



FUNDING PROGRAMME: Erasmus+ programme of the European Union
Capacity building in the field of Vocational Education and Training

PROJECT TITLE: Innovation in Smart and Digital VET Skills for
Advanced Textile Industry (InnovaTex)

CONTRACT No.: 101183393

PROJECT STARTING DATE: 01.01.2025

PROJECT ENDING DATE: 31.12.2027



PROJECT PARTNERS:



INCDTP - COORDINATOR (RO)



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



CRE.THI.DEV. (GR)



Institutia Publica Centrul de Excelenta in Industria Usoara din Chisinau - IP CEIU



Kherson National Technical University - KNTU



Kyiv National University of Technologies and Design - KNUTD



University of West Attica (GR)



Universitatea Tehnica a Moldovei - TUM

In the framework of the **Innovatex Erasmus+**, two **Smart Labs** will be created and equipped with software and equipment in Moldova and Ukraine. In addition, two advanced staff training sessions will be organized in Greece and Romania.

- ✦ **The main objective** is to address continuous vocational training in 3D smart textiles for personal protective equipment (PPE) by updating the VET training & integrating the principles of 3D Smart Textiles for personal protective equipment (PPE) into the curricula of VET training providers.
- ✦ **The most significant achievement** will be improving the digital and innovative skills related to technical textiles of VET trainers, existing employees, or newcomers in textile companies in Moldova and Ukraine.

CONTACT: Project Manager CS I Dr. Eng. Aileni Raluca Maria raluca.aileni@incdtp.ro



FUNDING PROGRAMME: NUCLEU TEX-PEL-CHALLENGE 2026

PROJECT TITLE: Electroconductive materials based on multilayer metallizations for thermoelectric systems, electromagnetic shielding and biomedical sensors integrated in IoT systems (3D-WearIoT)

CONTRACT No.: 6N / 01.01.2023, PN 23 26 01 03

PROJECT STARTING DATE: 01.01.2023

PROJECT ENDING DATE: 31.12.2026



The main objective of the **3D-WearIoT project** is to develop conductive multilayer materials for sensors, EM shields, actuators, supercapacitors and thermoelectric generators using advanced (plasma, electrospinning, electroplating, ultrasonic) and classic technologies.

Specific objectives:

- O1: The realization of electroconductive materials through multilayer metallization based on advanced technologies (sputtering magnetron plasma RF, spin coating, 3D printing, microwaves, electrospinning) and classical (lamination, direct printing and electroplating) for sensors, actuators, EM screens, thermoelectric materials and supercapacitors.
- O2: Use of information technology for 3D printing and electrospinning, evaluation of electroconductive materials, simulation, optimization, predictive analysis of experimental data and integration into IoT systems.
- O3: Environmental impact assessment for electroconductive textiles and sustainability analysis of materials used for sensors, actuators, EM screens, thermocouples and supercapacitors.

In the framework of the **3D-WearIoT project**, we have developed electroplated textiles designed for electromagnetic (EM) shielding. These textiles were evaluated to measure their effectiveness in shielding against electromagnetic radiation in the frequency range of 20 MHz to 1 GHz. The results revealed an electromagnetic shielding effectiveness (SE), measured in decibels (dB), ranging from 6 dB to 51 dB. This measurement was performed using the DTEM 20-100 MEASYS SYSTEM, along with an RF amplifier and a spectrum analyzer,



CONTACT: Project Manager CS I Dr. Eng. Aileni Raluca Maria raluca.aileni@incdtp.ro

