

Virtual International Conference and Workshops

## **“Digitalization and TVET” Requirements and Approaches for Competence Development of TVET Personnel (managing staff and teaching staff) in International and Development Cooperation**

jointly organized by GIZ TVET Academy / UNEVOC Centre Magdeburg, ADB Education Group and  
Swiss Federal University for Vocational Education and Training

### **Agenda**

#### **WORKSHOPS**

19th October 2021

08:00 – 11:45 GMT+2 (Amsterdam, Berlin, Rome)

Moderation: Ms. Ulrike Schmidt, GIZ TVET Academy

**08:00 – 08:45**

**Wrap-up/ Introduction**

**5'**

**Welcome and General Overview**

Ulrike Schmidt, GIZ TVET Academy

**10'**

**Key messages from Kick-off**

**Introduction of Workshop Moderators**

Dr. Harry Stolte, GIZ TVET Academy

**15'**

**Key Note: “Integration of digitalization into TVET Teacher Training”**

Prof. Frank Bünning, University Magdeburg

**15'**

**Introduction of Workshops in a panel session**

Moderators of Workshops

150'

**Workshop 1****Occupational Structures, Training Contents**

This session addresses the core issue of how to structure occupational profiles and standards considering the massive changes in the world of work due to new technologies and digitalization. Selected examples will reveal the processes and mechanisms behind the adaptation of curricula.

“Structural models of occupations and approach of adjustments in metal and electrical sector in alignment towards Digitalization / Industry 4.0 in Germany”

Dr. Gert Zinke, BIBB

“Approaches in adaptation of training programs towards requirements of Digitalization / Industry 4.0 in selected occupations in Vietnam”

Nguyen Khanh Cuong, College LILAMA II

“Designing of Blended Learning Concepts by combination of virtual knowledge transfer and practical skills development”

Holger Regber, Festo Didactic

“ADB experience in supporting client countries in aligning TVET curriculum to Industry Revolution 4.0 technologies”

Fook Yen Chong, ADB

“Changing technology – changing vocational education? Ongoing challenges for companies and vocational schools”

Christoph Metzler, Institute of German Economy

**Moderator**

Prof. Georg Spöttl, University Bremen

## **Workshop 2**

### **Digital Resources, Media, Tools, Platforms**

Digitalization and the discussion of digital resources, media, tools and platforms belong closely together. Chances are that the challenge posed by digitization can partly be solved by creating those resources and making them available. This session will provide you with insights into good practices of e-learning and virtual reality training projects.

“Development of a national eLearning platform – approach, concept and support by cTVET:

- Open source Digital Tool Management System
- MS Office 365 Education”

Lukas Dietrich, Advisor, GIZ, cTVET Mongolia

“(Digital) Capacity Building in the Perspective of ITC ILO – the triple helix”

Stefano Merante, ITC ILO, Turin

“Integration of AR/BIM Software in project-based training – examples from training in electrical / sanitary installation in South Africa”

Harald Fleischmann, CEO, Fosh-Learning

“Conceptual approaches in piloting and dissemination of e-learning in TVET colleges in Vietnam”

Christian Hoffmann, Advisor, GIZ Vietnam

“The Benefit of Digitalization in Technical Vocational Education and Training”

Christian Eismann, Christiani GmbH

“Digitalization of Training Institutions – a multi-level approach from the Jordanian Water Sector”

Dirk Winkler, Program Director, GIZ Jordan

### **Moderator**

Hector Niehues-Jeuffroy, GIZ Sectoral Department TVET

### **Workshop 3**

#### **Training processes, didactical concepts, methods, co-operation mechanisms, multiple learning venues**

The creation of successful training processes depends on customized didactical concepts, methods of teaching and learning and cooperation of multiple TVET stakeholders. This session puts quality development in the center and seeks to find answers and examples on how to shape TVET in order to address competence requirements that result from digitalization.

“Remote Teaching & Learning of TVET Lecturers: Approach to ICT upskilling, outreach, challenges and potentials”

Gerda Magnus, Department of Higher Education and Training (DHET) South Africa

“The certified “National e-Trainer in TVET” in Mongolia – Concept of the training approach”

Tsetseg-Ulzii Yadamsuren, Technical expert eLearning cTVET Mongolia

“Elements of an Eco-System for Digital Transformation in TVET Vietnam and Approaches for Implementation”

Pham Xuan Hoan, Advisor, GIZ Vietnam

Digitalization of Vocational Training – facing the challenge and taking the opportunities

Kevin Wäschebach, Christiani GmbH

“Digital teaching and learning specialist: a comprehensive modular training portfolio on digital teaching and learning in TVET”

Stephanie Schenk, GIZ TVET Academy

“E-Learning Empowerment Training” Sri Lanka

Tatjana Rest, Advisor, GIZ Sri Lanka

#### **Moderator**

Ulrike Schmidt, GIZ TVET Academy

11:15 – 11:45

Conclusions  
Recommendations

## **Objectives**

- Derivation of impacts in competence requirements of workforce in economy, production, work and business processes from digitalisation
- Derivation of consequences in TVET teaching and management processes because of the changes in work and work organization caused by digitalization
- Clarification of competence requirements of teachers and trainers because of the changes in industry driven by digitalization
- Development of ideas and proposals for Competence and Capacity Development for TVET personnel towards perspective (pre- and in-service) education and training of TVET teaching personnel

## **Audience / Target Group**

- Representatives / Staff of Development Agencies, Development Banks
- Stakeholder of TVET institutions, related organisations, authorities of partner countries
- Representatives of TVET projects
- Representatives of TVET teacher institutions
- Representatives of business sector
- Representatives from UNEVOC, ADB, ILO

## **Format / Structure**

- Online Conference (Kick Off)
- Parallel online workshops
- Concluding session

## **Expected Outcomes**

- Recommendations for development of TVET teacher training in a digitalized world of work - appropriate to the demand of the business sector
- Didactical concepts of TVET teaching in a digitalized world of work
- Materials for training and training concepts for the implementation of digitalization in TVET
- Case descriptions for best practice approaches and models of pre- and in-service TVET teacher training by consideration of digitalization
- Recommendations for pre- and in-service training approaches for TVET teachers
- Tool Box(es), Materials
- Recommendations for strategies for the support of lower developed countries in integration of digitalization in TVET and skills development

## **Guiding Questions for the Group Work**

### **Overall Questions for Each Working Group**

As for the concrete planning of the direction of each workshop out of three, a short description of each workshop exist and the core questions should ensure that the input of the workshops corresponds to the targets of the conference.

For framing the discussion in the workshops after the input of the presenters, some overall guidelines / questions for the moderators will be described below. These guidelines/ questions should help to define relevant outcome:

1. What has to be done in training centers to ensure access to “digitalization topics” in the specific lessons?
2. How must the management be prepared for the new requirements? What are the core activities the management should fulfill?
3. How should teachers be prepared for the paradigm change? What are the main areas teachers have to be qualified for?
4. Which modes of learning (didactical approaches) for the preparation for digitalization should be supported? What is likely to become “good practice” and why?

### **Workshop Session (1)**

#### **Occupational Structures, Training Contents**

This session addresses core issues in vocational education. What needs to be clarified is how occupational profiles are to be structured in view to the massive changes in the world of work by digitalization. Questions that arise are:

- a. Is it a question of adjusting occupations and competences solely to technical developments and qualifying for them?
- b. What role does the change in work and work organization play regarding changes in occupational structures and training contents?
- c. Would it be advantageous to choose next to a focus on technology a focus on work processes on the design of the foundation of qualification and competence development?

### **Workshop Session (2)**

#### **Digital Resources, Media, Tools, Platforms**

Digitalization and the discussion of digital resources, media, tools and platforms belong closely together. Numerous statements go in the direction that the challenge posed by digitization can be solved by making resources, media, tools and platforms available.

The questions that arise in this context are:

- a. What approach in resources, media, tools and platforms is appropriate for promoting competencies in TVET in the direction of digitalization?
- b. How can skilled workers be qualified for digitalized production facilities and networked systems supported by what kind of digital resources?
- c. How should the increased complexity of networked systems become the subject of didactical appropriate qualification and competence development?

### **Workshop Session (3)**

#### **Training processes, didactical concepts, methods, co-operation mechanisms, multiple learning venues**

How to shape didactical concepts and training processes, methods of learning, cooperation and other approaches to learning and training in TVET addressing competence requirements resulting from digitalization is a deeply discussed issue

without clear answers. The shaping of learning processes depends on the didactical concepts and methods of learning. Answers can be given to further issues of quality development in a learning and training situation. Questions which have to be considered are:

- a. How should learning processes be designed to develop competences that are necessary for dealing with digitalization?
- b. How should didactic concepts be designed to promote learning for a complex, digitalized working world?
- c. What qualification profile do TVET teachers need in order to be able to particularly promote learning with a view to digitalization?

## **Session on Final Conclusion / Presentation of Recommendations**

(mid November - tentative)