



Digitalisation in TVET

Advisory service

The challenge

The digitalisation of economic and innovation processes is accelerating worldwide, which is stepping up the pressure on training systems to adapt. In many cases, companies lack the well-trained specialists they need to ensure that they remain competitive, especially with regard to the future of work. New professions are emerging and the competences required in existing job and training profiles are changing. Besides imparting specific expertise and competences for new technologies, cognitive and social competences are increasingly called for. In view of digitalisation, technical and vocational education and training (TVET) is facing a range of challenges: There is a lack of initial and continuing vocational education and training courses focused on digital competence and geared to the needs on the labour market. Girls and women in particular often have no opportunity to acquire digital competences, which leads to a digital gender gap. In many partner countries the digital infrastructure is insufficient, there is no legal framework or good TVET management or teachers and trainers with digital competences.

Our approach

We work at multiple levels, thus enabling holistic strategy and design processes. Our approach entails comprehensive capacity development in government, private and civil society institutions and therefore extends beyond pure technology transfer:

System level:

- » All social groups, especially those that are disadvantaged, obtain better access to needs-based TVET.
- » The TVET system and the labour market are becoming more permeable and offer more opportunities for development and advancement.

- » The needs of companies and public institutions for experts in the future are realistically assessed and initial and continuing vocational education and training geared to meeting these requirements.
- » Competences profiles and development opportunities for TVET are defined and applied in practice.

Steering level:

- » The technical and organisational capacities of learning venues are adapted to meet local needs.
- » All actors involved in training rethink their roles and focus on the current challenges facing TVET. The framework required for adapting these roles is created.

Implementation level:

- » New learning forms are integrated in schools and companies. The competences and roles of teachers, trainers and trainees are being redefined.
- » The digital competences of teachers, trainers and trainees are strengthened and innovative forms of cooperation are being established with tech companies for this purpose.

Our services

We adapt our Digitalisation in TVET service offer to meet partner requirements. In terms of content, we focus on the following areas:

- » We increase the focus on needs orientation with regard to digitalisation through employment forecasts, industry screening and analyses of training professions.
- » We modernise occupational profiles and TVET curriculum, integrate new standard training elements and adapt courses to digitalisation content in the company.
- » We strengthen the development of digital competence at different levels by using digital learning formats in the classroom and integrate them in existing curricula.



- » We provide support for establishing locally adapted technical infrastructure to ensure that learning venues are equipped according to needs.
- » We build on the use of free learning and teaching materials with open licences, develop new learning media for TVET, develop teaching methods for their use and teach technical and digital media competences.
- » We promote the digitalisation of TVET management by establishing digital administrations and quality management systems.
- » We provide support with developing and expanding data-based and technology-based solutions such as information systems.
- » We provide support with developing new forms of digital certification and qualification comparability.
- » We develop national digitalisation strategies and guidelines to ensure the quality and didactic standards for digital approaches in TVET.

The benefits

GIZ offers innovative and tested approaches for counselling and for implementing measures on all aspects of 'Digitalisation in TVET'. As a partner, you will benefit from our experience, our cooperation with international organisations and companies and our networks in the partner countries. Internationally, Germany's TVET system is highly respected, as is its work in the areas of Industry 4.0, data protection and platform economies. Taken together, these factors help GIZ translate the challenges of digitalisation in TVET into opportunities for the future and, together with our partners, to work for a better, inclusive future for everyone.

An example from the field

In South Africa, most young people, especially women, lack good employment prospects in an increasingly digitalised economy. GIZ wants to contribute to solving this problem by improving qualifications. The Digital Skills for Jobs and Income in South Africa project commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) helps young South Africans acquire digital skills relevant to the employment market. The measures are partly funded by the G20 initiative #eSkills4Girls which aims to overcome the digital gender gap. This is why girls and young women are the primary participants in the project, in which they enhance their digital skills to facilitate their access to the South African labour market. To achieve this goal, the project supports, among others, four selected TVET schools in improving the quality of their training courses and the labour market orientation of their offer. Modules on the acquisition of employment-related digital competences are integrated into the training courses of both trainees and teacher and trainers. The project prepares today's and tomorrow's experts and managers for the digital transformation and the future of work.

Imprint

Published by:
Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

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GIZ is responsible for the content of this publication.

Eschborn 2022