

DITMEP

Digital Tools for Manufacturing training and Education Programmes

Project number: 2021-1-DE02-KA226-VET-008289

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Project Overview

In the context of current COVID-19 crisis Education and training systems are facing new challenges regarding online learning, for guaranteeing quality and inclusive digital capabilities. Modernisation and digital transformation of education is a main need at European level, and in particular for vocational education and training schemes in manufacturing sectors, based on face-to-face classes and workshops linked to industry.

In particular, **DITMEP** project will focus on risk prevention modules, within the manufacturing of composites training schemes. This sector is of high interest for different industrial sectors at EU level, thus aiming to reinforce skills training for the EU industry.

DITMEP project aims to improve manufacturing training, in particular Risk prevention courses, generating digital capabilities on the methodology (through e-learning, gamification and augmented reality experiences) for educators and trainees. This will support and help the transformation of manufacturing in this current COVID-19 situation.

The main objectives are:

- Training course deployment in an e-learning platform with a core syllabus on Risk Prevention and Health, prepared for its adaptation to the specific countries regulation.
- Deployment of a common gamification methodology for Risk Prevention training modules
- AR mobile application development to support 2 series of learning experiences proposed as part of the core training (virtual spaces signalisation and emergency drills).
- To reinforce learners and teachers with digital capabilities: guides on how to use the materials, how to complement in-presence teaching and to develop on-line trainings. A common structure in English will be translated by the regional partners.
- Providing tools and methodology evaluation through pilot training implementations (3 countries) with included tests for evaluating the procedures from the teachers/learners.

The **DITMEP** project receives funding under the [ERASMUS + programme](#) of the European Union.

Project status

In the area of training courses for occupational safety, we have completed the first training materials. In addition to a theoretical part for each module, this also includes the development of tasks/gamefication for the interactive area on the Moodle platform.

Modules 1 and 2 of Block 1 “General Risks” have been completed in English, Spanish, German and Portuguese.

At present we are developing the training materials for the course PREVENTION OF OCCUPATIONAL RISKS IN THE MANUFACTURE OF GLASS FIBRE REINFORCED POLYESTER COMPOSITE MATERIALS.

- Four units of the moodle are in an advanced stage of development, and are at present being reviewed, while the other five are still in development.
- We are gathering images and developing graphic materials to better illustrate the units, and a specific revision to increase the interactivity of the moodle courses will be conducted in the following months.
- We are involving Galventus in the development of the training units. [Galventus](#) is a reference in the maintenance for wind turbines, and also produces and repairs components in composite materials. Their contribution to the design of the training units will ensure its utility for the industrial partners, complementing the approach done by the Aixola Training Centre.
- The scripts for the Augmented Reality scenarios have been set up, and we are at present implementing the tools and fine-tuning the visual layout.



The first impressions of the “Signalization” tool can be seen on our homepage www.ditmep.eu in the ["Intellectual Output"](#) section

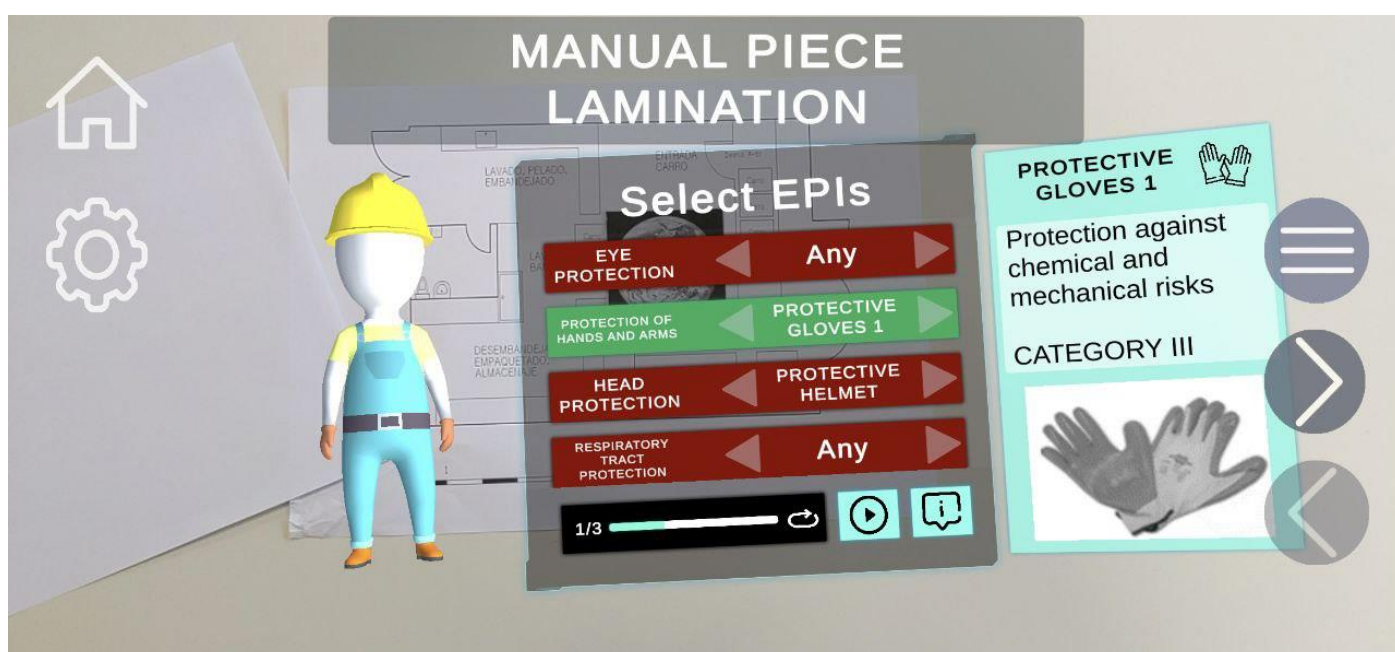
In the floor plan of a company, QR codes can be generated in the various rooms or areas. When the tool user scans a corresponding QR code, he must correctly select the signs belonging to this

area. In addition to the signs themselves, there is also a detailed explanation of the signs. The students can acquire the basic theory in the associated theory documents.

Our next steps

The next steps will be the following:

- We will start the validation of the development of the first AR scenario (signalization). The basic development of this scenario is almost complete; we are waiting for the individual floor plan and the corresponding final signals.
- We will complete the development of the e-learning virtual space with the contents that our partner CETMAR has been created.
- We will start the development of the second AR scenario (selection of personal protection equipment). We already have a first approach and, in fact, we have completed the development of the first activity for this scenario. (see picture below)



Project meetings

Third Meeting, August/September 2022

Our third transnational project meeting is planned for August/September 2022. This will take place in Lisbon at our partner ISQ.

Until then, we will continue to advance the **DITMEP** project in smaller online meetings.



Dissemination and Exploitation of project results

On the project website www.ditmep.eu, all results will be published. There will be also published 4 newsletters during the project. If you are interested in this newsletters, you can register in our database through the link on our website.

Finally the project is located on LinkedIn. Follow „[DITMEP Erasmus+ Project](#) “ and you will be informed about the current project status.

Project Consortium

Universities and training centres from three countries come together, to improve manufacturing learning, in particular Risk Prevention courses, generating digital capabilities on the methodology (through e-learning, gamification and augmented reality experiences) for educators and trainees.

Project Leader:

Renewable Skills & Consultant GmbH



Project Partners



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