 tablets; Nr. 8, data shows; Nr. 7 3-D printers.

The challenges we encountered during the purchasing were related to the lengthy process of the tendering and the VAT exemption that Erasmus+ have. Tendering process at all JO public HEIs is very lengthy and usually does not proceed smoothly. At least it takes one year from the time of tendering submission to the time of receiving the equipment. Three to four additional months are needed to install the equipment in the centers. Suppliers of equipment are not familiar with the procedure for VAT exemption and they usually try to avoid these procedures by asking to pay the VAT directly by the university. To avoid this problem, it was mentioned in the tendering calls that all equipment are VAT exempted.

