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7th UPI International Technical and Vocational
Education and Training Conference

Digitalization in TVET



The International Centre for Technical and Vocational Education and Training

- is UNESCO's **Specialized Centre for TVET** based at the UN Campus in Bonn;
- **contributes** to the fulfilment of the SDGs and the UNESCO TVET strategy;
- **coordinates** the global [UNEVOC Network](#) of TVET institutions across the world



United Nations
Educational, Scientific and
Cultural Organization

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The basic fact is that technology eliminate jobs, not work... technological changes have caused and will continue to cause displacement throughout the economy.

United States Commission on Technology,
Automation, and Economic Progress

<https://files.eric.ed.gov/fulltext/ED023803.pdf>

CONTEXT

From automation...

>50% of jobs in developed countries and >60% in developing ones may disappear in about 20 years, considering the already existing technologies

- Occupations very **well defined** where human subjectivity to decide is not necessary

X

- Occupations carried out in **loosely structured environments** and that involve dealing with people

... to Industry 4.0

FREY, C. B.; OSBORNE, M. A. The future of employment: how susceptible are jobs to computerisation? Technological Forecasting and Social Change, v. 114, p. 254-280, 2017.

JEREMY, B.; BOWLES, J. The computerisation of European Jobs.

WORLD BANK GROUP. World development report 2016: digital dividends. World Bank Publications, 2016.



New Qualifications and Competencies The Three I's process

How can they be put into practice, ensuring future-oriented, attractive TVET career paths?

- **Identification** in an accurate and timely manner;
- **Integration** into appealing and flexible curricula and training regulations; and
- **Implementation** through innovative teaching and training approaches.

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Bridging line

Events to promote peer learning and exchange

- Regional conferences: European Conference, Asia-Europe Conference, Africa-Europe Conference
- Global conference: BILT Learning Forum

Innovation line

Joint development of knowledge products

- Development of publications, research analysis and scoping surveys;
- Document 'Innovation and Learning Practices'

Learning line

Support to institutions in implementing the innovation products

- Capacity-building tools (frameworks, guides, etc.)
- Sharing and learning events: Learning Labs



BILT project - New Qualifications and Competencies for Future-Oriented TVET publication



New Qualifications and Competencies for Future-Oriented TVET publication - Approach



New Qualifications and Competencies

A Multistakeholder Endeavour

New Qualifications and Competencies (NQC)	Micro-level Delivery e.g. TVET schools, companies, other TVET providers	Meso-level Advocacy e.g. BMO, trade unions, NGO	Macro-level Governance e.g. ministries, statutory bodies, etc.
Identification In an accurately and timely manner	Contributions of respective stakeholders to continuously maintain a responsive and agile TVET system, keep it relevant for the economy and to make people capable and resilient to tackle current and future challenges in their working and private lives.		
Integration Into appealing and flexible curricula and training regulations			
Implementation Though innovative teaching and learning approaches			

IDENTIFICATION

Game changing **technologies** and digital innovative approaches to the **identification** of new qualifications and competencies

- Curate the available data and richness of information to identify and understand the need for NQCs.
- Strength the culture of public-private partnership
- Forecast can take long resulting in delayed reporting, which may be exacerbated in rigid systems

INTEGRATION

Incorporating **digital elements** into the curricula to make them more **flexible**

- The implementation of individual learning pathways requires flawless **TVET EMIS management**
- **Recognition of digital credentials** across borders still limited both in scale and scope

New Qualifications and Competencies for Future-Oriented TVET publication

IMPLEMENTATION

Digital technologies changing the way teaching and learning happens in TVET

- The cost of **adapting infrastructure** - improve connectivity and equipment
- **TVET lecturers** require a specialized set of competencies - professionals who bridge education and the world of work,
- Practical **nature of TVET** itself can be challenging to translate into remote contexts

FORWARD LOOKING

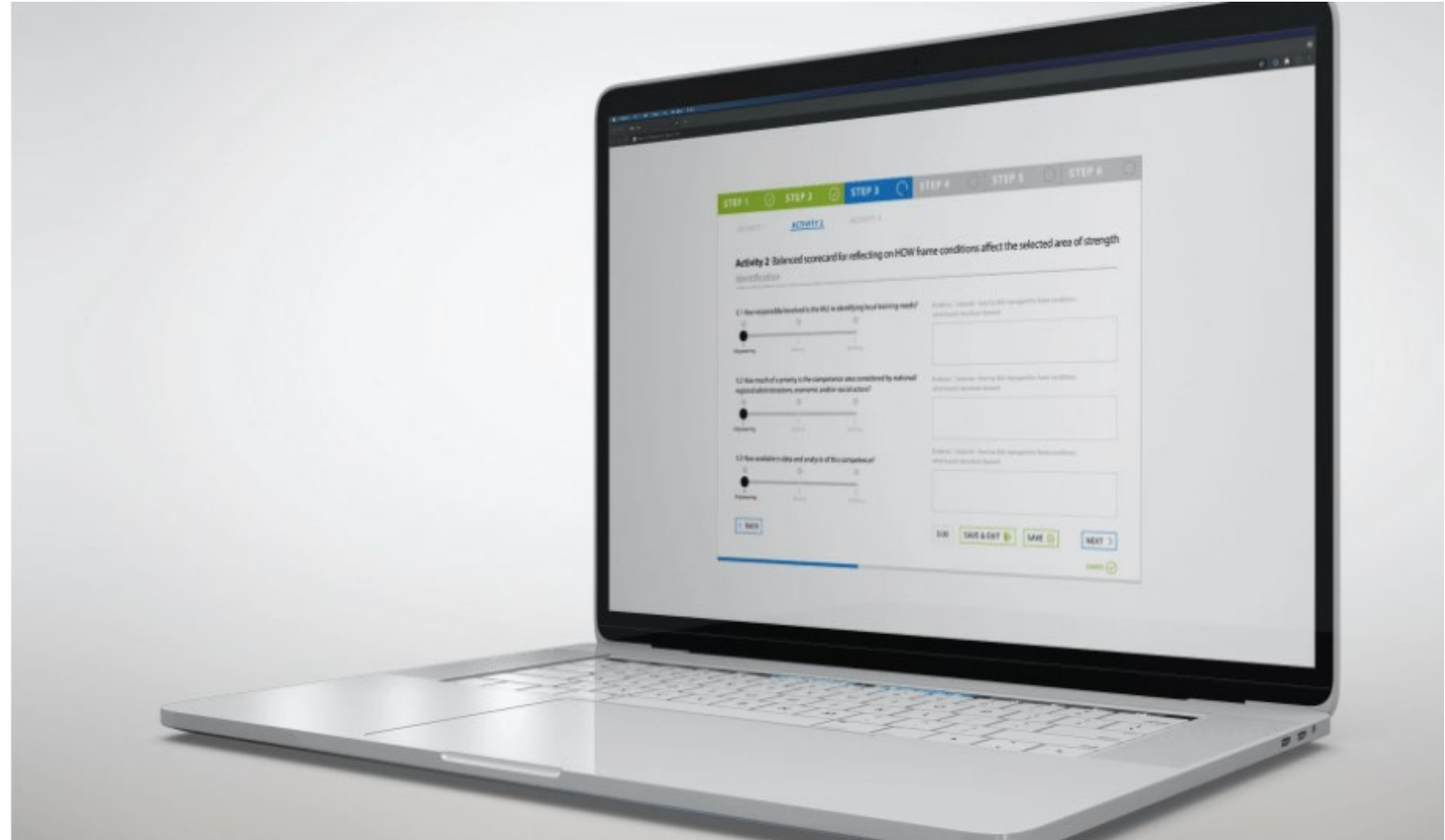
The **nature of the work** that **will change** - we must focus on tasks that computers cannot do

The **ability to provide a “line of sight”** between supply (from TVET institutions) and demand (from industry and society) is becoming increasingly more feasible and essential

Lifelong learning must become the **practice of every stakeholder** in the skills ecosystem

NQC Self-reflection tool

- It is based on the findings from the NQC publication
- It aims to stimulate TVET providers to **reflect** on their preparedness to **contribute** to the **Three I's process**
- It comprises **tangible outputs** to improve their performance.



Thank you

Learn more: www.unevoc.unesco.org

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