



# Impact Study

Erasmus+ Key Action 2: Capacity Building in Higher Education  
Projects in Egypt (2015-2017)

July 2021

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## Introduction

This Impact Study aims at showcasing the good practices and achievements of the Erasmus+ Key Action 2: Capacity Building in Higher Education funded under the first three calls for proposals of this phase of the program during 2015-2017<sup>1</sup>. Selection of these generations of projects was made to assess the results and achievements of the projects after the eligibility period of project funding.

An online questionnaire was designed to collect information from projects under study and to separate impact reports per project to give more details and explanation to the survey filled in. The current situation of COVID-19 hindered the National Erasmus+ Office – Egypt from making field interviews, informal online correspondence took place whenever needed to clarify the information presented.

This study will summarize the impact of projects on:

- Curriculum Development
- Entrepreneurship & Employability
- Inclusion and Student Empowerment
- Modernisation of Governance and Management of HEIs
- Teaching and Learning: E-learning, Lifelong Learning

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<sup>1</sup> Please refer to the Annex for projects' summaries

# Background

## Erasmus+ Program

Erasmus+ is the EU Program in the fields of education, training, youth, and sport for the period 2014-2020. Education, training, youth, and sport can make a major contribution to help tackle socio-economic changes, the key challenges that Europe will be facing until the end of the decade and to support the implementation of the European policy agenda for growth, jobs, equity, and social inclusion.

Erasmus+ Program builds on the achievements of more than 25 years of European programs in the fields of education, training and youth, covering both an intra-European as well as an international cooperation dimension. Erasmus+ is the result of the integration of the following European programs implemented by the Commission during the period 2007-2013.

The Erasmus+ Program shall contribute to the achievement of the objectives of the:

- Europe 2020 Strategy.
- Strategic Framework for European cooperation in education and training (ET 2020).
- Sustainable development of Partner Countries in the field of higher education.
- Renewed Framework for European cooperation in the youth field.
- Development of the European dimension in sport.
- Promotion of European values in accordance with Article 2 of the Treaty on the European Union.

## Key Action 2: Capacity Building in Higher Education

This action contributes to the development of sustainable and inclusive socio-economic growth in Partner Countries and should ensure development and EU external actions objectives and principles, including national ownership, social cohesion, equity, proper geographical balance, and diversity. Special attention will be given to the least developed countries, universities in more remote areas, as well as to disadvantaged students from poor socio-economic backgrounds and to students with special needs.

Capacity-building Projects are transnational cooperation projects based on multilateral partnerships, primarily between higher education institutions (HEIs) from Program and eligible Partner Countries. They can also involve non-academic partners to strengthen the links with society and business and to reinforce the systemic impact of the projects. These projects may primarily aim to:

- improve the quality of higher education and enhance its relevance for the labor market and society.
- improve the level of competences and skills in HEIs by developing new and innovative education programs.
- enhance the management, governance and innovation capacities, as well as the internationalisation of HEIs.
- increase the capacities of national authorities to modernise their higher education systems, by supporting to the definition, implementation, and monitoring of reform policies.
- foster regional integration and cooperation across different regions of the world through joint initiatives, sharing of good practices and cooperation.

## Egyptian Institutions Participation

Out of 131 proposals submitted through the first three calls for proposals of Erasmus+ Key Action 2: Capacity Building in Higher Education where Egyptian Higher Education Institutions participated, 26 projects were selected for funding with a success rate of 19.84%.

The selected projects 2015-2017 for funding represented 23% of the projects in the South Mediterranean Region with a total funding that exceeded 24.5 million EUR.

The graph below shows the participation of Egyptian Higher Education Institutions in 2015-2017 generations of Capacity Building in Higher Education Projects:

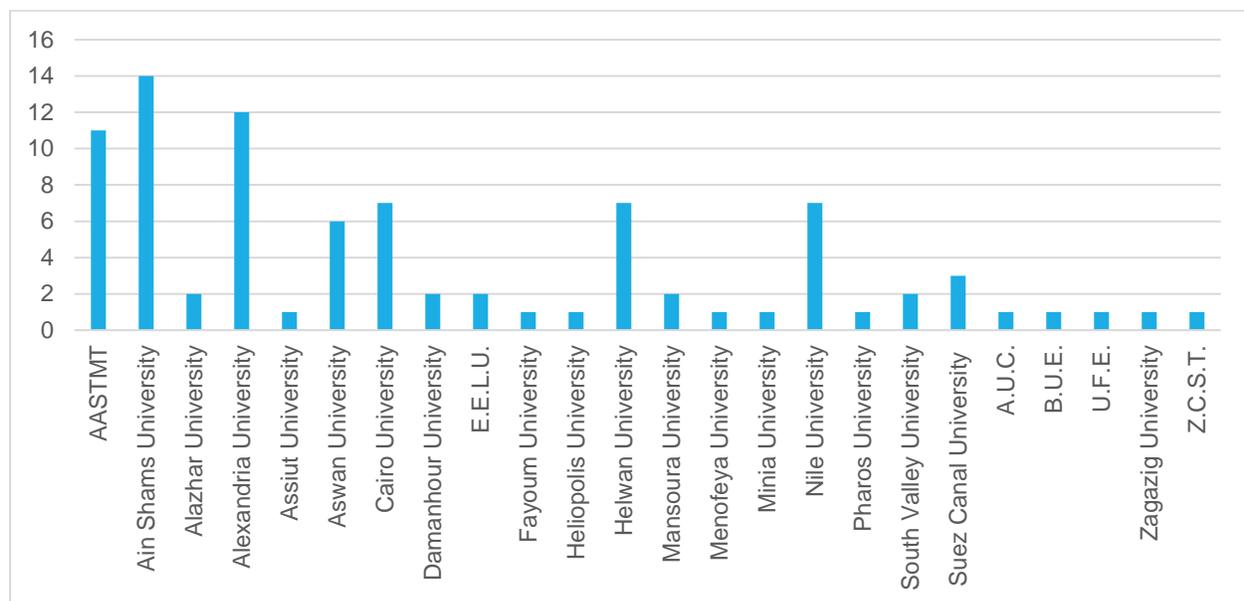


FIGURE 1: EGYPTIAN HEIS PARTICIPATIONS 2015-2017

The graph below shows the participation of various types of institutions in the 2015-2017 generations of Capacity Building in Higher Education Projects:

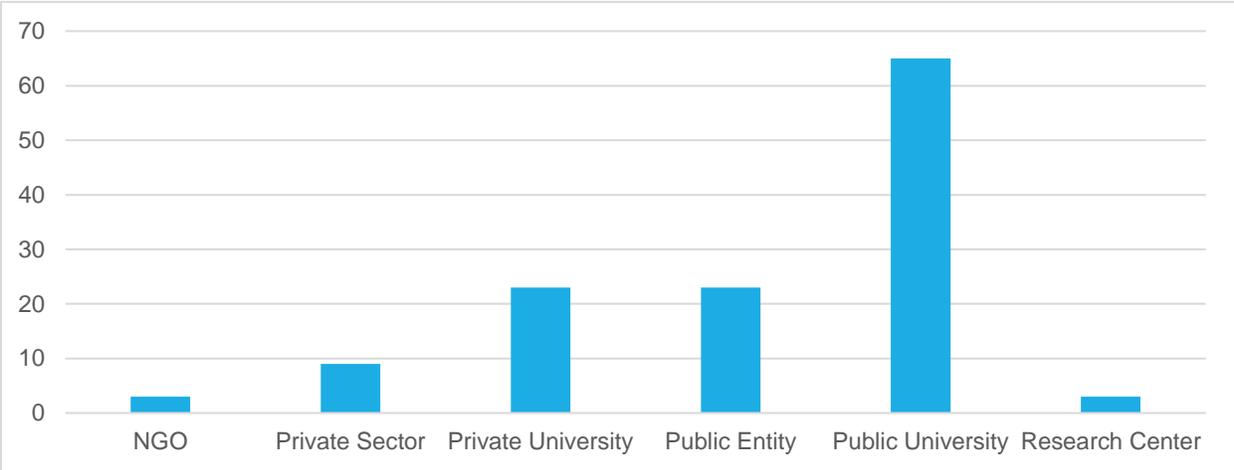


FIGURE 2: TYPES OF PARTICIPATING INSTITUTIONS 2015-2017 CBHE PROJECTS

The graph below shows the participation of countries in the 2015-2017 generations of Capacity Building in Higher Education Projects:

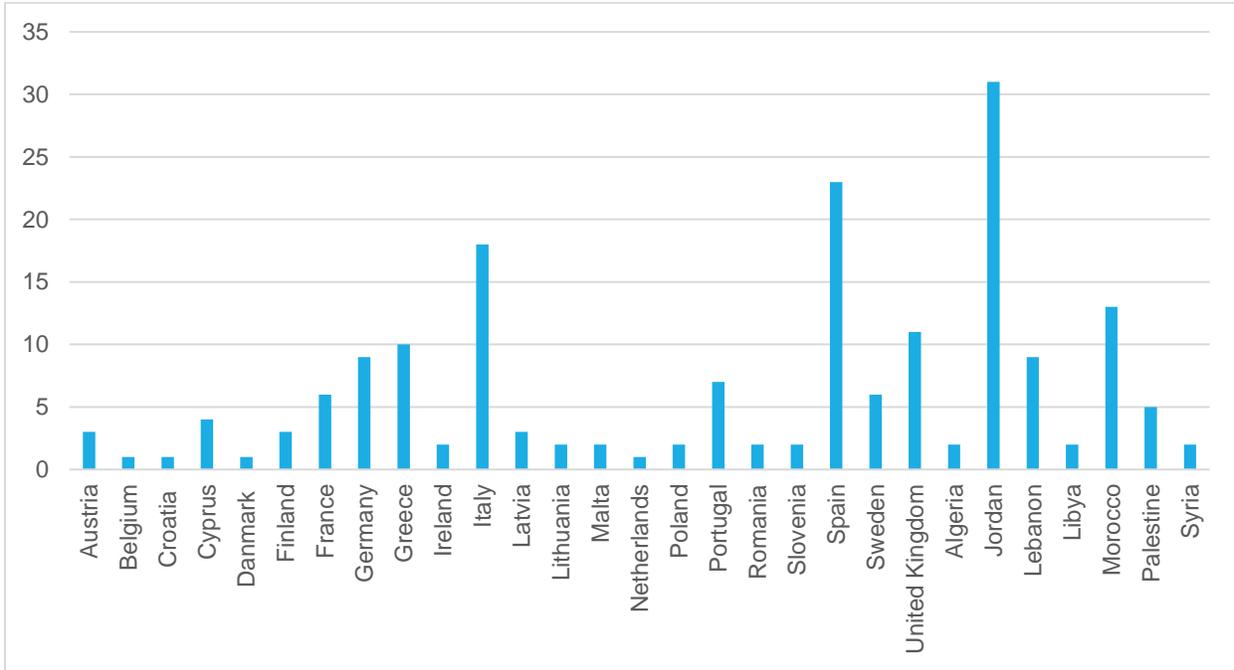


FIGURE 3: PARTICIPATION OF COUNTRIES IN 2015-2017 CBHE PROJECTS

# Reporting on 2015-2017 CBHE Projects Impact

## Categories of Impact on Higher Education

The 26 projects selected for funding during 2015-2017 are categorized according to the main impact of their actions to:

- Curriculum Development
- Entrepreneurship & Employability
- Inclusion and Student Empowerment
- Modernisation of Governance and Management of HEIs
- Teaching and Learning: E-learning, Lifelong Learning

The graph below shows the no. of projects per impact category

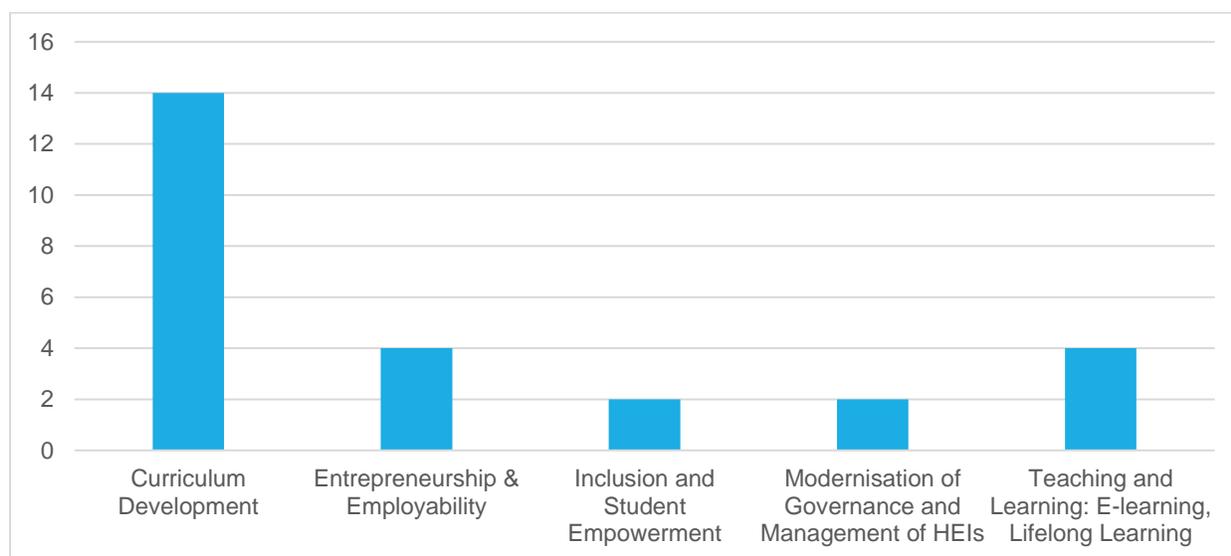


FIGURE 4: NO. OF PROJECTS PER IMPACT CATEGORY

More details on each impact category will follow in the next sections.

### Managerial/Financial Sustainability

Out of the 26 Projects under study, 21 Projects responded to the survey. Only one project indicated managerial and/or financial difficulties that might hinder the project consortium from sustaining the project achievements/results after funding period that already ended. Majority of the respondents were the projects contact persons as well as the working teams at partner universities.

### Impact on Individuals

Projects reported impact on individuals categorized according to their study level, the higher impact falls on the Master of Science Level while the least falls on the individuals from industry without any impact on Philosophy Doctorate Level. The “Other” category was mixed between undergraduate students and basic education schoolteachers.

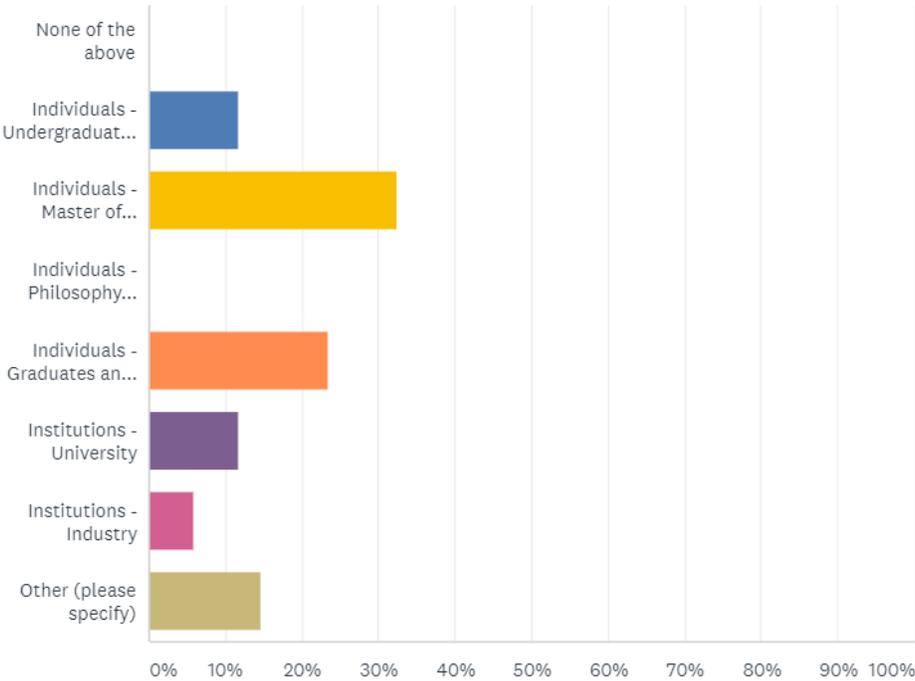


FIGURE 5: IMPACT ON INDIVIDUALS ACCORDING TO STUDY LEVEL

## Types of Impact

Since the Erasmus+ Program is designed for higher education development, one can expect that the impact might be restricted to academic level, to assess this assumption, projects were asked to classify the type of impact of their project results to include:

- Academic
- Economic
- Social
- Environmental
- Other (to be specified by the survey respondents)

While most of the impact lied in the “Academic” category, it was found that the projects’ impact extended to all other types while the “other” category was mixed between (for the same project):

- Academic and Social
- Academic, Environmental and Social
- Professional Development and Social

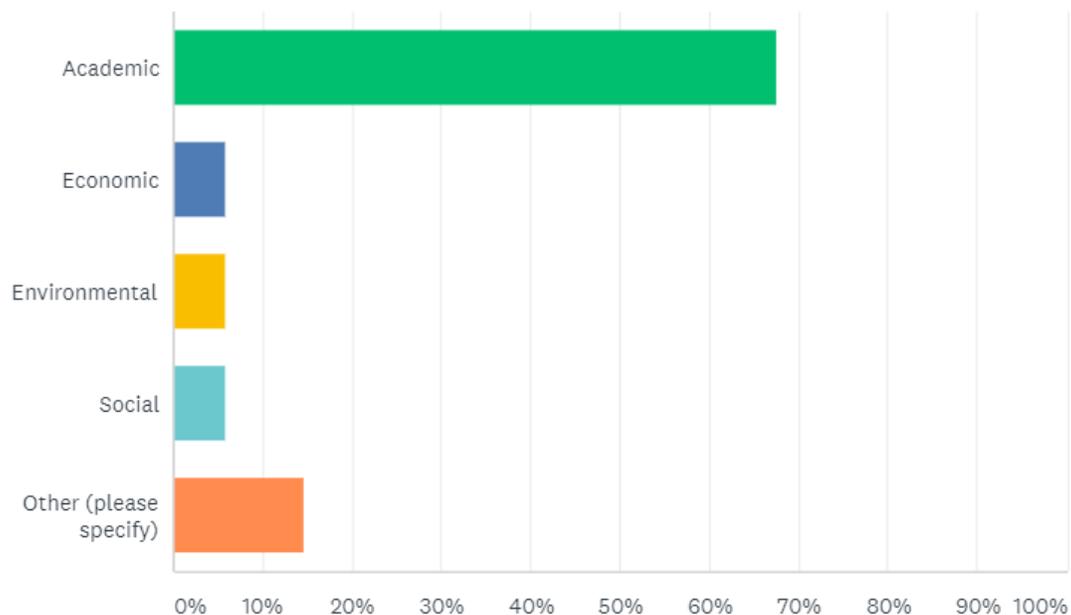


FIGURE 6: TYPE OF IMPACT

### Partnership with EU

All projects that responded to the survey reported positively on the necessity of partnership with European universities. Respondents chose EU Partners based on their capacity and expressed how helpful the knowledge transfer was in making their projects a success. Respondents indicated more detailed information on the sincere efforts made by the EU Partners in training, selection of equipment,...etc. In addition, respondents indicated the vast experience of EU universities in international cooperation and expressed how they benefited from working in an international environment with highly capable partners.

More sustainable relationships were established in certain universities and resulted in bilateral cooperation during and after the projects lifetime. Projects consortia were able to have projects together again in following years, either in Erasmus+ or other projects/programs. Continuation of partnership indicates a positive impact of implementing Erasmus+ in partnership between Egyptian and European Higher Education Institutions to be extended for further cooperation. In some specific domains, partnership with EU had a major impact in making a pivotal change in the capacity of individuals and institutions tackling a national priority (traffic and renewable energy).

# Impact on Curriculum Development

Projects in this impact category targeted various domains, the graph below shows the distribution of projects per field of study:

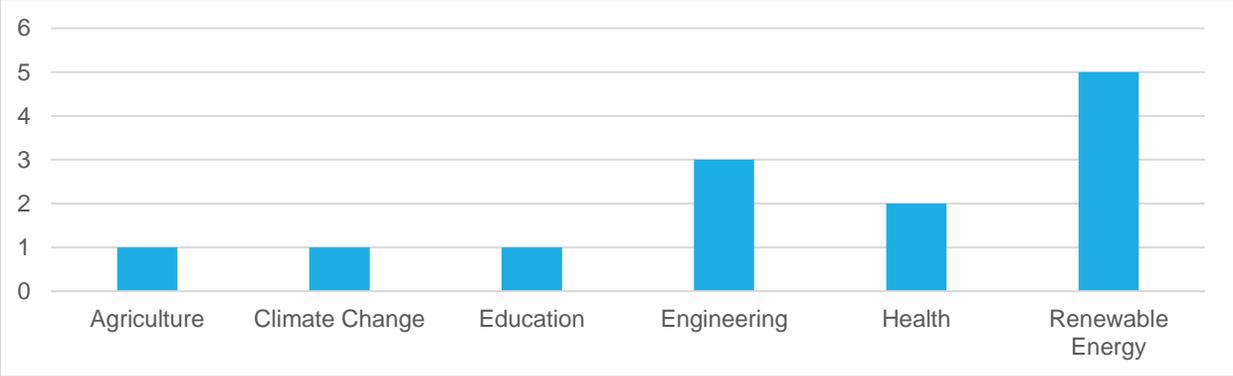


FIGURE 7: DISTRIBUTION OF DOMAINS OF CURRICULUM DEVELOPMENT PROJECTS

The 14 projects aiming at Curriculum Development represent +50% of the projects concerned by the study. 12 Projects responded to the survey and reported their achievements and impact. The study showed that 10 Projects do not face any managerial or financial difficulties in sustaining the projects achievements/results after the end of funding period.

According to the projects that responded and projects’ websites visits, the table below summarizes the impact of projects classified by their domains:

Domain	Developed Curriculum	Further Impact	Teaching/Training
Agriculture	Master of Science Program	Establishment of 1 Center of Excellence and 1 New Faculty	18 Students

<b>Domain</b>	<b>Developed Curriculum</b>	<b>Further Impact</b>	<b>Teaching/Training</b>
Climate Change	Master of Science Program		+70 Students
Education	International Diploma for School Teachers	Accreditation and reform of bylaws	
Engineering	1 Professional Diploma 1 Master of Science of Programs 1 Master of Arts Program	Building Capacity needed to address national needs in Traffic and support tourism industry	18 Students
Health	1 Master of Science Program 1 International Diploma 3 Professional Certificate		
Renewable Energy	3 Master of Science Programs and Training Modules	Agreements with Ministry of Electricity and other partnerships between South MED Countries	300 Teaching Staff 270 Undergraduate Students 200 Technical Staff 12 International Students

TABLE 1: SUMMARY OF CURRICULUM DEVELOPMENT IMPACT PER DOMAIN

## Impact on Entrepreneurship & Employability

The 4 projects (BEMT, INSTART, INNOLEA, MEDSOL) <sup>2</sup> aiming at Entrepreneurship & Employability. The study showed that all Projects do not face any managerial or financial difficulties in sustaining the projects achievements/results after the end of funding period.

2 Projects targeted specific areas of under employment:

- Solar Energy

The project established specialized labs to train B.Sc., M.Sc. students to offer proper skills for graduates in the field of Solar Energy. 112 students mobilized between partner universities took place for practical training in various sites. 16 Agreements were made between partner universities and other local private sector to ensure sustainability of actions and exploitation of results.

- Leather Industry

Establishment of 2 fully operational Leather Centers within the two Egyptian Partner Universities, development of services offered to industrial or other clients and of a sustainable business model for each center. A Memorandum of Understanding has been signed between Arab Academy for Science, Technology and Maritime Transport and the Egyptian Ministry of Trade and Transport to collaborate in R&D, training, testing. More such actions between the Centers and other relevant Leather and Creative Industry hubs, institutes and associations are planned for the near future.

The projects used the same approach of linking Academia and Industry together and filling the gap between the skills needed in labor market and current skills of workers.

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<sup>2</sup> Please refer to the Annex for projects' summaries

Another project that targeted engineering graduates where technical modules were linked with business and entrepreneurial modules that included:

- Business essentials
- Introduction to Management
- Finance for non-financials
- Marketing for non-marketeers

The project created a program for young engineering graduates to provide them with tools for new entrepreneurs whether technically or financially with procedures and legalities of founding a new startup as well as the funding opportunities and potential business incubators.

The other project worked on a horizontal scale by linking Universities, Businesses and society together by development of Transversal Accelerator Program which included the training of trainers as well as Training capsules held at each individual institution. Creation and/or restructuring of the Knowledge transfer offices and the Universities based on their specific needs and strategies.

## Impact on Inclusion and Student Empowerment

Only two projects (PACES, SP-EDU)<sup>3</sup> that fall under this impact category. A project aimed at developing a master Program for schoolteachers but its impact falls on children with special-needs in an inclusion program and who are equipped with the appropriate knowledge and tools to integrate this category of children with the main stream and make sure they are competent to play a role in the national growth. The Master Program is split in foundational part, followed by 3 specialization tracks

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<sup>3</sup> Please refer to the Annex for projects' summaries

targeting 3 disabilities (autism, learning and intellectual disabilities). This project will have a major positive impact upon the graduation of teachers who will be able to teach for special needs children with the help of the specially developed hardware and software teaching kits developed by the project.

The other project established a special accessibility center for students with special needs and learning disabilities. The center established by the project at partner universities offers training to students with disabilities with other students altogether in same class, also offers training to university staff members on how to deal with various types of disabilities. The center helps converting content to a digital format suitable for deaf and blind students as well as training special needs students on how to use computer with the aid of mobile applications. The project showed the opportunity on how to deal with people with disabilities, triggered a cultural transformation inside partner universities and paved for new relations with public authorities.

## Impact on Teaching and Learning: E-learning, Lifelong Learning

Under this category, 2 projects (SUP4CL, VET-ENG)<sup>4</sup> reported on their impact. A project that targeted teaching at basic education caused a conceptual reform in creating peer community of learners by sharing principles and values, building trusting relationships, developing collaboration and enhancing willingness in participating in PCLs. PCL team members considered Learning as a Social Process. It also helped raising awareness of School-university Partnership through Blurring of

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<sup>4</sup> Please refer to the Annex for projects' summaries

boundaries between higher education and k-12 personnel, Renewed sense of professional identity on both the university and school levels. Through this project, more than 100 PCLs created, 43 Professional Development Schools and quality assurance units strengthened, 3 Technology labs, 100 mentors fully coached, 10 research pieces produced by teachers, learning materials in the form of 36 lesson plans, 6 case studies with 17 research tools.

Another project targeted linking vocational education and engineering schools together through creating a shared learning environment, the project created a hub to receive vocational schools students for summer activities to participate in ongoing faculty of engineering students projects. This blended environment created a culture of respect between students (vocational and higher education). Promoted interest of vocational school graduates to participate in entrepreneurship track to establish their own startups. The capacity of the participating EG universities has been built, not only through the project implementation and engineering students' engagement with vocational students, but also contributed to building lab capacity to implement further rounds of the joint projects. Private sector is considering this hub as a role model to develop their own workers and engineers by replicating the methodology of this shared learning environment by one of the famous manufacturers of Cars Industry in Egypt. A MOU was made with a local initiative supported by the Central Bank of Egypt to spread and support entrepreneurial activities throughout Egypt and encourage school and university students to pursue their dreams developing new products and projects). Such agreement created a channel to support product development lifecycle from prototype to final product.

## Recommendations

The Erasmus+ Program as a continuation of the TEMPUS Program has contributed positively to the Egyptian Higher Education System in various aspects over the last 20 years. Implementation of EU-funded Programs for Higher Education introduced new concepts in Egyptian Universities and helped promoting the idea of international partnership management. These projects helped building and developing capacity in every single higher education institution in Egypt in the form of skills developed, infrastructure, exchange mobilities.

Upon studying the impact of Erasmus+ Capacity Building in Higher Education Projects in Egypt 2015-2017, a positive impact was made in the area of curriculum development in various fields, however; more curriculum development projects are still needed in the Humanities field (e.g., Arts, Commerce,...etc.) as most of the projects were directed to Renewable Energy and Engineering. Renewable Energy is a national need and pivotal point in Egypt Vision 2030, more projects on Entrepreneurship and Employability is needed in this field to accelerate the transformation to other renewable energy sources by the country.

The following areas are to be encouraged by projects to tackle:

- Student Empowerment and Inclusion (including Special Needs)
- Vocational Education link with Higher Education and Employability
- Governance Reform, training of non-academic university staff especially in the field of internationalization.
- E-learning
- Curriculum Development projects in the Humanities fields and linkage with Jean Monnet Program under Erasmus+, the main hurdle to achieve this is the language barrier as most of these fields of study are in Arabic.

# Annex

## Projects Summaries

**Year:** 2015

### **Project Title**

DESIRE: Development of higher Education teaching modules on the Socio-economic Impacts of the Renewable Energy implementation

**Project Action:** Curriculum Development

**Subject Area:** Engineering

**Budget:** €985,055.00

### **Project Summary**

Better understanding of the socio-economic impacts of implementing renewable energy and energy efficiency (REEE) technologies enables faster and more sustainable development of the REEE market. However, this knowledge field is underrepresented in the existing technically overwhelmed teaching curricula at universities and hence, is considered a deficit that should be reduced. By doing this, a proper preparation of qualified working force needed to sustain the development of the REEE market will be ensured. The importance of this project comes from tackling this problem by integrating the socio-economic dimension in REEE teaching programmes offered at HEIs in beneficiary countries. In this context, this project aims at developing and implementing interdisciplinary teaching modules and training courses on the socio-economic impacts of REEE on university teaching level. While the teaching materials target graduate and post-graduate students, the training courses are designed to train the teachers involved in the process. The teaching modules will be prepared by the project partners in close cooperation with associated partners from the society, academia, public and private sectors. The teaching modules cover the following aspects: - Analysis of macro- and micro-economic impacts of REEE projects - Analysis of social impacts of REEE projects - Analysis of ecological impacts of REEE projects - RE project management -

International and regional REEE markets - Sustainable development of REEE market  
In the implementation phase, the modules will be incorporated in existing curricula at partner universities and thereafter at associated universities. In a following step, these modules will be disseminated through targeted e-learning and training sessions. The expected impact of this project is mainly making the teaching of REEE at participating universities more comprehensive by covering the socio-economic dimension. This shall enhance the students' knowledge level. This project will offer an e-learning platform to promote the professional and academic development of teaching staff and students in the renewable energy field. Furthermore, the teaching and training modules prepared within the framework of the project are based on inputs from practical experiences made by the implementation of REEE projects. This shall promote taking up of practical entrepreneurial experience in education and training.

### **Applicant Higher Education Institution**

German Jordanian University, Jordan

### **Online Information Page**

<https://gjudesire.wixsite.com/desire/project>

**Year:** 2015

**Project Title**

OPENMED: A bottom-up approach for opening up education in South-Mediterranean countries

**Project Action:** Governance Reform

**Subject Area:** Learning and teaching tools and ICT-based practices

**Budget:** €871,229.00

**Project Summary**

The project explores the adoption of strategies and channels that embrace the principles of openness and reusability within the context of South-Mediterranean HEIs. The project intends to foster the adoption and pilot of open educational practices (OEP), and open educational resources (OER) in South-Mediterranean countries as a bottom-up approach to support the modernisation, accessibility and internationalization of HEIs. The initiative also opens the possibility to provide free educational resources for self-learners, in terms of informal and lifelong learning. OpenMED intends to facilitate the access for everyone to the university contents, thus overcoming the existing disparities in the South-mediterranean region, with the purpose of supporting a more balanced and equitable socio-economic development. Effects of the quality of contents and on the creation of long-lasting peer-based networks is anticipated as a long term result of the project.

**Applicant Higher Education Institution**

UNIMED Unione Delle Universita Del Meditteraneo Associazione, Italy

**Online Information Page**

<https://openmedproject.eu/>

**Year:** 2015

**Project Title**

SEMSEM: Smart Control Systems for Energy Management: New Master Degree

**Project Action:** Curriculum Development

**Subject Area:** Engineering

**Budget:** €981,618.00

**Project Summary**

The Middle East countries are going through a period of change where governments are forced to address the need for greater access to economic opportunity. With a challenging economic environment and a growing social demand, governments believe that subsidy reform especially in energy and food might help reconcile social protection and secure fiscal positions. With almost \$17 billion spending every year in Egypt and \$2.3 billion spending every year in Jordan. Creating a smart energy environmental project will positively affect the consumption sector through monitoring consumers' habits for energy saving purposes. This project seeks to build a new consortium of academic partners in Egypt, Jordan and Europe, whose aim is providing the market with competent young professionals ready to manage and control smart systems. The consortium should also support young professionals, and developed industries with the required training and awareness for energy saving purposes. A professional new master's degree in Smart Control Systems for Energy Management Engineering is to be established. This master will develop a mechanical and electrical engineers in the field of Quality Energy Management and Saving. Also, the ability to establish such master program on time will fulfill the job market requirements. This project includes the Bologna system in Egyptian and Jordanian Universities.

The new Masters program will be designed to follow the Bologna system's instruction, which will encourage student exchange between the consortium members. Finally, this project bridges the knowledge triangle, education-innovation-research between industry and academia. Therefore, a technology

transfer center is intended to established for targeting EG/JOR Universities, industrial and governmental entities.

**Applicant Higher Education Institution**

Staffordshire University, United Kingdom

**Online Information Page**

<http://sem-sem.aast.edu/>

**Year:** 2015

## **Project Title**

MENA-SAFE: Master Curriculum, Capacity Building and Network Development in Traffic Safety in Egypt, Jordan and Lebanon

**Project Action:** Curriculum Development

**Subject Area:** Engineering

**Budget:** €892,525.00

## **Project Summary**

Road traffic accidents are a growing health, social and economic problem in the partner countries Egypt, Jordan and Lebanon. Whereas EU countries, steadily and systematically reduced the numbers and severity of road accidents last decades, by implementing modern solutions and applications, the problems continue to grow in EG-JO-LB. Much of this existing knowledge, practices and know-how in EU can be transferred and implemented in partner countries. The overall aim of the project is to design, develop, adapt and implement a new MS.c curriculum in the field of Road Traffic Safety within joint efforts between EU-EG-JO-LB partner Universities according to Bologna requirements and EU traffic safety standards and best practices. The developed curriculum will be based on a market analysis and job demands for graduate engineers in EG-JO-LB. The curriculum will be tailored to the problems, needs and traffic characteristics in EG-JO-LB.

This curriculum will be also supported with ICT supported platforms e.g. OpenCourseWare for sharing teaching and learning material, Webinar online meetings, etc.

The project will be structured into 4 phases:

1. Current curriculum analysis (from Month 1 to Month 6).
2. Development of the new curriculum and innovative elements (from M7 to M24).
3. Realisation of the new curriculum (from M19 to M24).
4. Implementation and evaluation (from M25 to M36).

This curriculum, supported material and gained skills will contribute positively on economy and society development in partner country by making road traffic in MENA region safer and sustainable.

**Applicant Higher Education Institution**

Gdansk University of Technology, Poland

**Online Information Page**

[https://www.up2europe.eu/european/projects/master-curriculum-capacity-building-and-network-development-in-traffic-safety-in-egypt-jordan-and-lebanon\\_83512.html](https://www.up2europe.eu/european/projects/master-curriculum-capacity-building-and-network-development-in-traffic-safety-in-egypt-jordan-and-lebanon_83512.html)

**Year:** 2015

**Project Title**

eSTEM: International Diploma for School Teachers in STEM Education

**Project Action:** Curriculum Development

**Subject Area:** Teacher Training and Education Science

**Budget:** €906,318.00

**Project Summary**

This project aims at creating dual (university-school) integrated diploma for developing a new generation of STEM teachers in Egypt, who are capable to provide adequate and innovative teaching in Science, Technology, Math and Engineering-based subjects, embracing STEM philosophy and are capable to bridge the gap between current school education methodologies and those needed for future pre-university school evolution. Adequate school education is the foundation for any human capacity development in Egypt, which has suffered continual degradation during last 3 decades in both quality and quantity of students pursuing STEM-based careers. This has directly contributed to ranking Egypt in the tail of the list of innovative-driven countries affecting both social and economic prosperity and effective integration in the global system. This shall be realized by an EG and EU accredited multi-track diploma lasting for 9 months, 6 of which introduced at participating universities covering pedagogical, psychological, technology-based education and engineering modules followed by 3 selective knowledge-specific tracks. The remaining 3 months are covered via apprenticeship integration in operating schools. The diploma program is equipped with a STEM resource center capable of feeding STEM schoolteachers with ever-developing ICT- and hardware resources converting abstract math/science education into engineering and technology-based innovative applications.

The targets of this program are the employed and future math/science primary/secondary schoolteachers. The proposed diploma shall be developed in cooperation between universities, public authorities and NGOs. The plan is to start

running this diploma during the third year of the project to account for fine adjustments. A gap analysis will be developed and followed by comprehensive course development. A wide community impact is expected as outlined by various stakeholders from the higher and pre-university education communities.

### **Applicant Higher Education Institution**

Ain Shams University, Egypt

### **Online Information Page**

<https://estem.edu.eg/>

**Year:** 2015

**Project Title**

HEAL+: Master in Health Informatics

**Project Action:** Curriculum Development

**Subject Area:** Health

**Budget:** €976,987.00

**Project Summary**

This project proposes the development of an MSc degree program that covers the core and new trends in Health Informatics (HI) and incorporate expertise at EU institutions and six MENA universities. The program will use modern learning and research approaches to support the program curriculum on new HI trends. Improving the efficiency of the care process, and enhancing the quality and outcome of medical treatment are underlying themes of the master program in HI. The biomedical informatics field was defined as spanning the subfields of bioinformatics (molecular and cellular processes); imaging informatics (tissues and organ systems); clinical informatics (individuals and patients) and public health informatics (populations and society). The last two subfields, clinical informatics and public health informatics together comprise health informatics, and are at the heart of our envisioned program. Our proposed curriculum will focus on:

1. Clinical tasks – in particular, medical decision-making pertaining to prevention, diagnosis, treatment and follow up and the required support from information systems – as well as patient-related issues;
2. Healthcare organisation and processes - in particular, the use of information technology in structuring and organising patient-care processes (care-chain logistics).

The program will provide preliminaries; foundations (such as quality of care based on clinical registries; terminology systems; and Evaluation and Usability); and emerging technologies (such as Decision Support Systems; eHealth; and Big data

analytics). The program objectives are to meet the growing demand for skills pertaining to solving information-related problems and to tackle the problem of lack of job readiness of (IT) graduates entering the healthcare sector. Bringing together the various institutions will facilitate arriving at the definition of the precise program goals and the learning outcomes.

### **Applicant Higher Education Institution**

Alcala University, Spain

### **Online Information Page**

<http://www.just.edu.jo/FacultiesandDepartments/it/Pages/Erasmus-project.aspx>

**Year:** 2015

## **Project Title**

ILHAM-EC: Interuniversity Learning in Higher Education on Advanced land Management - Egyptian Country

**Project Action:** Curriculum Development

**Subject Area:** Agriculture, Forestry and Fishery

**Budget:** €918,436.00

## **Project Summary**

Productive land resources in Egypt are under multiple natural and human pressure that are leading to soil degradation and desertification. Agriculture land conservation is a high priority for Egypt. Several efforts have been undertaken by the government authorities of Egypt to reduce desertification processes and preserve land productivity but they have faced a wide range of obstacles, mostly related to :

1. Improper and irrational land use policy and planning;
2. Lack of scientific knowledge and technical expertise to cope with complex problems;
3. Absence of national, regional and international networking and an ineffective mechanisms for technology transfer, exchange of experience and cooperation at different levels.

ILHAMEC project is intended to develop a postgraduate Master on Sustainable Land Management (SLM) within the curricula of four Egyptian universities supported by three EU ones adopting the strategy to first train teachers. During its life time, the consortium envisages to reach many results such as: studies, surveys, access to open digital contents, web learning tools, teachers training materials, an educational web-based simulation game on SLM, educational innovative video-lessons, new Master curricula, workshops and seminars. All the resources will be accessed easily, reused and adapted by the project target groups (mainly teachers, students and HEIs) at local, regional, national and European levels. Sustainability will be ensured by identifying individuals and groups or institutions that will take

over its animation and moderation. ILHAMEC will have a strong impact within the same partners of the Consortium through the process of sharing knowledge, challenges and solutions. Additional stakeholders will benefit from the project as the main outcome is to spread knowledge and awareness on SLM issues and on the importance to improve quality in HEIs for increasing technical and analytic skills of young students.

### **Applicant Higher Education Institution**

University of Sassari, Italy

### **Online Information Page**

<https://www.ilham-ec.eu/>

**Year:** 2015

## **Project Title**

ENEPLAN: Developing skills in the field of integrated energy planning in Mediterranean Landscapes

**Project Action:** Higher Education and Society

**Subject Area:** Learning and teaching tools and ICT-based practices

**Budget:** €997,322.00

## **Project Summary**

The ENEPLAN project was conceived to address the lack of interdisciplinary approaches in higher education on energy planning and RES development in Mediterranean areas, by increasing the capacities of future professionals through innovative ICT-based educational approaches, able to integrate different disciplines (spatial planning, environment, engineering, landscape) and foster collaboration with research and business activities in the RES sector, thus keeping up with its rapid technological innovation. Addressing this issue is crucial to ensure sustainability in energy planning, and form more qualified, up to date, employable professionals, able to deal with innovative RES-based solutions and with the complexity of their socio-economic and environmental context. To attain this goal, ENEPLAN proposes an alternation of desk activities and workshops aimed at the collective production, development, testing and practical application of Open Educational Resources on energy planning, based on the tool of collaborative Concept maps. A Concept map is an ICT tool to represent relationships among concepts, and, as OER, it can be “customized” according to users’ needs, resulting in a versatile instrument for educational purposes and professional upgrade, as well as in a stimulus for developing applied research.

Through this tool, ENEPLAN aims to:

1. Improve the quality and modernisation of HE curricula and teaching and research activities in the field of integrated energy planning;
2. Increase the labour market relevance of learning provisions and qualifications, and the employability of graduates;

3. Strengthen the relations between HEI and the wider socio-economic environment, by involving academics, students, planners and enterprises in the creation of common tools and networks.

OERs, uploaded on the ENEPLAN e-learning platform, will be available in English and Arabic, to be exploitable by a wide number of users in Europe and in the Arabic-speaking Mediterranean countries.

### **Applicant Higher Education Institution**

Università degli studi Roma Tre, Italy

### **Online Information Page**

<https://www.aub.edu.lb/fafs/Idem/Pages/ENEPLAN.aspx>

**Year:** 2015

### **Project Title**

ITCT: IT-Based international diploma and professional certificates in clinical toxicology

**Project Action:** Curriculum Development

**Subject Area:** Health

**Budget:** €917,716.00

### **Project Summary**

An IT-based, multi-disciplinary diploma accompanied with 4 professional certificate programs in clinical toxicology targeting both pharmacists, physicians (and nurses in the certificate programs) in a cross-cutting education discipline is at hand with a goal to introduce a new line of qualified professionals capable to manage, attend and deal with increasing threat of natural and synthetic poisons and poison agents in various disciplines such as agricultural, industrial, petrochemical, pharmaceutical as well as domestic and home usage. In spite of the growing use of chemicals in various industrial, domestic and home applications, very poor awareness about the toxic risks of chemicals is evident in a country with over 90 Million inhabitants and a frightening increasing rate of chemical use and abuse. This shall be realized by an EG and EU accredited one-year 60 ECTS multitrack diploma, 45 ECTS of which are covering fundamental modules serving both pharmacists and physicians, while the remaining 15 ECTS are in two separate pharmacists/physicians specialization tracks. The one-month 5 ECTS professional certificates are designed to serve particular areas with extensive practical and hands-on skills content.

Both the diploma and the certificate programs incorporate intensive implementation of e-laboratories covering most of the lab work that would require complicated simulations or tests on life samples to be the 1st in that domain in Egypt integrating ICT and e-labs/e-learning technologies as a main ingredient in content and delivery means. The targets of this program are professional pharmacists and physicians in hospitals, in poison control centers, pharmaceutical companies or employed in health departments in industrial enterprises. The

proposed diploma shall be developed in cooperation between universities, public authorities and NGOs. A wide community impact is expected as outlined by various stakeholders from the academia and health-related authorities.

**Applicant Higher Education Institution**

Cairo University, Egypt

**Online Information Page**

<https://www.itct.edu.eg/>

**Year:** 2015

## **Project Title**

BEMT: Integrating Blended Entrepreneurial and Manufacturing Technology Competency into Socioeconomic Development in Egypt

**Project Action:** Higher Education and Society

**Subject Area:** Lifelong learning, continuing education

**Budget:** €916,166.00

## **Project Summary**

An interdisciplinary manufacturing/business entrepreneurship continuous learning system is introduced aiming at developing a new line of small-business owners with engineering background grasping in-depth expertise in manufacturing technology with adequate entrepreneurship skills capable of establishing a sustainable small manufacturing business within micro economy spectrum. Although, manufacturing technology industries are deep-rooted in Egypt, recent statistics indicate a significant retreat in supply-to-demand ratio revealing a completely abandoned industry domain that is eligible and feasible to flourish in different business size models, particularly in micro/small domains, which are most suitable in heavily populated countries with economic hierarchy similar to the one in Egypt. Hence, a post-university continuous learning program is developed targeting graduates with mechanical/industrial engineering background, which blends manufacturing technology expertise and business- and technology-management skills in two fundamental learning modules each spanning over 96 contact hours, followed by 6 technology-specific tracks, 96 hours each, with extensive hands-on and practical training resulting in graduates mastering both technology and business development competencies. The targeted technologies map the actual industry needs and range from conventional to advanced computer-controlled types.

A comprehensive web-based training complements the machine-shop practice to deepen the technology expertise fulfilling today's demands in quality and cost competitiveness. The learning system finally ends with participants developing

their own business plan and are engaged with public authorities, feeding-to industries and funding entities to process the start-up they were trained and prepared for, thus completing the continuous learning process cycle with an expected wide impact on the industry and the community in Egypt at large both from social and economic perspectives.

**Applicant Higher Education Institution**

University of Oviedo, Spain

**Online Information Page**

<https://bemt.edu.eg/>

**Year:** 2016

**Project Title**

SUP4PCL: School and University Partnership for Peer Communities of Learners

**Project Action:** Higher Education and Society

**Subject Area:** Lifelong learning, continuing education

**Budget:** €748,457.00

**Project Summary**

Studies on teacher education have underlined the importance of Continuing Professional Development (CPD) that is school based as the proven preferred modality of enhancing teacher education. In the Egyptian context most studies have illustrated that both faculties of education and the Ministry of Education have for the longest of time adhered to very traditional methods of teacher training, which not only wasted resources but also did not lead to any learning or improvement of performance all of which has deterred educational reform at both the higher educational levels as well as school levels. Teacher performance being the key factor for learning has been selected as the most strategic entry point to reform. The aim of this project is to empower Egyptian Faculties of Education to develop modern, innovative and effective models of Continuing Professional Development CPD that is school based and allows for the development of Professional Development PD schools that are sustainable and that will eventually be brought to a larger scale in the Egyptian and regional context. From experiences with international cooperation in particular with the EU it has become apparent that when Egyptian systems are exposed to innovative thinking overtime there tends to be a gradual shift particularly of culture with partnerships that are strong in imparting both clear and tacit knowledge through exchange, dialogue, joint activities and exposure. Change as we well know is incremental and often is the result of transfer through mentors hip as well as conscious reflection.

The most significant partnership for the success of this transformation is that between university and school whereby the former equips practitioners with the theory behind their practice.

## **Applicant Higher Education Institution**

The American University in Cairo, Egypt

## **Online Information Page**

<https://www.slideserve.com/edan/insideout>

**Year:** 2016

### **Project Title**

MEDSOL: Strengthening Capacities of South-Mediterranean Higher Education Institutions in the Field of Solar Energy by Enhancing Links among Applied Research, Business, and Education

**Project Action:** Higher Education and Society

**Subject Area:** Knowledge triangle, innovation

**Budget:** €1,667,245.00

### **Project Summary**

Due to the growing demand of energy in the South-Mediterranean region, a shift towards renewable energies and notably solar energy is being promoted by the governments and the energy industry. One of the main obstacles for this development is the lack of qualified staff. The Higher Education Institutions (HEIs) in the region have launched training programmes in the field, but two main aspects still need to be addressed: improving a multidisciplinary approach and links to businesses and applied research. Resources and international collaboration are needed in order to improve the quality of the training programmes and to ensure that they are linked to the latest research findings and requirements of the industry. In the larger context of modernisation, accessibility and internationalization of HEI systems in the Partner Countries, the MEDSOL project aims at enhancing the capacity of HEIs in Morocco and Egypt to deliver masterlevel programmes in solar energy. More specifically, it seeks to improve the quality of the currently existing training programmes, teaching methods and laboratory equipment for practice-based research. The work is conducted through close cooperation, sharing know-how and good practices between Programme and Partner Country HEIs as well as partners from business and applied research sectors.

The proposed key activities are:

1. Improving existing curricula at the partnering HEIs in Morocco and Egypt;
2. Capacity building of HEI staff in Morocco and Egypt via a mobility scheme;

3. Updating training facilities at HEIs in Morocco and Egypt;
4. Providing opportunities for mobility for students in form of study/traineeship periods at the partnering institutions in the EU, Morocco and Egypt;
5. Disseminating project results and best practices in form of workshops and publications;
6. Promoting continued long-term collaboration, e.g. developing Double Master
7. Degrees between the partners.

### **Applicant Higher Education Institution**

Universite De Strasbourg, France

### **Online Information Page**

[http://www.aast.edu/en/scientific-research/contenttemp.php?page\\_id=47300102](http://www.aast.edu/en/scientific-research/contenttemp.php?page_id=47300102)

**Year:** 2016

## **Project Title**

CCSAFS: Developing a MSc. Programme in Climate Change, Sustainable Agriculture and Food Security

**Project Action:** Curriculum Development

**Subject Area:** Agriculture, forestry and fishery

**Budget:** €919,842.00

## **Project Summary**

Climate projections for the Middle East and North African (MENA) region indicate warmer and drier conditions with increased frequency of natural disasters. Agriculture is one of the most vulnerable economic sectors to climate change, mainly due to the limited availability of water and land resources in the two target MENA countries (Egypt and Jordan). There is future risk of higher skills shortages in 'niche' areas related to the impact of climate change to agricultural sectors and food production. In particular, there is need for highly specialised scientists in the field of agriculture and food security who want to combine scientific and social or policy skills to better understand and make significant contributions to climate adaptation and mitigation in agriculture and food security. It is critical to integrate agricultural science with related subjects that impact on sustainability and food security such as geo-politics, legislation and regulation, consumer pressures, economics, agro-ecology and environmental stewardship, especially at the post-graduate level. An inter/multidisciplinary MSc programme in Climate Change, Agricultural Development and Food Security (CCSAFS) is urgently needed. CCSAFS is driven by the Bologna process and a multi-stakeholder approach advanced through a participatory or negotiated curriculum, innovative methodologies such as the 10Cs transversal skills in a problem-based learning environment enabled by ICTs, blended learning, SDGs and agro-food entrepreneurship in teaching, learning and outreach activities.

Graduates will be equipped with interdisciplinary knowledge and agro-food entrepreneurship and ethics to promote sustainable agricultural production, food

security and climate change adaptation. CCSAFS will help to overcome the threats to agriculture and food security in a changing climate, exploring new ways of helping vulnerable rural communities to combat hunger and adjust to local, regional and global changes in climate.

**Applicant Higher Education Institution**

University of Crete, Greece

**Online Information Page**

<https://www.hu.edu.gr/research/business-education/>

**Year:** 2016

**Project Title**

INSTART: Euro-African Network of excellence for entrepreneurship and innovation

**Project Action:** Higher Education and Society

**Subject Area:** University-enterprise cooperation, entrepreneurship and employability of graduates

**Budget:** €740,919.00

**Project Summary**

The Euro-African Network of Excellence for Innovation and Entrepreneurship - INSTART – aims at improving the knowledge triangle by promoting an effective Innovation culture in Higher Education, and starting up Innovative modes of association and interaction between Universities, Businesses and Society in order to enhance the socio-economic environment across the South Mediterranean Region (MED). The Consortium is composed of 4 Universities, and one Scientific and Technological Park from EU countries - Spain, Portugal, Italy and Poland- and 12 Universities from Algeria, Egypt, Libya, Morocco and Tunisia with support from social partners as Chambers of Commerce, Clusters, Networks and Associations from these MED countries. Making university's activities more visible and accessible to companies and other stakeholders is important to contribute to economic growth by combining their collective knowledge and skills. The INSTART project develops innovative mechanisms to promote University Excellence in Innovation and Entrepreneurship and to increase University-business cooperation through the Mediterranean. To catch up on knowledge production, INSTART will implement the training Transversal Accelerator Program with innovative learning tools for different targets groups (professors, technical, graduates, postgraduates), focuses on new skills in Innovation and Entrepreneurship having a transversal impact on interesting disciplines for the Region (as Agriculture, Economics, Education and Engineering). In order to improve the capacities, create and reinforce structures of Innovation at the MED Universities, the project will develop

a training Program including a visit period in Europe, and thus starting a best practice transfer Systems for long-term cooperation between MED-EU Universities. INSTART project is designed to encourage Mediterranean Higher Education Institutions to become a referent for innovation and entrepreneurship in the labour market and society as a whole.

### **Applicant Higher Education Institution**

Universidad de Las Palmas de Gran Canaria, Spain

### **Online Information Page**

[https://www.up2europe.eu/european/projects/euro-african-network-of-excellence-for-entrepreneurship-and-innovation\\_64387.html#:~:text=The%20Euro%2DAfrican%20Network%20of,and%20Society%20in%20order%20to](https://www.up2europe.eu/european/projects/euro-african-network-of-excellence-for-entrepreneurship-and-innovation_64387.html#:~:text=The%20Euro%2DAfrican%20Network%20of,and%20Society%20in%20order%20to)

**Year:** 2016

**Project Title**

EduMUST: Education and Capacity Building in Museum Studies

**Project Action:** Curriculum Development

**Subject Area:** Humanities

**Budget:** €979,356.00

**Project Summary**

It is evident that Egypt's material cultural heritage is one of the country's major characteristics, as well as a significant resource for the national income. A principal means by which Egyptian cultural heritage is presented to the public is through museums, which started developing in Egypt since the middle of the 19th century. Yet, museums in Egypt are facing a serious setback, which is affecting their cultural, social and economic roles; it is the need for specialised education and professional training in Museum Studies. Out of more than twenty universities in Egypt offering, for decades, undergraduate and postgraduate education in different aspects of archaeology, cultural heritage and the history of Art, only a handful are offering some individual courses in museum related topics. Accordingly, the great majority of those who working in museums in Egypt are not specialised in that field. This has resulted in the lack of innovative, attractive and informative displays in most Egyptian museums. Also the educational and social role of museums in Egypt is quite limited due to the paucity of dedicated public educational and outreach programs. Accordingly, this project aims to contribute significantly in capacity building in the field of museums in Egypt by developing a multi-level graduate education program in Museum Studies (Diploma & Master Degree) to be offered to students from different backgrounds. The proposed programs aim to provide a profound understanding of contemporary theory and practice in aspects of museum studies, and the role of museums in the wider context of cultural heritage. Hence it would provide the basis for a professional career in that field or a sound foundation for further research. The study of cultural heritage is multi-disciplinary by nature. Hence, the consortium, which includes specialists in archaeology,

engineering, museology and heritage management, collectively provides the expertise & skills required for the project fulfilment.

**Applicant Higher Education Institution**

Ain Shams University, Egypt

**Online Information Page**

<https://edumust.edu.eg/>

**Year:** 2016

**Project Title**

VET-ENG: Blended Vocational-Engineering-Industry Shared Learning Environment for Stream of Socially- and Technically-Competent Technicians and Engineers

**Project Action:** Curriculum Development

**Subject Area:** Engineering and engineering trades

**Budget:** €946,830.00

**Project Summary**

A shared learning environment for vocational and engineering students is developed, in which project-based learning methodology is implemented targeting both students' groups in final two years of their academic track. The developed education methodology is expected to yield a new line of industry human capital (engineers and technicians), who are technically and socially competent for professional and skilled teamwork at industry, where industry-inspired project-based learning is implemented in engineering and vocational curricula engaging both in integrated teams developing a mutual product. Although partners in industry development, a significant social segregation exists among engineering and vocational man power in industry in EG. This is accompanied with lack of practical expertise, true industry exposure and lack of appreciation of the role of each group. Since the academic development stage is most appropriate to shape students' perspective and understanding, academic courses during the last two years of engineering and vocational school are modified such that practical projects/ products are introduced to different student groups comprising members from engineering and vocational schools, which map the academic learning outcomes of the courses offered in both disciplines. This shall cover Mechanical, Manufacturing, Electrical and Mechatronics tracks.

A total of 28 projects mapping the ILOs for 28 Engineering and 29 vocational courses shall be designed for VET-ENG student teams to develop together at vocational-engineering schools and at industry premises. Personal skills, social and

work ethics courses shall be developed and offered to the VET-ENG teams to enhance their professional interactivity and respect. VET-ENG groups shall develop one project each, for each of the targeted 4 semesters, which map the ILOs for the practical content of the engineering and vocational courses in this semester, while building on competencies acquired during previous years.

### **Applicant Higher Education Institution**

University of Turku, Finland

### **Online Information Page**

<https://veteng.edu.eg/>

**Year:** 2016

### **Project Title**

SP-EDU: International E-based Diploma and Professional Certificates in Special Education and Inclusion

**Project Action:** Curriculum Development

**Subject Area:** Teacher training and education science

**Budget:** €957,870.00

### **Project Summary**

The project aims at creating disability-specific, EG/EU accredited two-diploma system for developing a new line of teachers, social and psychological specialists for special-needs education students, qualified with up-to-date knowledge and experience and with access to adequate ITC-based and smart hardware resources to be the fuel to schools with inclusion programs as well as private/NGO rehabilitation centers. The first fundamental-stage diploma (60 ECTS) is composed of general special education topics, followed by 3 disability-specific elective tracks (Learning Disability, Intellectual Disability and Autism). Once complete, students are eligible to join the second specialization diploma (60 ECTS) in one of these elective topics, which is designed in dual-education form comprising academic and inclusion school implementation. The academic program is supported by an innovative line of electronic and smart hardware resources, matching academic, disability level and type, to facilitate graduates in delivering the targeted competencies and skills. A virtual inclusion campus is also planned to host special-needs and regular students, parents and teachers in an interactive 3D stereoscopic shared learning environment equipped with social, pedagogical and academic virtual tools. The developed academic program is accompanied with 3 professional certificates (5 ECTS each) for practitioners for skills improvement in 3 imminent areas; ADHD, Behavioral Disorder and Inclusion systems.

The targets are the employed and future special needs teachers, social and psychological experts as well as regular school teachers accommodating special-needs children in class. The plan is to start running this diploma during the third

year of the project to account for fine adjustments. A gap analysis will be developed and followed by comprehensive course development. A wide community impact is expected as outlined by various stakeholders from the higher and preuniversity education communities.

### **Applicant Higher Education Institution**

University of Oviedo, Spain

### **Online Information Page**

<https://spedu.edu.eg/>

**Year:** 2016

**Project Title**

SGT-MAP: Smart Grid Technology - A Master Programme

**Project Action:** Curriculum Development

**Subject Area:** Engineering and engineering trades

**Budget:** €695,666.00

**Project Summary**

The three-year SGT-MAP aims at development of a master program in smart grid technology through the collaboration between a consortium consists of four Egyptian and three EU partners of different fields; Electrical power and control eng., IT eng., communication eng. All the consortium partners contribute in developing and reviewing program 24 courses. The self study report of the developed program will be prepared and submitted to the national accreditation board in Egypt and also it will be submitted by UNI-KLU to the national accreditation board in Austria. A workshop will be organized after developing the teaching materials in order to discuss the future of smart grid and its influence on the proposed program courses contents and review the matching between contents, objective and outcomes before implementation. Related smart grid laboratories are established at EG universities to support the developed courses. Four courses are selected as a professional training courses and the related self study report will be prepared and submitted to a training accreditation board. These courses will be implemented during the program duration. Each course and its related laboratory experiments will be delivered by EU and EG trainers. The courses will be followed by a questionnaire for assessment purposes and quality assurance, which helps in continuous improving of the courses implementation. Moreover, the EU trainer will evaluate the course delivery and transfer his experience to the EG trainer.

Another workshop on impact of smart grid will be held in Egypt during the 5th month of third year in order to discuss the smart grid technology impacts and the

feedback of the stakeholders' surveys. The project outcomes are presented at workshop which focuses on the impact of smart grid technology on community. Many information sessions will be organized in order to disseminate the project outcomes and the program activities. This will help in ensuring project sustainability.

**Applicant Higher Education Institution**

University of Strathclyde, United Kingdom

**Online Information Page**

<http://www.sgt-map.eu/>

**Year:** 2017

**Project Title**

WESET: Wind Engineering Skills in Egypt and Tunisia

**Project Action:** Curriculum Development

**Subject Area:** Energy and Natural Resources

**Budget:** €928,961.00

**Project Summary**

The reason of this project is to tackle the lack in South-Mediterranean countries of Engineers that are well trained in Wind Engineering “WE”. This lack of Engineers with multidisciplinary knowledge of Wind Technologies hinders the potential of Wind as a source of reliable, cost-effective and pollution-free source of energy in those countries: The key to development of WE companies in those countries is the capacity to acquire technically qualified manpower of international standard. This would certainly create job opportunities for graduates in Engineering, which is very relevant for the countries selected (Egypt and Tunisia). At the conclusion of the project on-line training materials would be produced in the two languages used for Engineering education in South-Mediterranean countries (English and French), that would be openly distributed and promoted to be used as part of existing Masters in Engineering subjects. In addition 10 academics of Egyptian and Tunisian Engineering Schools would be trained in Europe on real-life Wind Engineering aspects and the use of those on-line training materials for Master courses.

**Applicant Higher Education Institution**

University of Valladolid, Spain

**Online Information Page**

<https://www.weset-project.eu/>

**Year:** 2017

**Project Title**

HEBA: High Level Renewable and Energy Efficiency Master Courses

**Project Action:** Curriculum Development

**Subject Area:** Climate action, Science & Technology, Energy and Natural Resources, Regions and local development

**Budget:** €999,873.00

**Project Summary**

Energy Efficiency (EE) and increased used of Renewable Energies (RE) are the key elements to achieve the EU 2050 goals. The HEBA project aims to ensure that the universities in Egypt, Lebanon and Jordan can offer a high quality education compatible with European standards that meets the market needs of the emerging knowledge-based society by strengthening EE+RE teaching. The main objective of HEBA is to reform and improve existing master programs in EE+RE on single technologies and energy systems level in building and industrial sectors and improving/establishing Centers of EE+RE Technologies in the partner countries cooperating with each other. The centers will train postgraduate (PG) and undergraduate (UG) students on EE+RE methodologies and technologies for different sectors and will contribute to guidelines for best practice for the efficient use of energy and renewable energies in a joint collaboration between EU and partner universities. The former will transfer EU best practices, experiences and methodologies according to the Bologna process to support the development and diffusion of an innovative experience in technical higher education in the partner institutions supporting the capacity and knowledge building in EE+RE Technologies.

Outputs of HEBA in the partner universities will be:

1. Adapted curricula

2. At least 12 new or improves existing courses and lecture books/e-learning tools for PG and UG students on EE + RE
  3. Six 1-week train-the-trainers courses for the future lecturers (min. 70) of the participating EU universities
  4. 12 Master thesis of students from partner universities at participating EU universities
  5. Establish/improving laboratories of “EE+RE” Technologies (EEREL center)
  6. Contribution to guidelines for practice for EE+RE in industry and buildings
- HEBA will thus contribute to an increase of the local competences on EE+RE that will promote curriculum reform and leave a longer-term legacy for Egypt, Lebanon and Jordan universities.

### **Applicant Higher Education Institution**

University of Innsbruck, Austria

### **Online Information Page**

<http://sites.ju.edu.jo/en/heba/Pages/project.aspx>

**Year:** 2017

## **Project Title**

PACES: Progression of Accessibility centres in Higher Education for Students with Disabilities in North Africa

**Project Action:** Governance Reform

**Subject Area:** Justice, Home Affairs and Citizens' rights

**Budget:** €998,034.00

## **Project Summary**

Despite development of programmes and services for students with disabilities (SwD) in Egypt and Morocco over the last three decades, major challenges remain regarding the expansion of these programmes and in improving their quality (Hadidi and Al Khateeb 2015) A wide range of inhibiting factors prevail including: beliefs and prejudices in education and employment; lack of resources allocated; lack of structured approach for inclusive education; lack of consultation and involvement of disabled students; lack of data and evidence of programmes that work. Given that engagement in higher education leads to increased cultural, economic and social capital, it is imperative that the sector adapts to accommodate the diverse needs of students with disabilities. Most specifically, understanding and supporting the transition from higher education into employment, which can influence the subsequent life course of graduates, is a key outcome pursued by the world's major economies. The overall aim of the PACES project is to progress and set up a programme of initiatives in four universities in Egypt and four universities in Morocco to support the modernisation of higher education by developing Accessibility Centres (static, mobile and virtual) that will enable students with disabilities (SwD) to access assistive technology and support services. Outcomes include developing 8 static Accessibility Centres and training for teachers, technicians, administrators, employers and students.

Innovation in the project includes: Student Support Service (peer-to-Peer) 2 mobile (pop up) ACs and an Employer/HEI Network. The project impact will be at several levels. At micro level SwD will gain employability and transition skills to enable

them to move forward into employment. Institutions will benefit from improved performance of its students and sharing of best practice, which will lead to wider impact at a macro level across the partner countries.

**Applicant Higher Education Institution**

Coventry University, United Kingdom

**Online Information Page**

<http://pacesproject.eu/en/home>

**Year:** 2017

## **Project Title**

ProfEng: Innovative Lifelong E-Learning for Professional Engineers

**Project Action:** Higher Education and Society

**Subject Area:** Science and Technology

**Budget:** €895,421.00

## **Project Summary**

Egypt is experiencing a transition from production-based economies to ones based on knowledge and information. This transition changed the nature of jobs and the required skills. Competing in this global economy requires a science and engineering workforce that is consistently at the technological forefront. So, EG should examine the extent to which their current workforce meets their needs for human capital. The wider objective of this project is Bridging the qualification gap of professional engineers in EG with the EU standards The project aims to develop a LLL framework and four e-Lifelong learning centers (e-LLC) in four different EG universities to create progressively evolution from establishing of framework to develop actions and connections with engineering community

The Specific objectives of the project are:

1. Defining the qualification gap between Egyptian engineering and the labor market
2. Developing of an innovative LLL framework in partner universities
3. Establishing of four professional e- Lifelong Learning training Centers (e-LLC)
4. Developing an online Learning Management System (LMS)

The engineering profession must revisit and update its mindset and adopt a new mission statement - to contribute to build of a more sustainable, stable, and equitable world. Engineers must adopt a completely innovative attitude toward natural and cultural systems and reconsider interactions between engineering disciplines and nontechnical fields.

The project will be carried out to reach the following outputs:

1. EU experiences benchmarking in (3) engineering disciplines
2. Gap analysis report & EU Best practice manuals
3. Lifelong Learning framework and Professional standards
4. Training Course Contents and Materials
5. Training Program (4 training Modules)
6. Four E-Lifelong Learning Centers
7. Online Learning Management System
8. Recognition Process and measures & Pilot implementation,

### **Applicant Higher Education Institution**

KTH Royal Institute of Technology, Sweden

### **Online Information Page**

<https://eprofeng.edu.eg/>

**Year:** 2017

**Project Title**

AdapTM: Climate Change Management through Adaptation and Mitigation

**Project Action:** Curriculum Development

**Subject Area:** Climate action

**Budget:** €770,788.00

**Project Summary**

The overall wider objective, to which the project will contribute, is to continue the reform of the system of higher education in the area of applied Physical sciences (Environmental science) in Egypt to comply with the Bologna Declaration and according to the demands of the Strategic Framework for European Cooperation in Education and Training (ET 2020), aimed at improving of the quality and efficiency of educational process. The aim of the project is to ensure the design and implementation of an interdisciplinary Master degree study programme "Smart Environment and Climate Change Management" through conduction of joint interdisciplinary research, devoted to the synergy between theory and practice in sustainable development, in order to support Egypt with the integration of emerging technologies in environment management in a competence-based education system, hence advancing higher education according to the Bologna Process and European standards for quality of education.

The objectives and foreseen outcomes of the proposed project:

1. to design Master degree study programme curriculum integrated with the European education and research systems, in order to establish international standards of academic knowledge;
2. to involve researchers and practitioners into communication and to establish their joint participation in the educational process and research;
3. to train the academic staff of EG universities to be able to use a Master degree "Smart Environment and Climate Change Management";

4. to establish mechanisms and evaluation criteria that give a full analysis of the education process and content of courses as well as help to identify their strengths and weaknesses;
5. to implement innovative learning methods and a new collaboration platform for learning and academic environment to support the educational process;
6. to demonstrate the benefits of education based on the principles of Bologna process and European standards of quality in education.

### **Applicant Higher Education Institution**

Universita Degli Studi Di Catania, Italy

### **Online Information Page**

<https://www.ku.it/adaptm/about/>

**Year:** 2017

## **Project Title**

IMPAQT: Integrative Multidisciplinary People-Centered Architectural Qualification & Training

**Project Action:** Curriculum Development

**Subject Area:** Culture, education and youth

**Budget:** €972,620.00

## **Project Summary**

The project aims at creating integrative, multi-disciplinary, people-centered, EG/EU accredited undergraduate and professional development programs in Architecture and Urban Design for developing a new generation, who is capable to initiate a paradigm shift in the role of architecture and urban design from aesthetic-dominated into an INTEGRATIVE multidisciplinary, PEOPLE-CENTRED domain, building on solid ICT enabling technology foundation, and apply acquired knowledge and skills in BLENDING architecture and urban design core knowledge, with SOCIAL and ENVIRONMENTAL essential ingredients to initiate educated, scientific-based migration from dominating informal patterns in EG into an enabling, supportive and adaptive environment. The undergraduate program (344 ECTS), 92 ECTS of which are university-core courses, and the discipline-specific 252 ECTS are constructed in a modular design, integrating architecture and urban planning core courses (144 ECTS) with Structural and Construction Systems (18 ECTS), Building Ecology (24 ECTS), Human Behavior (12 ECTS), Contemporary City (12 ECTS) and a supporting Practicum modules, bridging the traditional gaps among different professional stakeholders in the field. Virtual Architecture Studio for immersive shared learning environment hosting 3D scanned EG sites is developed. Four professional development courses (6 ECTS each) targeting practitioners in integrative applications in Building Ecology, Human Behavior and Contemporary City are developed. The targets are undergraduate students in schools of engineering and fine/applied arts as well as professional architects.

The plan is to start running the program starting second year of the project in parallel at participating EG institutions to account for fine adjustments. A gap analysis will be developed and followed by comprehensive course development. A wide community impact is expected as outlined by various stakeholders from the higher and pre-university education communities.

**Applicant Higher Education Institution**

Technische Universitaet Wein, Austria

**Online Information Page**

<https://impaqt.edu.eg/>

**Year:** 2017

## **Project Title**

XCELING: Towards Excellence in Applied Linguistics. Innovative Second Language Education in Egypt

**Project Action:** Governance Reform

**Subject Area:** Culture, education and youth

**Budget:** €986,682.00

## **Project Summary**

XCELING aims to contribute to a modernization of the FL teaching in Egypt at different levels:

1. Modernization of FL teaching methodologies (TEACHING), with special emphasis on ICT.
2. Pre-doctoral training and learning in applied linguistics (LEARNING).
3. Open access materials orientated to FL learning for Arabic-speakers in social disadvantage (refugees, migrants, etc.) (OUTREACH).

In order to address these three aspects, XCELING will create a Network of 6 Language Innovation Centres (LICs). The LICs will have a threefold structure in line with these dimensions: TEACHING (train the trainers), LEARNING (pre-doctoral education) and OUTREACH (co-creation of open access teaching materials). The most important results, produced by the LICs, will be a program of both train-the-trainer sessions and of a capacity building program for future teachers through applied linguistics research. Besides, the LICs Network will create open access FL instructional material for Arabic speaking migrants and refugees and implement a pilot program with them. A possibility of co-tutelle for potential doctoral students and the integration of QA measures are other consequences.

As for the impact envisaged:

1. On the national level, current and future FL teachers would be exposed to innovative teaching methodologies. PhD students will be introduced to Applied Linguistics research.

2. At the international level, the beneficiaries will be the Arabic-speaking groups at a social disadvantage (refugees and migrants).

In addition, there will be a number of indirect beneficiaries, such as the Egyptian and European universities (in both cases their staff will learn important lessons), Egypt's Ministry of Communications (it will intensify ties with Europe), as well as governmental and non-governmental organizations whose objectives concern groups with problems of integration: they could receive

### **Applicant Higher Education Institution**

Salamanca University, Spain

### **Online Information Page**

<https://xceling.usal.es/>

**Year:** 2017

## **Project Title**

INNOLEA: Innovation for the Leather Industry in Jordan And Egypt

**Project Action:** Higher Education and Society

**Subject Area:** Business

**Budget:** €929,200.00

## **Project Summary**

The leather sector in Egypt and Jordan consists of companies that have no access to services like testing, training, research, studies, fashion, and financial funding instruments. On the other hand there are not any focal points in the 2 countries that bring together companies of the sector and universities. Innovation for the Leather Industry in Jordan and Egypt (INNOLEA) project aims at the support of the leather sectors in Jordan and Egypt with the transfer of knowledge from the EU. This will be achieved through the setting up of 4 leather centers in two Universities in Jordan and two in Egypt. The centers will be equipped with basic testing equipment, and with standards and books and its staff will be trained in EU leather centers' premises. EU partners as well as Chambers of Commerce of the two countries will help in the setting up of the centers and in testing their operation. The sustainable business model that will be developed through the project will set the basis for the sustainability of the four centers and for the establishment of new ones. The collaboration platform that will be created will be a collaborative workspace, ground of new projects and joint activities that will guarantee the sustainability of the project . The dissemination of the project will be achieved through development of a dissemination and exploitation plan. Dissemination tools include development of a database of contacts, printing of brochures, website of the project, twitter and facebook pages, the organization of two roundtables, a conference and the development of recommendations regarding "How leather centres are useful for the economic development of the region".

Through this project:

1. the leather sectors in Jordan and Egypt will be offered access to business development services
2. cooperation between HEIs and businesses will be promoted
3. further cooperation

**Applicant Higher Education Institution**

National Technical University of Athenes - NUTA, Greece

**Online Information Page**

<https://innolea-forum.com/index.php/en/>