



Dual TVET in Kenya

A Guide for TVET Institutions



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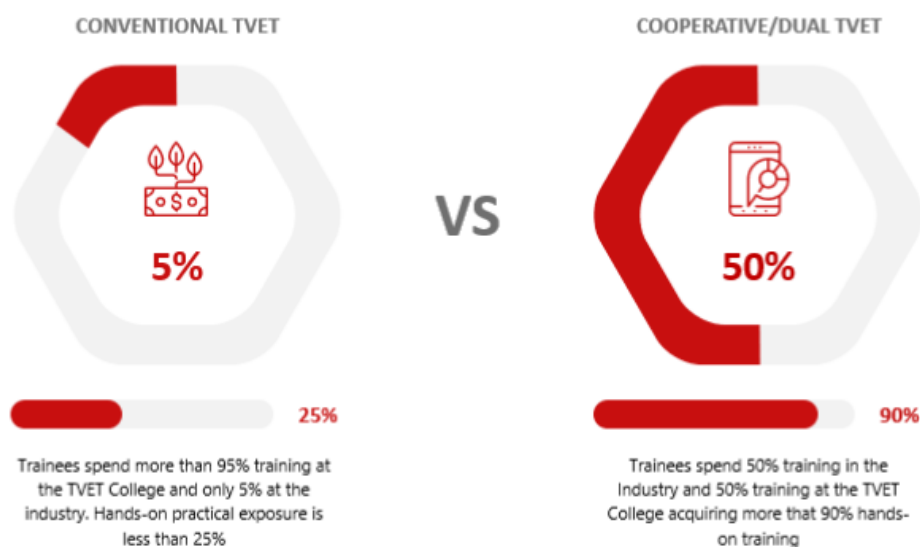
What is Dual TVET?

Dual TVET stands for Dual Technical and Vocational Education and Training. It is a TVET educational approach that combines theoretical classroom instruction with practical workplace training. The term "dual" refers to the parallel learning that takes place both in TVET College and in actual workplaces or industry settings.

In dual TVET, students acquire knowledge and skills through a combination of classroom-based learning and hands-on experience. They receive theoretical instruction in the classroom, where they learn the fundamental concepts and principles related to their chosen vocational field. Simultaneously, they engage in practical training within real work environments, allowing them to apply what they have learned and gain valuable practical skills.

The dual TVET approach aims to bridge the gap between education and the labor market by providing students with relevant, industry-specific skills and knowledge. It emphasizes the importance of both theoretical understanding and practical experience, preparing students for employment and enabling them to contribute effectively to the workforce in their chosen vocational fields.

COMPARING CONVENTIONAL TVET AND COOPERATIVE/DUAL TVET



Dual TVET in Kenya

Kenya like many other countries recognizes the important part that TVET plays in developing a competent and progressive workforce for economic development. Even though there have been other initiatives to pilot dual TVET in Kenya, a major leap was done in 2019 when the Ministry of Education through the State Department of TVET officially piloted dual TVET in 7 public TVET institutions in Kenya in a project

supported by the German Government. The institutions under the pilot phase are listed below together with their respective trade areas:

1. Nairobi TTI – Automotive Mechatronics level 6
2. Thika TTI – Automotive Body building level 6
3. Kiambu Institute of Science and Technology (KIST) – Industrial Mechatronics level 6
4. Bumbe TTI – Automotive Technician level 6
5. Kitale National Polytechnic – Agricultural Machinery Mechatronics level 5
6. Ramogi Institute of Advanced Technology (RIAT) – Refrigeration and Air conditioning level 5
7. Ekerubo Gietai TTI – Plant Technician level 5

The lessons learned from the pilot phase have now been consolidated and will be used to conduct a national roll out of dual TVET in Kenya

How Dual TVET works

Dual TVET (Technical and Vocational Education and Training) is a significant component of Kenya's efforts to develop a skilled and progressive workforce for economic development. In 2019, the Ministry of Education, through the State Department of TVET, initiated a major leap in dual TVET by piloting the program in seven public TVET institutions in Kenya. This pilot phase was supported by the German Government. The lessons learned from the pilot phase have now been consolidated and will be used to conduct a nationwide rollout of dual TVET in Kenya.

During dual TVET, students spend at least 50% of their training program duration in the industry, while the remaining time is dedicated to classroom education in the TVET college. This ensures that students acquire practical training and experience, preparing them effectively for the workforce. The specific ratio of industry training to school-based training may vary in different countries. For instance, in Germany, the typical ratio is 70:30.

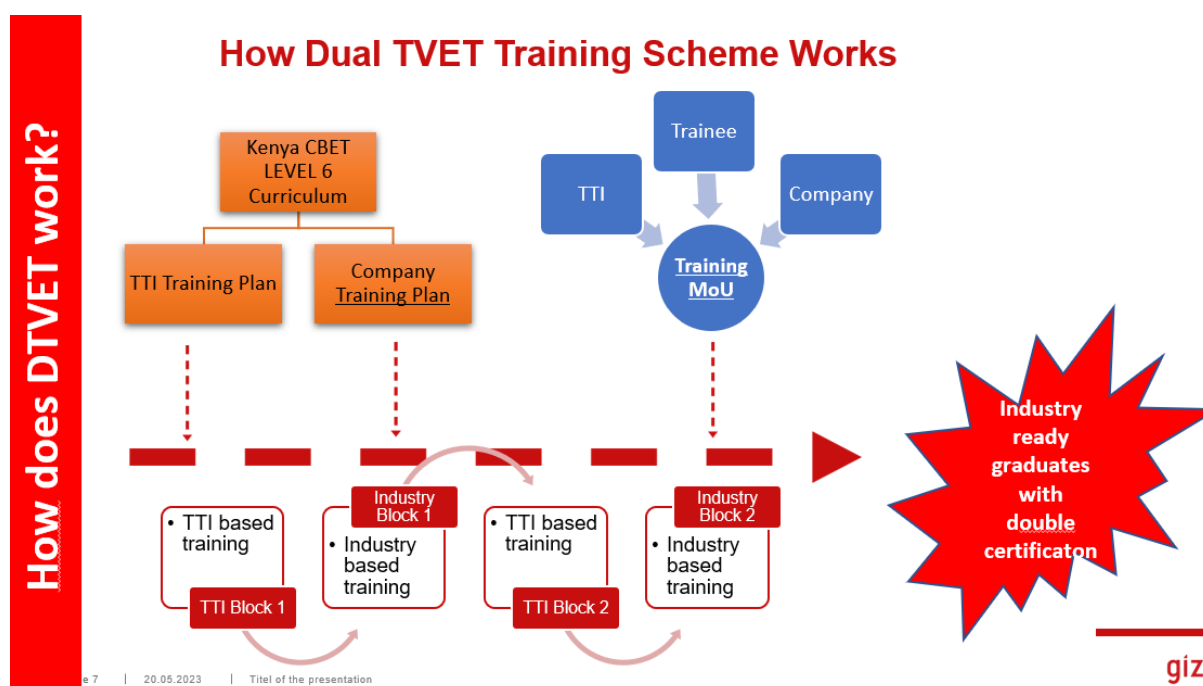
Different training models can be implemented in dual TVET:

1. **Block release model:** Under this model, students alternate between the TVET college and the industry in three-month intervals. For example, they may spend the first term in college, the second term in the industry, and so on until the training period is completed. Please note that the entire training duration will vary with the KNQA levels of training and will be determined and defined by the Kenya National Qualification Framework
2. **Day Release model:** In this model, students divide their time between the industry and the TVET college on different days of the week or for specific hours each day. For instance, they may attend college on Mondays and

Tuesdays and engage in industry training for the rest of the week. Alternatively, they can study at the college in the morning and receive practical training in the industry during the afternoon.

3. **Front loading model:** This model involves completing either the entire school-based training block or the industry training block before transitioning to the other. It is particularly suitable for shorter courses, such as a six-month program, where students can spend the first three months in college and the last three months in industry training

Below is an example of the block release model:



Note: The selection of the appropriate model depends on factors such as the type of vocation and the proximity of industries. It is crucial to discuss and agree upon the model with the respective industries before the program begins

Coordination of Dual TVET: To ensure effective implementation of dual TVET, the TVET college and participating companies need to establish a TVET-Industry Coordination Committee (TICC). The TICC serves as an overseeing body for dual TVET. During the committee's initial meeting, a chairperson and secretariat can be elected. The TVET institutions are well-positioned to serve as the secretariat and take the lead in organizing the meetings. Best practices suggest that TICC should meet at least three times a year, prior to each term or industry block, with additional ad hoc meetings as required. The meetings can be held at various venues, including alternating between company premises and the TVET college.

The agendas for TICC meetings encompass various aspects, including but not limited to:

1. Developing an industry-based training plan and school-based training plan: This involves reviewing the approved curriculum and breaking it down into competencies that can be implemented in the TVET college and the industry. It is crucial to ensure that the training in both settings complements each other.
2. Reflecting on the performance and conduct of students during the TVET or industry blocks.
3. Providing feedback on the curriculum and identifying any gaps or areas that require revision.
4. Facilitating communication between the trainers at the TVET college and those in the industry to share the extent of the content covered in the immediate training block.
5. Discussing and agreeing upon the rotation model for students in the industry. It is important to consider that not all industries may have the capacity to cover all competencies stipulated in the curriculum, which may necessitate a rotation model for students
6. Any other matters arising

Steps in Implementing Dual TVET

The implementation of dual TVET involves several important steps to ensure its successful execution. These steps include:

1. Planning and preparation
2. Onboarding of industries/companies
3. Student selection process
4. Dual TVET implementation
5. Course Completion and transition to the labour market

1. Planning and preparation

During the planning and preparation phase of implementing dual TVET, TVET institutions should consider the following key factors:

- i. **Identification of the Vocation Area:** TVET institutions need to carefully identify the appropriate courses within the college that can be effectively implemented in a dual format. It's important to note that not all courses can be adapted to a dual approach. Factors to consider include assessing the local environment surrounding the college and identifying the types of industries and key economic activities present. For instance, if there are a significant number of motor garages, tea factories, or sugar factories in the area, the institution may choose to implement automotive courses, plant mechanics course, electrical installation course etc. It is advisable to develop a matrix that maps these companies and the sectors of interest.

- ii. **Evaluation of Workshop Facilities:** During the identification process, the TVET college should assess whether there is a well-equipped workshop available for the chosen course within the college premises. This is crucial to ensure that students receive adequate practical training for the sessions that need to be covered within the TVET college itself. A properly equipped workshop enables students to gain hands-on experience and develop the necessary skills required in their chosen vocation within the TVET College.
- iii. **Availability of Qualified Trainers:** Another important consideration is the availability of enough qualified trainers to deliver the dual TVET program. The institution should ensure that there are instructors with the necessary expertise and experience in the selected vocational area. Adequate staffing and a competent team of trainers are essential for providing quality education and guidance to the students throughout their training.
- iv. **Clear Certification Process:** Having a clear certification process for the dual TVET course is crucial. The TVET institution should establish transparent guidelines and criteria for assessing the students' performance and awarding certifications upon completion of the program. This ensures that the qualifications obtained by the students are recognized and valued by employers in the industry.
- v. **Additional Factors:** In addition to the above considerations, the TVET institution should take into account any other relevant factors that may apply to the specific implementation of dual TVET. This could include local regulations or requirements, industry demands and trends, availability of resources, and any unique challenges or opportunities present in the local context.

By carefully considering these key factors, TVET institutions can effectively plan and prepare for the implementation of dual TVET programs, ensuring the alignment of vocational areas, facilities, trainers, certification processes, and other important elements necessary for a successful program.

2. Onboarding of Companies

Once the initial planning is complete companies will need to be identified and onboarded. This process is crucial for the successful implementation of the in-company training in dual TVET. The following key considerations can be applied:

Conduct Orientation Sessions for Companies: TVET institutions need to organize orientation sessions for the companies to familiarize them with the concept and workings of dual TVET, as well as clarify their roles and responsibilities. Orientation sessions can be conducted through individual visits to the companies or by inviting them to a breakfast meeting at a convenient venue within the TVET college. It's

important to be mindful of the busy schedules of company and industry staff, ensuring that the sessions are focused, concise, and productive.

During the orientation session, the TVET college should discuss the duration and design of the dual TVET approach, such as the rotation model, and seek agreement with the companies. At this stage, it is also essential to discuss the number of slots or positions the companies can offer for students, as this information is crucial for planning class sizes. Different industries may commit to varying numbers of students based on factors such as their size, priorities, presence of branches, and projected recruitment needs. These details should be thoroughly discussed during the onboarding process.

In-Company Trainers: Additionally, the TVET institution should consider the need for training in-company trainers as part of the implementation process. Providing support to companies in enhancing the skills of their trainers can contribute to the overall effectiveness of the in-company training. The project can assist with this by offering training programs and resources to develop the capabilities of in-company trainers during the implementation period.

Memorandum of Understanding: In some cases, it may be beneficial for the institution to sign a cooperation Memorandum of Understanding (MoU) with the onboarded companies. This agreement clarifies the roles and responsibilities of each party involved. However, it's important to note that some industries may be hesitant to sign such agreements due to concerns about committing to specific undertakings. They might prefer a more flexible approach where they can cooperate with the TVET college on an ad hoc basis. The college should analyze the circumstances and determine the most suitable approach for their industries. The ultimate goal is to establish a collaborative relationship with industries that ensures the provision of appropriate practical training for the students.

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3. Student selection process

The student selection process is a crucial step in ensuring that the dual program enrolls motivated, qualified, and committed students who are ready to pursue industry-oriented skills to kickstart their careers. After determining the number of available slots from the companies, the TVET college can proceed with the identification of students. It is advisable to attract a large pool of applicants to allow industries to screen and select the most suitable candidates for the dual TVET program. The following steps should be followed:

- i. **Advertising and Creating Awareness:** TVET institutions can utilize various advertising methods such as newspapers, local radio channels, distribution of

flyers, and road shows to attract a wide range of students for the program. Additionally, some companies may be willing to advertise the program through their company websites, so the TVET college can collaborate with them for joint advertising initiatives. It is important to ensure that the information shared on the posters and advertisements is accurate to manage students' expectations effectively.

- ii. **Shortlisting of Trainees:** During this process, candidates are shortlisted based on the entry requirements of the program. This involves assessing their previous academic qualifications and any other applicable criteria. The successful candidates are then required to express their interest in the pool of companies that have committed slots. The next step is to shortlist candidates per pool based on their expressed interest in specific companies and submit those names to the respective companies. A recommended guideline is to send a minimum of three candidates for every available slot to the companies for screening. However, some companies may specify the number of candidates they would like to interview, and this should be agreed upon with the TVET college.
- iii. **Interview of Candidates:** Once the pool of candidates has been sent to the companies, the TVET institution should coordinate and confirm interview dates for the final selection of students. It is preferable to set aside a specific day at the TVET college where the companies and students can meet for the interview process. However, some companies may prefer to conduct interviews at their own premises, in which case the TVET college can make the necessary arrangements and communicate them to the relevant students. It is important to note that different companies may have different methods for selecting their students, such as oral interviews or aptitude tests. The selection process should be left to the discretion of the respective industries. To support the students, the TVET college can organize an interview preparation session a week or a day before the interviews, as most students may lack experience in presenting themselves during an interview. This session can also cover important skills such as CV writing.
- iv. **Finalization and Training Agreements:** The TVET institution should collaborate with the respective industries to consolidate the final list of selected candidates and prepare admission letters for the upcoming intake. The number of candidates on the final list should match the committed slots from the companies. It is advisable for the selected students to sign a training agreement with both the TVET college and their respective companies. The training agreement, which is distinct from an employment agreement, will outline the responsibilities of the trainee, the TVET college, and the company during the training period. Copies of the training agreements should be filed at the TVET

college. Since most school blocks are the starting point, students can be given until the first industry block to have their training agreements signed.

By following these steps and ensuring a thorough selection process, the TVET institution can enroll students who are well-prepared and motivated to excel in the dual TVET program, fostering successful industry partnerships and supporting the students' career development.

4. Dual TVET Implementation

Once the previous processes have been completed, the dual TVET program can commence, following the agreed-upon rotation model between the TVET college and the industry partner.

Training Implementation: At the TVET school, trainers are expected to adhere to the training plans developed and agreed upon with the industry partner. Assessments during the school blocks will be conducted according to the guidelines set by the examining bodies.

Upon completion of the school block, students will transition to the first industry block. Different industries may have their own unique program structures, some of which may begin with onboarding and induction sessions. In-company trainers will utilize the industry-based training plans to provide students with practical and hands-on training in the industry setting. It is important to note that the industry floor should not be transformed into another classroom, and therefore, the training schedule may be based on focused work at the industry during specific weeks or days. This means that there may be variations in the learning experiences of different trainees at different companies. However, these variations should be addressed and equalized when the trainees return for the school-based training block.

Communication between TVET Trainers and In-Company Trainers: During the implementation phase, trainers from the TVET college should make regular visits to the industry to assess the progress of their students. It is advisable for industry-based trainers to also make visits to the TVET school if their schedules permit. Consistent communication and consultation between the industry-based trainers and school-based trainers will greatly benefit the students throughout their training journey. The TICC (Training and Industry Coordination Committee) can also convene in case any serious issues arise during the training at either location, in addition to their regular meetings.

Student arrangements: Regarding student logistics, they may need to consider shifting their residences to live closer to the industries or choose to retain their current locations, depending on the location of the industries. Therefore, it is crucial for the industries to be easily accessible during the identification process. Alternatively,

students can be attached to companies near their homes or seek financial support from their parents to reside near the industries, facilitating their attendance at industry trainings. All of this information should be communicated to the students and parents during the selection process, ensuring they are aware of the forthcoming processes and potential costs associated with training in the industry, thus mitigating any challenges that may arise during the program.

While working in the industry, students are required to comply with all company regulations, similar to regular employees. Violation of company regulations may result in disciplinary action. Students are also expected to have the necessary Personal Protective Equipment (PPE) specific to each industry. This information should be communicated to the students at the beginning of the program, and the industries should share the specific PPE requirements with the TVET college during the onboarding stage of the companies.

5. Course Completion and Transition to the labour market

Upon completion of the training course, students will have gained comprehensive theoretical and practical training, equipping them with the necessary skills to enter the job market. The TVET colleges, in collaboration with their respective examining bodies, will award CBET certifications to students who have successfully met the course requirements.

In addition to the CBET certification, it is advisable for industries to provide recommendation letters and certificates of participation to acknowledge that the students have acquired valuable practical training within their specific industry. Many industries prefer to retain a pool of students or offer employment to all the students who have trained and been mentored by them. This preference arises from the fact that these students are already familiar with the company's culture, procedures, and operations, which eliminates the need for additional training and onboarding costs. By hiring these students, companies can ensure a smooth transition into the workforce as they can immediately contribute to the organization's operations upon receiving their employment contracts.

Other methods of tracking and tracing students during employment can be applied.

Summary of timelines for the Dual TVET Cycle

The onboarding process for a dual TVET class requires careful planning and preparation by TVET colleges, and it is essential to start these preparations well in advance. Typically, it takes a minimum of 3-4 months to adequately prepare for an intake and ensure that all necessary conditions are met for the dual TVET class to commence. The following sample timeline provides an outline for recruiting a

successful class to begin by September, although it can be adjusted to accommodate different timelines:

Sample Timeline for Dual TVET Class Recruitment:

Month 1: Initial Planning and Program Design

- Identify the vocational area(s) suitable for the dual format.
- Assess the availability of well-equipped workshops for the chosen vocational area(s) within the college.
- Determine the number of slots required from industries and establish partnerships with potential companies.
- Develop a matrix of companies and sectors of interest.
- Discuss the program's structure and requirements with industry partners.

Month 2: Student Selection and Industry Orientation

- Advertise and create awareness about the dual TVET program to attract a large pool of applicants.
- Shortlist candidates based on program requirements and qualifications.
- Conduct orientation sessions for companies to explain the dual TVET approach and their roles.
- Facilitate interviews and selection processes by companies.
- Engage with industries to finalize the list of selected candidates.

Month 3: Training Agreements and Final Preparations

- Have selected students sign training agreements with the TVET college and respective companies.
- Issue admission letters to the final list of selected candidates.
- Provide necessary information to students and parents regarding logistics, potential costs, and industry expectations.
- Coordinate with industries to ensure readiness for the program's start.
- Conduct any required training for in-company trainers during this period.

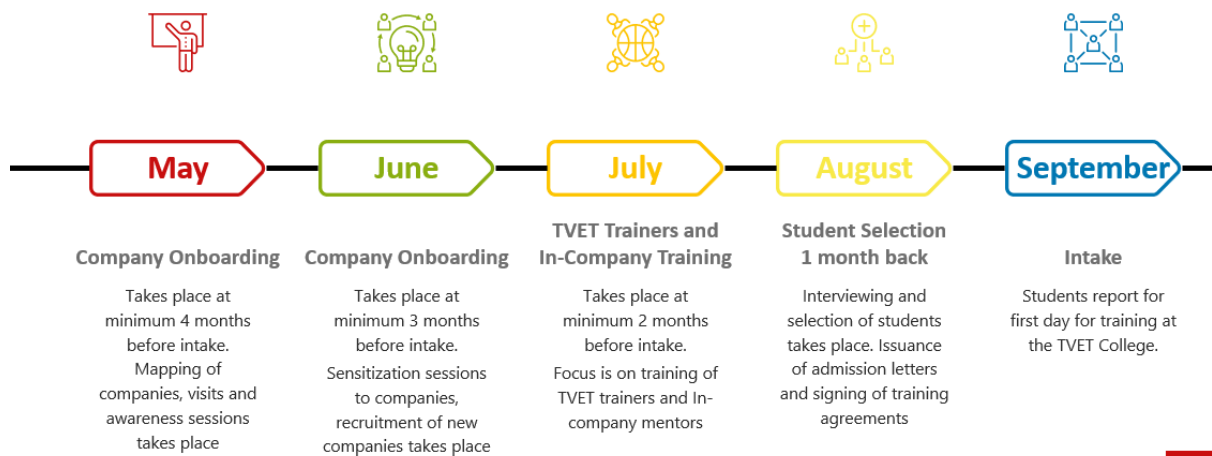
Month 4: Program Commencement

- Start the dual TVET program based on the agreed rotation model.
- Implement the training plans and assessments developed in collaboration with industry partners.
- Monitor student progress through regular visits and consultations with industry-based trainers.

- Maintain consistent communication between industry-based trainers and school-based trainers.
- Address any issues or concerns that may arise during the training period, with support from the TVET- Industry Coordination Committee (TICC).

Sample timeline for a September in-take class

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Project Specific Communications

The Ministry of Education through the State Department of TVET will jointly implement this project with the GIZ Project team. Below is some more information about the implementation phase:

- The project period is until December 2026 and the TVET institutions are required to have established enough capacity to institutionalize dual TVET within this period.
- More sensitization/training sessions will be conducted through workshops and seminars and this will be communicated along the project implementation period. The Kenya School of TVET will conduct some of the trainings sessions for capacity development of the team and this will be advised and scheduled accordingly
- TVET Colleges are expected to undertake 2 intakes (May and Sept) during the project phase and or otherwise have a minimum of two different courses under the dual program to start (Course identification process is stipulated at the beginning of this document). The first intakes should take place in Sept. 2023 onwards

- It is advisable that the TVET College establishes a Dual TVET Task force perhaps led by the institution's Industry Liaison Officer or any appropriate officer that the college finds suitable to steer the dual TVET program implementation at the college. The task force will lead the industry mapping process and other key activities for the dual training
- Industry-based trainers will also be trained during the program implementation period to enhance their skills in transfer of knowledge so that they can effectively implement the industry-part of dual training
- A technical team supporting the TVET college directly and one advising the Industry sector will be available at all times from the project team during the implementation period.