

# What's on the horizon? Green & digital TVET trends in Africa, Asia-Pacific and Europe

A comparative preliminary analysis on the trends in new qualifications and competencies



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BILT Bridging Event  
22 June 2022

Trends mapping study

## Digital skills development in TVET teacher training



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## Research study

### **BILT team explored the latest trends in new qualifications and competencies in TVET in the three regions**

- A background research carried out in Europe in 2019, and published in 2020; and an updated review in 2022
- A literature review, questionnaire survey and stakeholder interviews were conducted in Africa and Asia in 2021
  - Identification, integration and implementation of new qualifications and competencies at national and regional levels among macro, meso and micro-level institutions
  - Effects of greening and digitalisation on TVET systems and the demand for new skills
  - Identification, integration and implementation of NQCs in digitalisation and greening skills required in the two regions
- (BLIT research team: Basheerhamad Shadrach, Nikhil Raj, Stephanie Allais, Yael Shalem, Carmel Marock, Presha Ramsarup, Kate Mlauzi, Boitumelo Khunou and Wilma Van Staaden from the University of the Witwatersrand, South Africa, Vera Hark, BIBB; Wilson Lima Junior, UNESCO-UNEVOC ; and, Alexandra Filippova, UNESCO-UNEVOC)

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# What's on the horizon? Green & digital TVET trends in Africa, Asia-Pacific and Europe

## Geographic context: variance and similarities

Parameters	Africa	Asia	Europe
<b>Demographics</b>	<ul style="list-style-type: none"> <li>• Young population and getting younger!</li> </ul>	<ul style="list-style-type: none"> <li>• Young and the ageing</li> <li>• 4.64B people of 7.96B</li> </ul>	<ul style="list-style-type: none"> <li>• Predominantly ageing</li> <li>• 4% of world's population in 2070</li> </ul>
<b>Economy</b>	<ul style="list-style-type: none"> <li>• Resource-rich and growing</li> </ul>	<ul style="list-style-type: none"> <li>• 30% of world's GDP</li> </ul>	<ul style="list-style-type: none"> <li>• Single market</li> </ul>
<b>Unemployment</b>	<ul style="list-style-type: none"> <li>• 15 million entrants every year against 3 million jobs</li> </ul>	<ul style="list-style-type: none"> <li>• 160 million youth as NEET</li> <li>• COVID-19 impact has been high</li> </ul>	<ul style="list-style-type: none"> <li>• Youth unemployment persists</li> <li>• More graduates in jobs</li> </ul>
<b>Occupation</b>	<ul style="list-style-type: none"> <li>• 88.5% in Informal jobs</li> <li>• A third underemployed</li> </ul>	<ul style="list-style-type: none"> <li>• 2/3<sup>rd</sup> informal employment</li> <li>• 1.3B of 2B workers</li> </ul>	<ul style="list-style-type: none"> <li>• Highly skilled workers</li> <li>• Skilled migrants</li> </ul>
<b>TVET</b>	<ul style="list-style-type: none"> <li>• Small, weak and low in status</li> <li>• Weak link with industries</li> </ul>	<ul style="list-style-type: none"> <li>• Perception among parents low</li> <li>• gender imbalance</li> </ul>	<ul style="list-style-type: none"> <li>• Fairly mainstreamed</li> <li>• Tertiary education required for decent jobs</li> </ul>

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## Research study



**Identification of  
New Qualifications and Competencies**

# Identification of new qualifications and competencies

## Africa

- LMIS measures formal employment
- Lack of data on employment trends by occupation, sector, geography and gender
- Investments and capacity building required in skills anticipation, forecast and in labour market information systems
- Lack of data on job market in the informal sector

## Asia

- Continent/region-wide LMIS is nearly impossible
- Wider stakeholder involvement is required to identify new skills and competences
- Needs of informal sector require consideration
- Governmental capacity in skills identification and forecast is to be enhanced
- Inter-agency government coordination with single office responsible for LMIS is desired

## Europe

- Europe-wide approach is emerging
- 2020 skills agenda recognises skills intelligence
- Certain existing skills are yet to be identified and classified
- Transversal skills, aptitudes and non-routine competencies are recognised
- European green deal and e-Competency framework lay foundation across the continent

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**Integration of  
New Qualifications and Competencies**

# Integration of new qualifications and competencies

## Africa

- National Qualification Frameworks govern integration
- Limited scope for contextualisation for local market needs
- Lack of formalised labour market structures impedes standardisation
- Stakeholder involvement is required
- Skills recognition (continent-wide) required

## Asia

- Shift in industrial focus and the developments of IR 4.0 recognise 21st Century competencies
- While new competencies are developed as new courses, many competences are embedded in existing curricula
- Top-down approach of integrating competencies excludes many stakeholders
- Integration processes require strengthening through institutional capacity building

## Europe

- Mother tongue and foreign language competencies sit alongside 'soft', 'basic', 'core' skills
- A third of nations do not have national strategies for key skills
- Half of the nations do not have strategies for foreign language skills
- More awareness and training required to embed transversal competencies in current courses
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**Implementation of  
New Qualifications and Competencies**

# Implementation of new qualifications and competencies

## Africa

- Highly fragmented delivery structures
- TVET teachers lack training and experience in industry
- TVET stereotype courses make it less attractive for girls
- Delivery institutions are not able to report on employment outcomes of their learners
- Need for updated pre-service training and CPD for TVET teachers and trainers

## Asia

- Further investment in workshop facilities, tools, equipment, and ICT facilities
- Lack of institutional capacity to embrace and implement change
- Partnership with industries circumvent financial and infrastructural constraints
- Learner centred approaches preferred in experiential learning, blended learning, game-based learning, embodied learning, social learning and collaborative learning at delivery institutions, workplaces, in the community or online.

## Europe

- Not all trainers and teachers find it easy to embrace change
- At the same time, many teachers are willing to be co-creators of learning pathways for learners
- Teaching strategies need to adjust and so do the competencies of teachers if they are to empower 21st-century learners

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**Greening of TVET and  
New Qualifications and Competencies**

# Effects of greening on new qualifications and competencies

## Africa

- By 2030, up to 118 million extremely poor people on the continent of Africa will be hit harder by adverse impacts of climate change
- Seven of the ten countries most vulnerable to climate change are in Africa
- There is no taxonomy for green skills in Africa yet
- The informal sector holds the key to supplying the green workforce

## Asia

- According to the International Labour Organization, up to 14.2 million net green jobs can be achieved by 2030
- The Asia-Pacific hires fewer professionals for green jobs than the United States and Europe, mainly due to the lack of skilled workers
- Identifying competencies for sustainable development requires community consultation
- TVET institutions need to develop, design, and teach green-embedded content and use green-friendly technologies in their training

## Europe

- Green investment in 70 per cent of companies are delayed, reportedly due to lack of people with right skills
- TVET institutions are yet to prepare well for the green economy
- Improved policy coordination and social dialogue is needed to integrate green skills into wider skills development policy

# What's on the horizon? Green & digital TVET trends in Africa, Asia-Pacific and Europe

## Research study



**Digitalisation of TVET and  
New Qualifications and Competencies**

# Effects of digitalisation on new qualifications and competencies

## Africa

- More than 80 per cent of the African population has a mobile phone, driving the digital economy, accounting for more than 5 per cent of GDP
- Only 47 percentage of population accesses the Internet
- Digitalization is a policy priority, but its introduction in workplaces is uneven and is limited in TVET
- Small-scale technologies have the potential to be transformative sources of employment in developing African economies

## Asia

- Between 2019 and 2021 internet use in the Asia-Pacific grew by 24 per cent, taking the total number of Internet users to 1.2 billion
- 45 per cent of Asia-Pacific's population still does not have access due to lack of affordability, literacy and skills
- A significant gender gap as well as a rural-urban divide persists in the Asia-Pacific
- Progress in integrating digitalization in TVET is uneven

## Europe

- Digital access increased by 20 per cent in the last decade, Europe's household internet access rate has risen to 92 per cent in 2021
- Demand comes from many stakeholders, employers, teachers, trainers and learners
- 4 out of 10 adults and every third person who works in Europe lack basic digital skills
- Low representation of women in tech-related professions and studies, with only 1 in 6 ICT specialists and 1 in 3 STEM graduates being women
- Technology can be used to dismantle borders

# Thank you

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