M-NEST-I

NETWORK FOR EMPOWERING PEOPLE IN ADDED-VALUE MANUFACTURING SYSTEMS AND TECHNOLOGIES / PHASE I

eit Manufacturing

EIT Manufacturing is supported by the EIT, a body of the European Union

PROJECT START
(01/01/2020)

299,404.00€
EIT Funding

Factory Units' Diagnostic
02/2020

Collaborative Workspace
08/2020

Guidelines
12/2020

Innovative learning materials
2021-2023

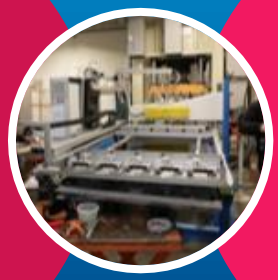
Global recognition
2023-2025

CHALLENGE

- Establish a robust and sustainable structure that hosts all types of activities that target the empowerment
- Build the European manufacturing community of the future

SOLUTION

- Create from scratch a distributed Teaching and Learning Factory (TLF)
- Use manufacturing clusters as testbeds and pilot demonstrators



BENEFITS

- Capitalize from and create synergies with ongoing Key Complementary Activities
- Build a European "Hybrid Materials and Technologies" TLF

MAIN PROJECT RESULTS

7 LEARNING MODULES

6 TEACHING FACTORIES

7 LEARNING FACTORIES

"thanks to EIT we will bring together the EU industrial and academic communities in novel educational schemes"

CLÁUDIO SANTOS
Project Manager at INEGI

MAIN PRODUCT
M-NEST I
AIM: Provide a wide range of training activities focused on the most advanced processing and production technologies

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MANUFACTURING TECHNOLOGIES FOR MATERIALS AND PROCESSES HYBRIDIZATION

EUROPEAN MANUFACTURING COMMUNITY OF THE FUTURE

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M-NEST-I is putting forward a distributed teaching and learning factories building on complementary knowledge and competence assets from **four Factory Unities** based in **Portugal, France, Finland and Switzerland.**

These four Factory Units are built upon key complementary AVM technologies:

- ❑ Multimaterial / Metal / Composites Processing;
- ❑ Manufacturing Simulation & Virtual/ Augmented Reality;
- ❑ Reconfigurable & Flexible Manufacturing Automation;
- ❑ Industrial Engineering & Smart Factory.

LEARNING MODULES

- Multimaterial Processing
- Adhesive Joining
- Metal Forging
- Virtual Reality/Augmented Reality
- Reconfigurable & Flexible Manufacturing Automation
- IT & Industrial Communication Systems
- Industrial Engineering & Smart Factory

MAIN RESULTS

A total of **three teaching factories** and **seven learning factories** have been established and are under implementation in the four Factory Units.

PROOF-OF-CONCEPT

Preliminary results so far indicate consistent proximity between industrial needs and academic environment, with engagement of **four companies** that have **challenged students to work on real industrial case studies.**

In sum, the overall objective of **M-NEST-I** is to **provide a proof-of-concept**, leveraged by digital technologies, of an **emerging teaching paradigm** to **connect industry to research and development institutions/universities to empower the European manufacturing community.**

"This project M-NEST I has received funding from the European Union's Horizon 2020 research and innovation programme under the grant agreement EIT/EIT Manufacturing/SGA 2020/1"