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CRANE 4.0

# NEWSLETTER 3

September 2021

# A DIGITAL TRAINERS TOOLBOX TO HELP CRANE OPERATORS UPDATE THEIR SKILLS FOR INDUSTRY 4.0 ENVIRONMENTS

CRANE 4.0 aims to up-skill and re-skill the European construction labour force with new skills in order to meet the demand of the labour market for new digital competences.

Applying Virtual Reality (VR) in vocational training and in on-the-job situations involving complex tasks facilitates the visualisation of the activities to be performed, even the riskiest ones, and the transmission of knowledge-intensive skills leading to an increased training quality.

The gap between conventional teaching methods and the everyday work life of trainees, that is shaped by information technologies, is growing and vocational training needs to cope with the pace of digital advancements.
CRANE 4.0 develops innovative training paths and methods for teaching, learning and assessing the learning outcomes, through the use of Virtual Reality thus supporting the educators and learners in using digital technologies in creative, collaborative and efficient ways.

## AIMS

The project aims to improve work-based and initial/continuous learning of crane operators to adapt their skills to the Industry 4.0 requirements. It will do so through the development of a Virtual Reality (VR) application downloadable from partners' websites, from the project website and from the main platforms for application download.

The innovative use of the VR in the training of crane operators is an added value for all those public and private VET providers who want to offer upskilling pathways to their educators and training.

## RESULTS

CRANE 4.0 will develop three main outputs:

- Curriculum Handbook - a Transnational job analysis and report, Course Plan and Didactic Manual for Crane Operations 4.0.
- Virtual Reality Application development - VR app, Users' Technical Guide, Manual for assessing the quality of the VR app and learning outcomes.
- Blended pilot testing - 55 crane operators trained and a Procedural Manual for the implementation of the VR-Labs.

*This project has been funded with support from the European Commission.*
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# 3RD TRANSNATIONAL WEB MEETING – 8 & 9 APRIL 2021

On April 8th and 9th, the project partners of the CRANE 4.0 project organized a web conference within the 3rd Transnational Meeting. The third transnational meeting was planned to take place in Bucharest, Romania, but due to the context created by the COVID-19 crisis, the meeting was organized on the Teams platform.

The conference was opened by the project coordinator SGS with the presentation of the meeting agenda. Then SGS and IBOXC presented the status of IO1: Crane operators 4.0 Curriculum Handbook and a short review of the Course Plan and Curriculum.

Discussions continued with the presentation of the status of the modules developed by each partner. All partners confirmed the review of the modules. The modules will be included in the didactic manual.

The manual will be available in the national languages of each country in the project consortium.

The partners agreed to develop the PowerPoint Presentation for each Module. The PPTs will be used by trainers during the blended training, and they will be shown to trainees as supporting material.

These PPTs will express concepts in a visual way (charts, tables, graphs), images, external resources (videos, articles, etc) and will be available on the project website.

The second part of the meeting was dedicated to the IO2: Development of the CRANE 4.0 Virtual Reality Application. The partners have stetted up the Virtual Reality scenarios that will be developed according to the Didactic Manual.

On the second day of the meeting, SIAV made a presentation on the project dissemination strategy and plan: an overview of activities, visibility, and impact of the project.

SGS presented aspects related to the financial management of the project.
The online conference ended with a review of project tasks and work schedules for the coming months.

The 4th Transnational Meeting is planned to take place in Greece or Malta, in March 2022 depending on the evolution of the COVID-19 situation in the two countries.
Until then we will keep you informed of all the advances of the CRANE 4.0 project through the project's website www.erasmuscrane40.com or via our social media pages on Twitter and LinkedIn.

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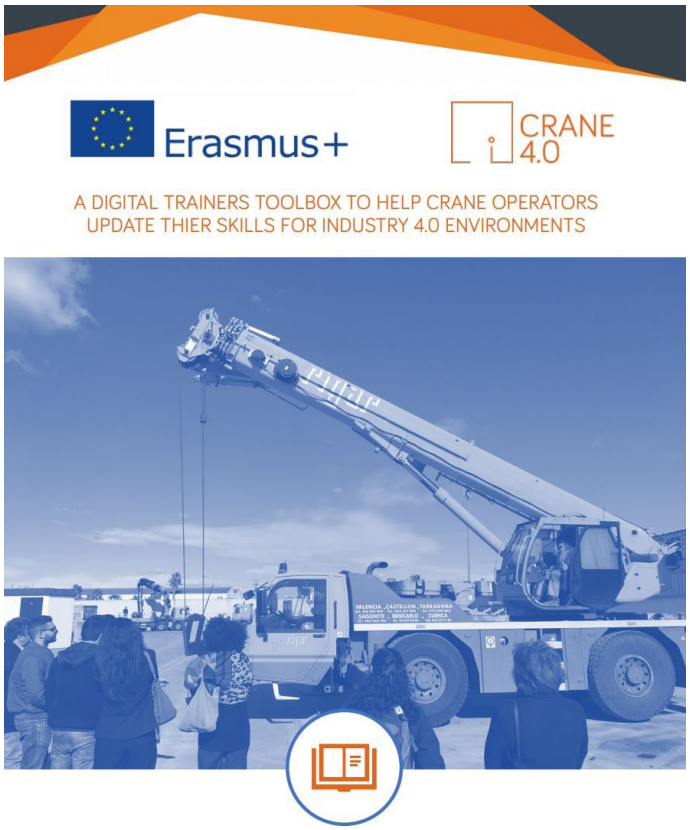
# DIDACTIC MANUAL

A Didactic Manual for Crane Operations 4.0 was developed by the project partners. In the content of the manual, you can find six modules, a glossary and a bibliography.
Each module includes a short introduction, the content related to its topic, learning objectives, competencies and assessment exercises.

The modules available in the document are:

MODULE 1 - Safety/Tools and Equipment
MODULE 2 - Rigging
MODULE 3 - Load Charts and Load Weight Calculations
MODULE 4 - Pre-Operational checks, inspections, and maintenance
MODULE 5 - Mobile crane set-up
MODULE 6 - Mobile Crane Operations




The Didactic Manual "A DIGITAL TRAINERS TOOLBOX TO HELP CRANE OPERATORS UPDATE THEIR SKILLS FOR INDUSTRY 4.0 ENVIRONMENTS" in English is available here:

DOWNLOAD THE ENGLISH VERSION OF THE DIDACTIC MANUAL

As soon as possible, the Didactic Manual in Romanian, Spanish, Italian and Greek will be available on the project website.

# NEXT STEPS

The next steps for the Crane 4.0 partners are:

- translation of the didactic manual in Romanian, Spanish, Italian, and Greek.
- development of the educational Virtual Reality tool following IO2: Development of the CRANE 4.0 Virtual Reality Application of the project.
- development of the Virtual Reality Application.

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