



Confédération Européenne de l'Industrie de la Chaussure
European Confederation of the Footwear Industry

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Augmented Reality through a “Learning-by-Doing” Approach:

Let's discover the Footwear Digital FabLab!

In December 2021 in São João Da Madeira, Portugal, one-week training workshop was held aiming at allowing VET trainers and teachers to get started with tools for the development of training contents in Augmented Reality, and help to discover what could be the future VET education in the footwear industry. The event was organised under the Erasmus+ Digital FabLab project that aims to simulate real-world experience built on latest technologies in order to develop learning-by-doing tools and teaching material that can offer a stimulating experience to students and help them acquire the right skills to produce quality footwear from anywhere in Europe. The outcome of training sessions were positively evaluated by all participants, and opened the door to an innovative digital training method for the footwear sector.

AR is an enhanced version of the real/ physical world, that combines elements of the real world and digital additions such as visual elements, sound, or other sensory stimuli delivered through technology. It most often involves a camera-equipped device—such as a smartphone, a tablet, or smart glasses—loaded with an AR software. During the workshop, AR implementation was discussed in depth with practical examples and demonstrations on how it can be used in footwear. Throughout the week, the Digital FabLab sessions aimed at providing participants with the necessary tools and skills, in order to master the programme presented and incorporate AR into their practices. The programme used was specially geared towards VET teachers, in order to explain them how they could fully incorporate the digital FabLab into their regular curricula and simulate a real-world experience with the latest digital technologies and, thus, provide a stimulating experience for students. One specific tool presented that is being developed by the partners is the BlippAR app. The BlippAR app can easily be downloaded on a smartphone or tablet and has many interesting functions that can create an interactive and stimulating experience for students in learning about footwear design and production. Some of the examples shown included the use of a smartphone's photo camera to scan markers and view 3D images of various objects such as a shoe upper or a sewing machine and interact with the image, in order to learn more information about its parts and functions. In addition, the training programme involved various workshops and working groups. Divided by groups, participants developed training strategies for students in VET and Higher education and after various sessions of practice and content creation, presented their ideas for review and feedback.

The trainings' outcome and discussions illustrated how a learning-by-doing approach through Augmented Reality technology can complement the work-based learning and present appealing future opportunities for the footwear sector. AR technologies can potentially contribute to closing the existing gap in distant learning and the close contact with footwear machinery and equipment. Furthermore, the Digital FabLab – and the associated courses – will be accessible from anywhere in Europe, making it possible to reach new potential footwear professionals and develop practical footwear manufacturing skills. To conclude, we



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are all experiencing how Augmented Reality is rapidly stepping into our lives, and the Digital FabLab project presents an opportunity for VET providers to jump into this high-speed train and benefit from it. By adopting and blending this technology into learning programmes, footwear VET education will become more attractive, efficient and inclusive.