

DIGITALIZATION & INNOVATION OF TRAINING DELIVERY ACROSS EUROPE

17.11.2021



Co-funded by the
Erasmus+ Programme
of the European Union



WELDONE | BOOSTING INNOVATION IN WELDING TRAINING



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Project No 2019-1-HR01-KA202-06 0814

Final Conference

#STRUKA



ASR

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ABOUT THIS EVENT

WELDONE Final Conference

Aims to present WELDONE project and its outcomes, and to discuss the possibility of mainstreaming them at EU level, more specifically

IO5 Pedagogical Guideline for EWF Training System



<https://weldone-project.eu/>

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WELDONE main goal is to **capacitate teachers /trainers from EWF Qualification System** and **educators from STEM fields** to uptake an **active learning approach** by using **innovative pedagogical approaches** in technical training.

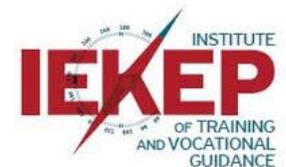


November 01, 2019

–
May 01, 2022



Coordinator



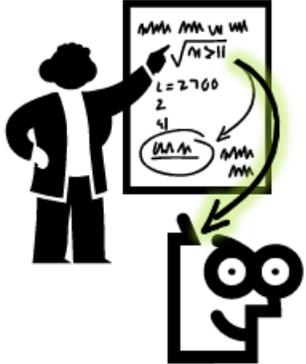
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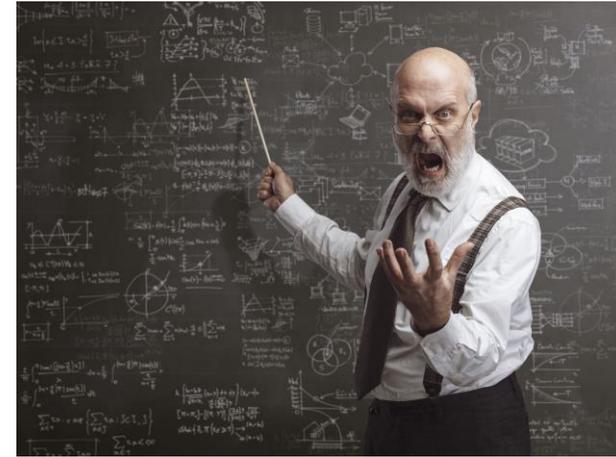
"The future of work will be a race between education and technology. "

Mauricio Macri, Former President of Argentina, host of G20, 2018



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Paradigm & Illustration	“Old” Paradigm ¹⁸	“New” Paradigm ¹⁸	21 st Century
			
Knowledge	Transferred	Jointly Constructed	Globally Shared
Students	Passive Vessel	Active Constructor	Problem Solvers
Faculty Purpose	Classify and Sort	Develop Talents	Coach, facilitator
Relationships	Impersonal	Personal Transaction	Ad hoc, peer to peer
Context	Competitive	Cooperative	Social
Assumption	Any Expert Can Teach	Teaching is Complex	Self-Actualization

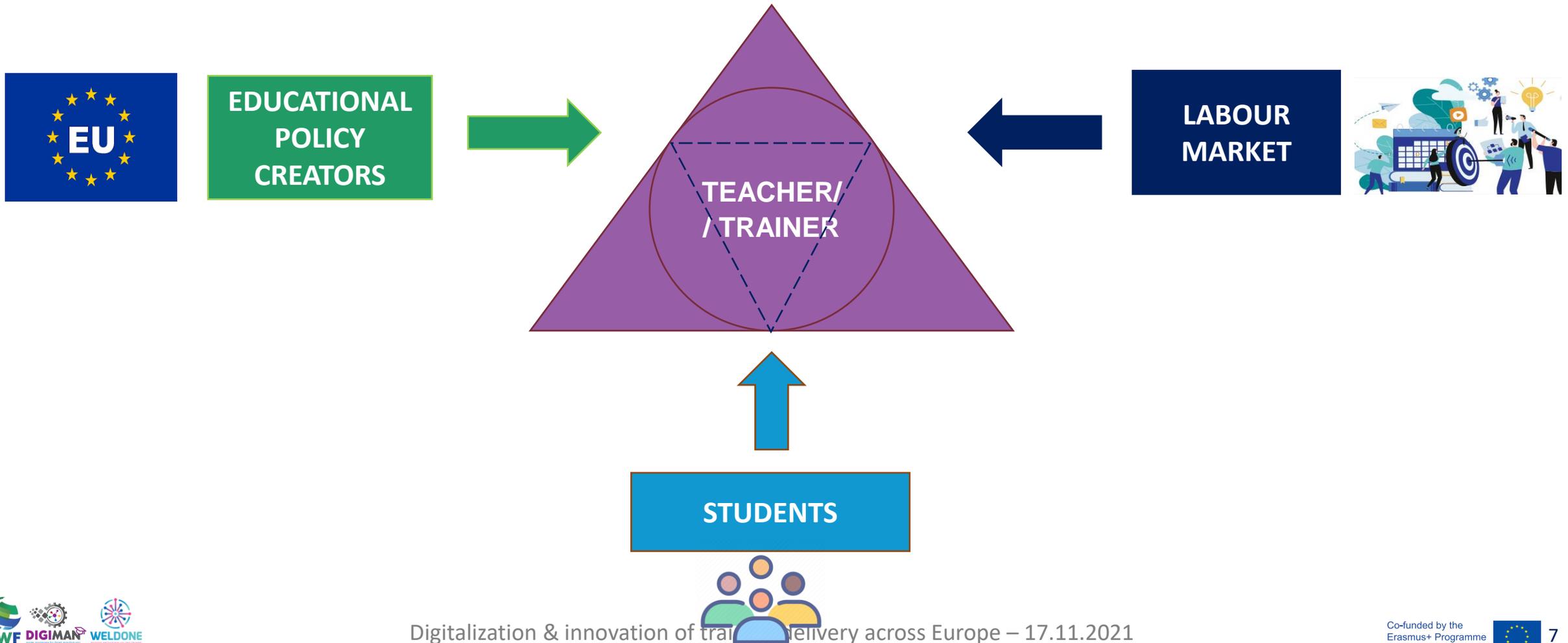


10 Skills for Modern Teachers

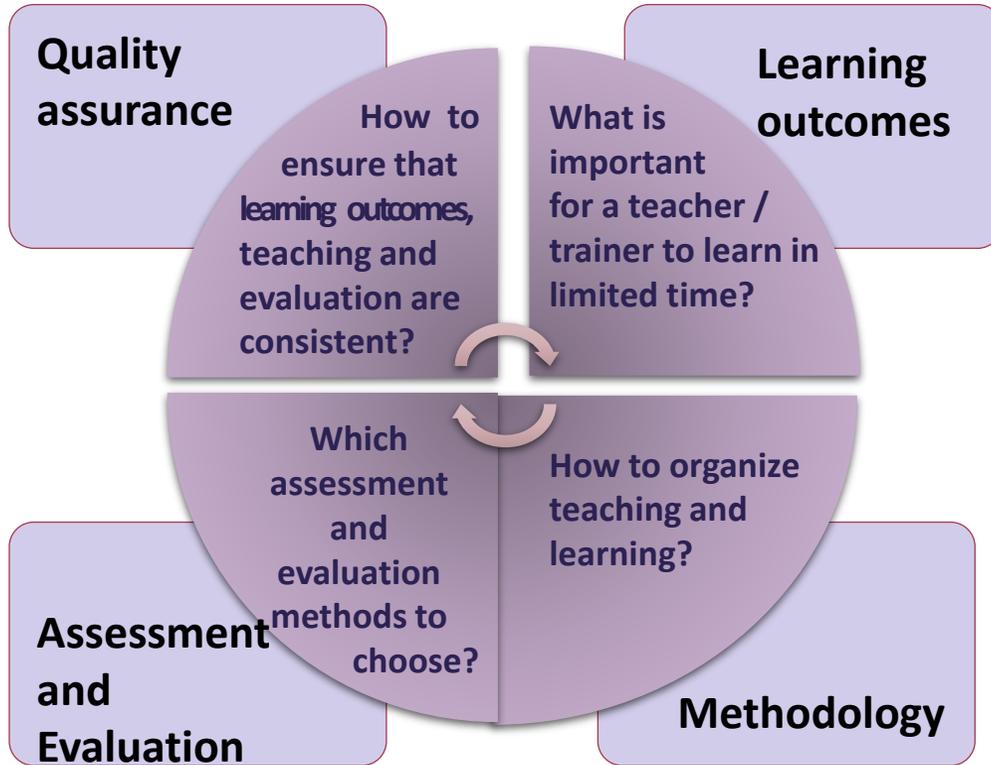


examtime
Transform Your Potential

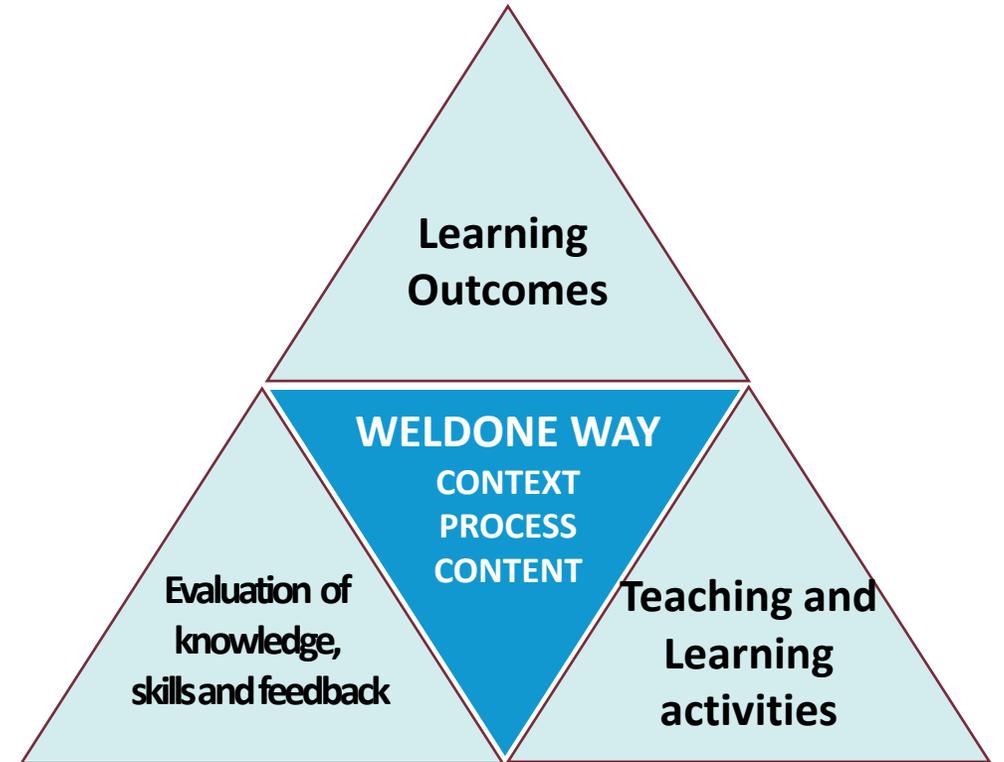
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**Training of Trainers (ToT)
Curriculum creation**



Creating a teaching process in a WELDONE way

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Competence Matrix Name of the CU	
SUBJECT TITLE (S)	
...	
...	
...	
CONTACT HOURS (Total)	
WORKLOAD	
LEARNING OUTCOMES (name of the CU)	
KNOWLEDGE	(Descriptor of the EQF level addressed by the CU) Factual and theoretical knowledge of the principles and applicability of: Specialized factual and theoretical knowledge of the principles and applicability of: (...)
	<ul style="list-style-type: none"> • (...) • (...)
SKILLS	<ul style="list-style-type: none"> • (...) • (...)

EQF level 4 descriptor

EQF level 5 descriptor

Written as Learning Outcomes (i.e., Rules)

Terms & Definitions:

Subject Title – Topic(s) or contents of the CU (connected to Knowledge)

Contact Hours - Total number of hours needed to implement the CU in terms of theoretical and practical training in classroom context

Workload - estimation of the time learners typically need to achieve the defined learning outcomes. It covers theoretical training and self-study, as well as the time devoted to practical training and examination

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IO 1 WELDONE ToT Curriculum

CU1 Multiple intelligences and learning styles	EQF 4
CU 2 Learner centered didactics: Problem based learning, Critical thinking and Collaborative learning	EQF 5
CU 3 Gamification	EQF 5
CU 4 Digital competence and using digital resources	EQF 4
CU 5 New media didactics: the use of social media, micro-learning	EQF 5
CU 6 Personal, social and learning competence	EQF 4
CU 7 Entrepreneurship competence	EQF 4

Features

- ✓ **Seven Competence Units (CUs)**
- ✓ **Modular structure**
- ✓ **EQF levels 4 and 5**
- ✓ **Workshop model (implementation method)**
 - Step one: Opening
 - Step two: Mini lesson
 - Step three: Work Time
 - Step four: Debriefing



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Implementation Tools

IO 2	Conceptual Handbook
IO 3	How to get WELDONE
IO 4	Assessment methods
IO 5	Pedagogical guideline for EWF Training System



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IO5 Pedagogical Guideline for EWF Training System

What is it?

Recommendation guide to foster the change of mindset on how training can be delivered by teachers/trainers belonging to EWF Qualification System, to foster the use of innovative pedagogical strategies for an open and active learning environment.

Implementation of the ToT Course within EWF Qualification System



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WELDONE ToT Course Curriculum

ToT Competence Units (CUs)	Recommended Contact Hours*	Expected Workload **	EQF level addressed by the CU	Related EWF Proficiency Level
CU1 – Multiple intelligences and learning styles	12	24	EQF 4	Independent
CU2 – Learner Centred didactics: Problem based learning, Critical thinking and Collaborative learning	10	20	EQF 5	Specialized
CU3 – Gamification	14	28	EQF 5	Specialized
CU4 – Digital competences and using digital resources	12	24	EQF 4	Independent
CU5 – New media didactics: the use of social media and micro-learning	10	20	EQF 5	Specialized
CU6 – Personal, social and learning competences	11	22	EQF 4	Independent
CU7 – Entrepreneurship competence	12	24	EQF 4	Independent
Total	81	162		

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Main purposes of each CU

CU1 Multiple intelligences and learning styles

The main focus of this CU is the theory of multiple intelligences (MI) and the theory of learning styles (LS) and their practical integration in curriculum development and assessment, as well as in the classroom itself, as a way to help learners applying their type of intelligence in their learning process and be motivated and engaged in learning.

CU 2 Learner-Centered Didactics: Problem-Based Learning, Critical Thinking, and Collaborative Learning

This CU addresses the Learner Centered Approach and its different pedagogical strategies, aiming to capacitate teachers/trainers to engage and encourage their learners' active involvement in the learning process and experience by using those strategies, hence replying to the growing need to stimulate active learning and to encourage learners to be creative and critical thinkers, able to work collaboratively with others.

CU 3 Gamification

This CU aims to enable Trainees to create games or gaming environment in welding education. They will get acquainted with developing a gamified exercises, tools or events that can be used in training situations such as developing motoric skills, memorizing materials, increase motivation in learner groups to achieve better results.

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Main purposes of each CU

CU 4
**Digital Competence and
using digital resources**

The concept of Digital competence covers all the necessary knowledge and skills required to give to a person the capability to operate, in specific conditions, any equipment which has digital components in order to solve a professional tasks. It means the ability to understand and use the communication via internet, to understand and use media, to be able to search information and extract the correct and useful one, and to be able to use different digital tools for personal and professional improvements.

CU5
**New Media Didactics: The
use of social media &
Micro-learning**

This CU deals with design of a new didactics appropriate for welding classes and for the whole STEM fields, based on two pillars: social media and micro-learning. The basic objective is to enable teachers/trainers in welding and STEM to acquire knowledge and skills that will enable them to be equal in the teaching process with the new digital generations of learners to lead the teaching process.

CU6
**Personal, Social and
Learning Competence**

This CU aims at the enhancement of strong personal, social and learning competences in order to make the individual able to effectively cope with the growing competition in educational and professional environments

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Main purposes of each CU

CU7
Entrepreneurship
Competence

In this CU we propose to deconstruct this idea that Entrepreneurship competence is all about management skills: it refers to the capacity to act upon opportunities and ideas, and to transform them into values for others, managing risk, uncertainty and ambiguity

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CU1 Multiple intelligences and learning styles

CU 2
**Learner-Centered Didactics: Problem-Based Learning, Critical Thinking,
and Collaborative Learning**

CU 3
Gamification

CU 4
Digital Competence and using digital resources

CU5
New Media Didactics: The use of social media & Micro-learning

CU6
Personal, Social and Learning Competence

CU7
Entrepreneurship Competence

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WELDONE ToT Course

Access Conditions

- ✓ Teachers/trainers belonging to EWF Qualification System, educators from STEM fields and from VET and/or adult education interested in including the WELDONE approach in their training/teaching practice;
- ✓ Good level of understanding of the English language (necessary to understand all the supporting documents).



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WELDONE ToT Curriculum

Special Requirements

Under discussion

- ✓ In order to attend the ToT course, applicants must **comply with the access conditions**.
- ✓ Assessment of Trainees based on CUs' Learning Outcomes and not on a specific assessment tool.
- ✓ Record of Achievement after assessment approval at the end of the implementation of a CU
- ✓ Certificate of Attendance/Approval, at the end of the implementation of the ToT course.
- ✓ Unlimited validation.
- ✓ Trainees must successfully complete practical assessment described in each CU by achieving a minimum pass mark of 60% (out of 100%)

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Implementation of the ToT Course

Workshop Model

Opening → **Mini-Lesson** → **Work time** → **Debriefing**

**Toolkit
(IO3 How to Get WELDONE)**

Set of best practices, exercises, welding techniques, warm-ups, video materials, ideas, tips for workshops and much more

**Assessment Methods
(IO4 WELDONE
Assessment Methods)**

Set of formative and summative assessment tools, based on the following alternative approaches:

- a. Paper/online quizzes,
- b. Product-oriented Projects,
- c. Process oriented Projects,
- d. Interviews,
- e. Writing,
- f. Art,
- g. Ditch the numbers.



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At what level having WELDONE ToT Course Curriculum implemented within EWF Qualification System would be important for your professional development as teachers/trainers?

In your opinion, what are the advantages of this ToT Course?



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<https://www.linkedin.com/showcase/weldone-boosting-innovation-in-welding-training>



[/YOUTUBE.COM/CHANNEL/UCYPTY0Z5UQMY_OVACE94JMA](https://www.youtube.com/channel/UCYPTY0Z5UQMY_OVACE94JMA)



Digitalization & innovation of training delivery across Europe

THANK YOU!

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