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UNIT 3: Digitalization strategy for VET providers in EU Member States'

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Learning Objectives:

- To inform about the current situation on digital transformation and digitalization strategy for VET providers in EU Member States'

- To up-skill on policy and politics on digitalization strategy for VET providers in EU Member States'

- To improve understanding on digital education and digitalization strategy for VET providers in EU Member States'

Digital transformation of education and work

- Education has been extremely affected by the Covid-19 pandemic, with almost all countries temporarily closing their schools in 2020. After the first stage of the pandemic, in which national governments focused on guaranteeing the academic year's continuity, key international organizations emphasized the need to adopt structural policy reforms to face the challenges posed by the crisis (Zancajo et al, 2022).

- The COVID-19 pandemic and ongoing digitalization of the world of education and work have fundamentally changed the global jobs and skills landscape. The reskilling, upskilling, and redeployment of the workforce will define the "new normal" in future work. Therefore, education and training must focus on this transformation to cope with the need for new skills (Yang et al., 2023).

- To fully utilize the inherent benefits of digital transformation for economic growth and social improvement, a highly trained skilled workforce with the skills and competencies demanded by the workplace is essential (Caruncho, 2022).

- By 2025, 50% of all employees will need reskilling, and 40% of current workers are expected to update their core skills in the next five years, according to the World Economic Forum's survey study (World Economic Forum, 2020).

- Based on the theory of skill-biased technological change, digitalization has caused employment to grow faster in both low-skill, and high-skill occupations and to decline in middle-skill occupations (Berger et al., 2016).

How do you understand the term 'digital education'?

Activity 1: Express yourself

Digital Education - What is it?

"Digital education is the innovative use of digital tools and technologies during teaching and learning, and is often referred to as Technology Enhanced Learning (TEL) or e-Learning. Exploring the use of digital technologies gives educators the opportunity to design engaging learning opportunities in the courses they teach, and these can take the form of blended or fully online courses and programmes."

—(University of Edinburgh)

Activity 2:

Answer the following questions which you will find via Slido:

1. **Have you performed any type of education, e.g., seminars, conferences, etc. via digital tools?** (You answer the second question only if your answer of the first question will be YES.)

2. **How would you describe your experience on digital education with three words?**

Directions:
- The activity is via Slido: Quiz Maker – Host Interactive Live Quizzes Online | Slido

- Educators can register to Slido and add the above questions for students/learners to answer

# "Work 4.0" – The digital transformation of the world of work
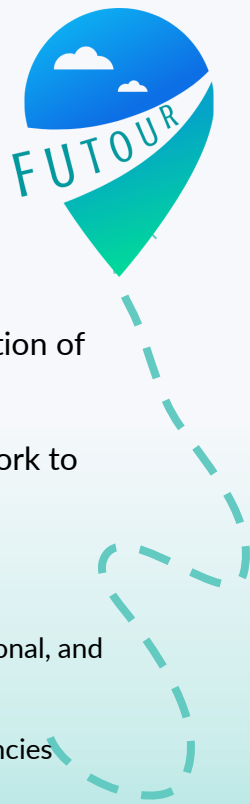
- Continuous digitalization promotes so-called "Work 4.0", which also denotes the digital transformation of the world of work (Berger et al., 2016).

- "Work 4.0" refers to future perspectives, scenarios, and opportunities for reshaping the world of work to benefit humankind and advance the digital economy (Berger et al., 2016).

- The effect of digitalization on the world of work is two-sided:

  - ✓ On the one hand, technology takes over those labor-intensive work tasks that are physical, manual, and conventional, and need a low level of skills and qualifications (Berger et al., 2016; Drahokoupil and Piasna, 2017).

  - ✓ On the other hand, the creation of new work and the expansion of existing jobs require higher levels of competencies (Yang et al., 2023).

- Schumpeter (1942) described this phenomenon as "creative destruction", meaning that emerging technologies destroy existing work and create brand-new ones simultaneously.

- Digitalization, especially the development of the "gig economy" or "platform economy", is changing the way people work and communicate and the environment in which they work (Drahokoupil and Piasna, 2017).

What is EU Doing?

- **The aim of the European Union** is to boost the growth of a highly efficient digital education system in Europe, with a focus on improving the digital competences and skills of its citizens for a successful digital transition.
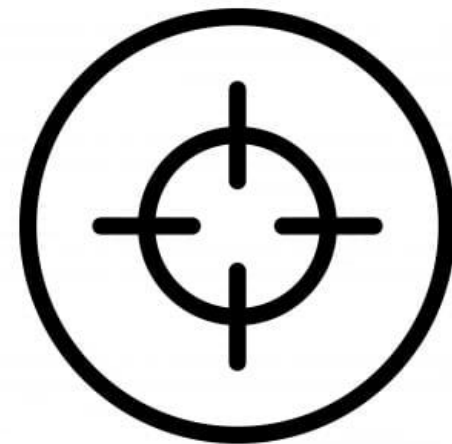
Why is Digital Education Important?

- Digital competences and skills are essential to:
    - Provide people an equal chance to thrive in life,
    - Find employment
    - Be an engaged citizen.

- Having digital competences and skills and ensuring the availability of digital infrastructure and equipment have become all the more relevant since the outbreak of the COVID-19 pandemic.

- Virtually all future learning and jobs will require some level of digital competences and skills.

- Ensuring equality during the digital transition of education and society is vital.

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Activity 3: Where and How are you performing your digital competences and skills?

Activity 3: Express yourself

What is The EU Digital Education Goal?

- The Council of the EU has established the subsequent EU-level goals for digital education, within the framework of the European Education Area's strategic plan for the years 2021-2030.

E.U. Digital Education Action Plan (2021-2027)

The Digital Education Action Plan (2021-2027) is a renewed European Union (EU) policy initiative that:

- Sets out a common vision of high-quality, inclusive and accessible digital education in Europe and
- Aims to support the adaptation of the education and training systems of Member States to the digital age.

It is a call for greater cooperation at European level on digital education to address the challenges and opportunities of the COVID-19 pandemic, and to present opportunities for the **education and training community**

Areas of Contribution of Digital Educational Plan

A Europe fit for the Digital Age

Next Generation EU
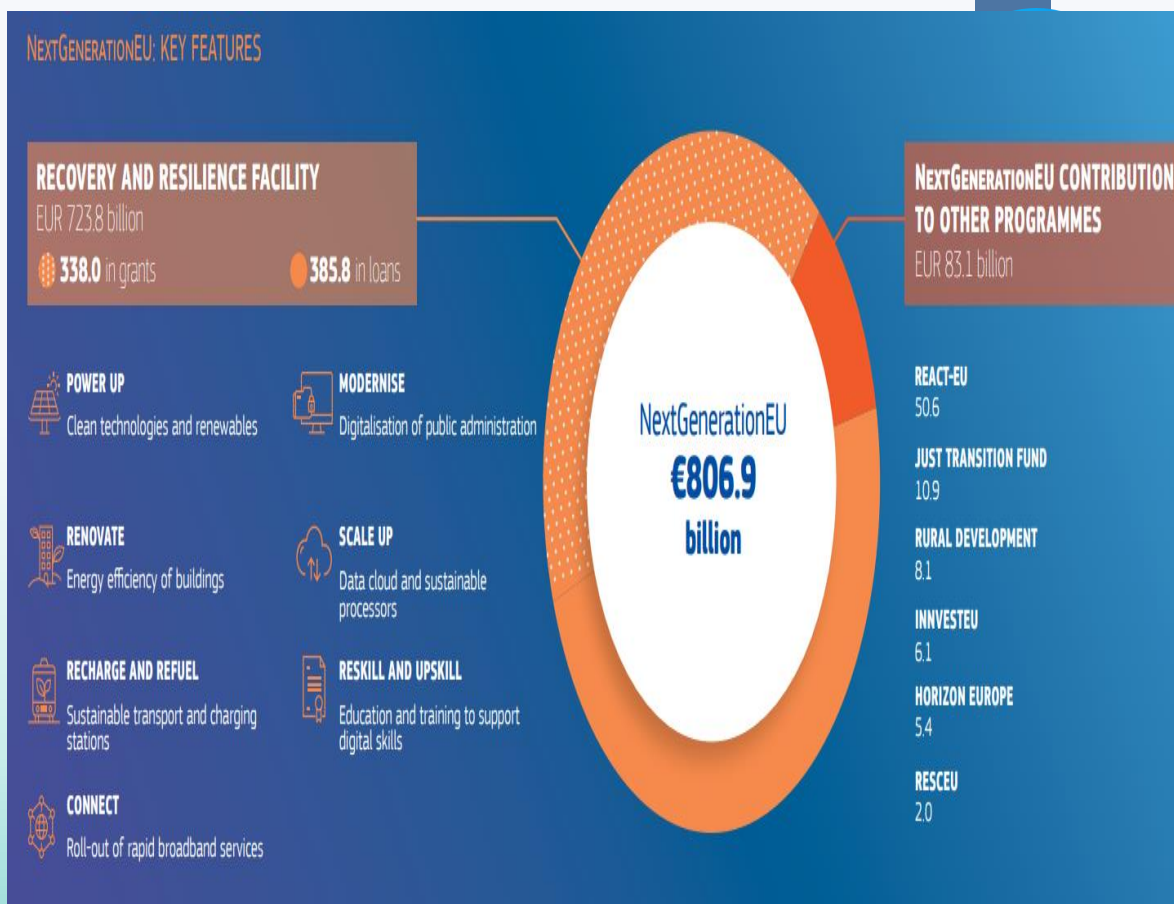
Recovery and Resilience Facility

A Europe fit for the Digital Age

- The EU's digital strategy aims to make this transformation work for people and businesses, while helping to achieve its target of a climate-neutral Europe by 2050.

- The Commission is determined to make this Europe's "Digital Decade". Europe must now strengthen its digital sovereignty and set standards, rather than following those of others – with a clear focus on data, technology, and infrastructure.

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NextGenerationEU

- An investment of €806.9 billion/+,

- A portion of that amount will support fair climate and digital transitions, via the Just Transition Fund and the Digital Europe Programme

NextGenerationEU: Key Features

RECOVERY AND RESILIENCE FACILITY
EUR 723.8 billion
- 338.0 in grants
- 385.8 in loans

POWER UP
Clean technologies and renewables

RENOVATE
Energy efficiency of buildings

RECHARGE AND REFUEL
Sustainable transport and charging stations

CONNECT
Roll-out of rapid broadband services

MODERNISE
Digitalisation of public administration

SCALE UP
Data cloud and sustainable processors

RESKILL AND UPSKILL
Education and training to support digital skills

NextGenerationEU €806.9 billion

NextGenerationEU CONTRIBUTION TO OTHER PROGRAMMES
EUR 83.1 billion

REACT-EU 50.6
JUST TRANSITION FUND 10.9
RURAL DEVELOPMENT 8.1
INNVESTEU 6.1
HORIZON EUROPE 5.4
RESCEU 2.0

European Commission, Directorate-General for Budget, *The EU's 2021-2027 long-term budget and NextGenerationEU : facts and figures*, Publications Office of the European Union, 2021, **https://data.europa.eu/doi/10.2761/808559**

The Recovery and Resilience Facility

- As part of a wide-ranging response, the aim of the Recovery and Resilience Facility is to mitigate the economic and social impact of the coronavirus pandemic and make European economies and societies more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions.

- The Facility is structured around six pillars:

Green transition

Digital transformation

Smart, sustainable and inclusive growth

Social & territorial cohesion

Health, and economic, social and institutional resilience

Policies for next generation

The actions of the Digital Education Action Plan

Digital Education Action Plan – Action 1

VET and digitalization

- The COVID-19 pandemic has posed major challenges for the education and training systems of the EU member states, showing clearly that digital participation, education mobility and the digital transformation of VET are critical issues that need to be resolved (eddie-erasmus.eu).

- Vocational education and training (VET), especially the dual-system VET, has been regarded as one of the pillars of the EU skill formation system and a driving force in the success and competitiveness of the EU economy (Wolter and Kerst, 2015).

- Occupational profiles and qualification requirements (e.g., skills and competencies) are changing with the digitization of the workplace, which has far-reaching effects on VET. Therefore, the reform and modernization of VET are crucial for training high-qualified skilled talents required by the digitalized workplace (Esser, 2019).

Regarding VET Providers the EU

Developing 25 Erasmus+ Teacher Academies

Creating European guidance

boosting the number and quality of mobility periods

Promoting the Digital Transformation of VET through Comprehensive Strategies

- Driven by the digital transformation of the world of work and the modernization of VET, digital transformation has become an inevitable trend and an important strategy for the sustainable development of VET for the future. As a result, multiple strategies have been employed to drive the digital transformation of VET, such as:

1. Supporting VET digital transformation through educational policy,
2. Supporting the digital media application in VET through special programs, and
3. Supporting VET digital transformation through research (Yang et al., 2023).

I. Supporting VET digital transformation through educational policy

- Educational policy is a significant tool for the government to plan and update the development directions, priorities, and reform measures of the different types of education given their specific backgrounds (Yang et al., 2023).

- To modernize the European VET, a strong cross-border collaboration is necessary among the member States and the institutions responsible for the national education and training systems (eddie-erasmus.eu).

- The modernization should tackle several aspects such as improving employability, developing a strong VET system at university level (ensuring equivalence between vocational and academic education and facilitating the transfer from one system to another), harmonizing standards and functions at European level (eddie-erasmus.eu).

- To assist VET in overcoming new challenges and move towards "VET 4.0", the federal and state governments of the EU have issued a series of reform policies (Yang et al., 2023):

E. g., in 2016, BMBF launched the "education initiative for the digital knowledge society", which put forward the VET 4.0 initiative to modernize occupational profiles and promote the progress of German VET's digital transformation.

E. g., KMK launched "vocational school 4.0—further development of the innovative strength and integration performance of vocational schools in Germany in the coming decade" in 2017 to depict the future blueprint for German vocational schools in the digital age.

E. g., BMBF and BMWi jointly launched the first national skills strategy in Germany's history in 2019 to address the challenges of continuing VET posed in the digital era and establish the reform and innovation framework for continuing VET from ten action fields (Yang et al., 2023).

2. Supporting the digital media application in VET through special programs

- The BMBF's "digital media in vocational training" program has been funding initial and continuing VET in the use of new digital media. The funding program focuses on the improvement of VET's digital infrastructure, digital education resources, and teachers' and trainers' digital media skills.

- As well, BMBF launched the Special Program on Digitalization to help inter-company training centers modernize their training programs and help SMEs provide up-to-date training, which was expanded to provide new funding possibilities and was extended until the end of 2023.

- Nearly 40,000 new items had been purchased at more than 200 training centers by the middle of 2020, which has already been used by many inter-company training centers to update their equipment (Yang et al., 2023).

3. Supporting VET digital transformation through research

- For example, to provide policy suggestions and action recommendations for VET's digital transformation, thus provide reference for clarifying the direction of vocational education reform and updating training regulations in the digital age (Yang et al., 2023).

- Students from academia and vocational school should experience Europe as a place of cross-border learning and working (eddie-erasmus.eu).

Further Considerations/Implecations:

- Learning Pace according to professional requirements
- Digital development pace according to area/location
- Demographic factors of learners and educators might effect learning process and procedures
- New technologies and tools constantly developing

Summary:

- Recent events had a profound impact on education worldwide, leading to temporary school closures in almost all countries in 2020. Initially, national governments focused on ensuring the continuity of the academic year. However, as the pandemic progressed, international organizations stressed the need for structural policy reforms to address the challenges posed by the crisis.
- Digital competences and skills have become increasingly relevant since the outbreak of the pandemic. They are essential for providing equal opportunities, finding employment, and being an engaged citizen in today's digital age. The Council of the EU has established EU-level goals for digital education through the Digital Education Action Plan (2021-2027), which aims to support the adaptation of education and training systems to the digital age.

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THANKS!

Do you have any questions?