PreVEnT

Co-funded by the European Union

Newsletter

PreVEnT
Educational Content Finalised

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Introduction

We are proud to announce the successful development and completion of the educational content under Work Package 2 (WP2) and Work Package 3 of the PreVEnT project: Predictive Maintenance via Deep Tech Solutions for Environmental and Social Impacts in Manufacturing. These outcomes mark a significant step in building capacity among VET learners, trainers, and institutions to adopt predictive maintenance and deep tech solutions in manufacturing, while addressing inclusion, engagement, and certification needs.

WP2: Deep Tech Toolkit for VET Learners

WP2 delivered a full Predictive Maintenance Toolkit, structured across four competence units (CUs), focusing on:

- CU1: AI & Machine Learning in Predictive Maintenance
- CU2: Collaborative Robotics & Human-Machine Interaction
- CU3: Advanced Materials & Lifecycle Thinking
- CU4: Environmental and Social Impact Tools & LCA

Each unit includes digital slides, video explainers, concept maps, and webquests, enriched by a curated Resource Hub featuring over 100 open-access materials. Learners can now earn micro-credentials for each CU, validated through EUROPASS Digital Credentials.

WP3: Open Educational Resources & Trainer Toolkit

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Building on the learner toolkit, WP3 created a complementary package to empower educators and trainers:

- CU1: Engaging Pedagogies & Brain-Based Learning
- CU3: Inclusion of At-Risk Groups in Online VET
- CU4: Developing Predictive Maintenance OERs
- CU5: Designing Micro-Credential Systems

The WP3 toolkit integrates digital formats, AR/VR content, formative assessments, and best practices for inclusive education. It supports educators in creating accessible, interactive, and flexible learning environments. Trainers are also equipped to create and issue micro-credentials, with templates and guidelines for recognition and industry alignment.

Highlights include:

- AR-powered simulations for predictive maintenance.
- Accessibility strategies for learners with disabilities, migrants, and low-income groups.
- Digital pedagogy approaches based on Universal Design for Learning (UDL) and growth mindset principles.

Micro-Credentials Now Available

Learners can now pursue micro-credential certification in each Competence Unit. Each certification includes an online assessment and is registered via EUROPASS Digital Credentials, supporting learners' employability and skills validation across Europe.

What's Next?

With WP2 and WP3 content now complete, the PreVEnT consortium is preparing for:

- Broader **dissemination** of the micro-credentials.
- Integration of the tools into hybrid **Teaching Factory Pilots**.
- Continuous **feedback loops** for improving the materials.

Visit https://deeptechprevent.eu to explore the toolkits, register for certification, or download the OERs.