

**FUNDING PROGRAMME:** Erasmus+ programme of the European Union, Capacity Building in the field of Higher Education (CBHE) Action

**PROJECT TITLE/ACRONYM:** Fostering innovation in the Jordan and Moroccan textile industry / FOSTEX

**AGREEMENT NO.:** 598347-EPP-1-2018-1-ES-EPPKA2-CBHE-JP

**TOTAL PROJECT BUDGET:** 999,901 EUR

**INCDTP'S BUDGET:** 40,034 EUR

**START DATE:** 15/01/2019

**END DATE:** 14/07/2022

**WEBPAGE:** [www.fostexproject.eu](http://www.fostexproject.eu)

## PARTNERS:



Universitat Politècnica de Catalunya BarcelonaTech (UPC)– **COORDINATOR** (ES)



AEI TÈXTILS (ES)



CRE.THI.DEV. (GR)



UNIWA - University of West Attica (GR)



CIAPE - Centro italiano per l'Apprendimento Permanente (IT)



Materially - Materially Srl Impresa sociale (IT)



The National Research & Development Institute for Textiles and Leather (RO)



JUST - Jordan University of Science and Technology (HKJ)



BAU - Al-Balqa Applied University (HKJ)



ESITH - Ecole Supérieure des Industries du Textile et de l'Habillement (MA)



ACI - Amman Chamber of Industry (HKJ)



UH2C - Université Hassan II de Casablanca (MA)



AMITH - Association marocaine des industries du textile et de l'habillement (MA)

## GENERAL OBJECTIVES:

The FOSTEX Erasmus+ project aimed to enhance capacity building in higher education textiles in Morocco and Jordan. The FOSTEX Erasmus+ project aimed to fill the gap in the area of specialised services for the textile sector by upgrading one textile centre in Morocco and by establishing three operational advanced textile innovation centres, one in Morocco and two in Jordan.

## SPECIFIC OBJECTIVES:

- To foster the university-industry collaboration;
- To support the development of innovation in the textile sector in Morocco and Jordan;
- To generate an ecosystem of advanced textile materials;

## SCIENTIFIC CONCEPT:

FOSTEX Erasmus+ aimed to upgrade the existing textile centre at ESITH and establish a new centre at UH2C, both Moroccan Universities, thereby transforming them into textile innovation centres that provide advanced and specialised services to companies. In parallel, the involved Jordanian universities, JUST and BAU, established innovation centres to address the shortage of specialised support from Higher Education Institutions in the country, enabling companies in the sector to invest in quality, innovation, and the design of added-value products.

## OBTAINED RESULTS:

- ✓ Deliverable D1.3: EU Best Practices Database
- ✓ Working visits in Morocco (ESITH, UH2C) and Jordan (JUS, BAU) to identify the possibilities of upgrading the laboratories and equipment, respectively, the needs and possible training structure (contents, e-learning tools, oral courses)

- ✓ 8 courses modules developed by researchers (Chiriac Laura, Surdu Lilioara, Radulescu Razvan Ion and Aileni Raluca Maria) from INCDTP.
  - Module 1:  
Instrumental analysis  
Quality testing
  - Module 2:  
International Conformity certification  
Environmental legislation (REACH)
  - Module 3:  
Advanced 3D textile composites based on 3D printing, polymeric matrix, fibers, nonwoven, knitted structures, and micro/nanoparticles for functionalisation
  - Module 4:  
Washing Fastness  
Colour Management and Testing  
Colour communication
  - Module 5:  
Advanced technology – Plasma treatments for textiles in order to avoid the restricted chemicals
  - Module 6:  
Testing for protective textiles and accessories
  - Module 7:  
Tensile strength testing  
Colour fastness testing
  - Module 8:  
Integration of textile testing results into technical specifications (requirements and statements)
- ✓ 25 services defined (in collaboration with UNIWA) for equipment purchased by partners from Jordan and Morocco.
- ✓ 5 workshops proposed to be organised by partners from Morocco and Jordan.

## DISSEMINATION:

### • WoS published papers:

**Aileni R.M., Radulescu R.I., Chiriac L.,** A new perspective in e-learning training toolkit development for advanced textile research centres in Morocco and Jordan, *Industria Textila*, Vol. 72, no. 5/2021, pp. 569-78, ISSN 1222-5347, doi:10.35530/I.T.072.05.1849

### • SCOPUS published papers:

**Aileni R. M., Chiriac L., Radulescu I.R.,** Fostering advanced textile centers through e-learning in Morocco and Jordan, *ICAMS 2020 Proceedings*, pp. 569-573, ISSN: 2068 – 0783, doi.org/10.24264/icams-2020.I.1

### • BDI published papers:

**Aileni R.M., Chiriac L.,** Role of the e-learning courses for capacity building in the field of advanced materials development, *TexTeh 2021 Proceedings*, Vol. 10, pp. 314-320, ISSN 2068-9101, DOI: 10.35530/TT.2021.43

### • Scientific communications:

1. FOSTEX project presentation on INCDTP website [www.certex.ro](http://www.certex.ro)

2. FOSTEX project presentation on *Industria Textila Journal*, vol. 71, issue 5, 2020.

3. **Aileni R.M.,** Bune practici pentru realizarea centrelor cercetare pentru material textile avansate –FOSTEX, Workshop “Realizări inovative și perspective de dezvoltare a materialelor avansate cu proprietăți electroconductive”, 2019

4. **Aileni R.M., Surdu L., Chiriac L., Chirila L., Radulescu R.I.,** Fostering the Jordanian and Moroccan textile industry through training and advanced textile center development, Workshop “Eveniment de popularizare a științei în domeniul TEXTILE”, online ZOOM, 2020

5. **Aileni R.M., Chiriac L., Radulescu R. I.,** Enhancing advanced textile centers development in Morocco and Jordan based on e-learning courses, online Workshop “Evenimentul de popularizare a științei” - proiect 6PFE/2018 (using Webex Tools), INCDTP, Bucharest, October 2020

6. **Aileni R.M.,** Consolidarea capacității de cercetare și dezvoltare de materiale textile avansate în Maroc și

Iordania, Workshop “Materiale avansate și Inginerie în contextul dezvoltării durabile” (online, zoom), Bucharest, June 2021

**7. Aileni R.M., Chiriac L.**, Digital capacity-building, Workshop “Tehnologii inovative și materiale avansate în contextul economiei circulare” (online, zoom), Bucharest, October 2021

**8.** Participation in the Interim Conference Casablanca-Morocco (hybrid conference (online/on-site)), 30/03/2022

**9.** Participation in the Final Conference, Amman, Jordan, on-site, 23/05/2022

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