



# Participant Manual

## Technical and Vocational Education and Training (TVET) Self-Assessment Toolkit

### Enhancing Skills for Sustainable Development

A workshop to assist participants in analysing the stages of development  
in their Technical and Vocational Education and Training system



The Commonwealth

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Commonwealth Secretariat



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## **Participants Manual**

### **Technical and Vocational Education and Training (TVET) Self-assessment Workshop**

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## Foreword

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Technical and Vocational Education and Training (TVET) is essential to equip youth and adults with the necessary skills for employment and entrepreneurship and to achieve sustainable development. The Nassau Declaration<sup>1</sup> at the 19<sup>th</sup> Conference of Commonwealth Education Ministers (19CCEM) in June 2015 highlighted the Commonwealth values of equity and access, and the key role of education for sustainable development. At this conference, Ministers welcomed the significant contributions of the Commonwealth Ministerial Working Group towards achieving the targets among member countries for quality education involving performance, pathways and productivity (3Ps).

Further, it has been recognised that coordinated action on education, skilling and training at national and international levels is crucial for achieving the Sustainable Development Goals (SDGs). Enabling quality and inclusive education systems are critical not only to achieve SDG4 (Quality Education) and SDG8 (Decent Work and Economic Growth), but also toward achieving all other SDGs.

The International Labour Organization (ILO) notes that 267 million young people (aged 15–24) around the world are not in employment, education, or training (NEET), and many more endure substandard working conditions.<sup>2</sup> An effective TVET program can address multiple economic and societal demands by enabling youth and adults to develop relevant lifelong skills needed for employment, decent work and entrepreneurship. TVET also contributes in the transition towards more sustainable societies and greener economies.<sup>3</sup>

Over 60 per cent are under the age of 30, out of the 2.5 billion population of our 56 Commonwealth member countries. Therefore, skills development for the Commonwealth youth continues to be a high priority for Commonwealth Heads of Governments as well as Education Ministers to ensure adequate education and training, reduce barriers to work and increase youth employment. The Commonwealth Secretariat thus continues to advocate for our member countries to reform their respective TVET systems and actively undertake regular needs based updates.

The TVET landscape is evolving. Emerging skills, digitisation and Industry 4.0, and the implications posed by climate change, are just some factors demanding TVET systems to become more responsive, resilient and sustainable.

In 2020, the COVID-19 pandemic necessitated educational institutions to rapidly move into digital modes of teaching and training. As the pandemic persisted into 2021, the socio-economic constraints highlighted the pre-existing digital divide, restricted access to education causing inequitable development of children and youth. As a practical oriented training program, delivering

TVET entirely online is neither feasible nor can it adequately achieve the goals for skills development. Consequently, the TVET sector has been adapting to deliver courses in flexible online and blended modes so that skills training and education remains resilient to future disruption. Building resilience in TVET also requires constantly developing new curricula and assessment models which cater to the emerging technological innovations and digital skills relevant to the evolving world of work during the industrial revolution 4.0. TVET is also important to enable upward economic mobility and equitable development.

The revised Commonwealth TVET Toolkit 2021 includes new responses for vocational education systems in a post-pandemic world to enable knowledge transfer between member countries and facilitate a green recovery through low carbon industries and economies. This Toolkit is expected to support member countries across the Commonwealth to assess the strengths and weaknesses of their TVET systems, identify key gaps in policies and delivery mechanisms, and prioritise areas for further development.

The TVET Toolkit 2021 comprises of a Participant's Manual and Facilitator Guide. The Toolkit provides resources for participants, through facilitated workshops and other modes to explore the six key features of an effective TVET system: (i) governance; (ii) employer engagement; (iii) occupational standards; (iv) qualification frameworks; (v) quality institutions; and (vi) delivery and assessment; and to assess how well their TVET systems are performing under these areas.

It is hoped that this updated Toolkit will serve member countries to review, compare and strengthen their TVET systems toward achieving their respective education policy targets and SDGs.

**Dr Arjoon Suddhoo**  
Deputy Secretary General of the Commonwealth

## Notes

- 1 Commonwealth Secretariat. (2015) *Nassau Declaration 19CCEM*. [http://thecommonwealth.org/sites/default/files/news-items/documents/2015-06-26\\_2300\\_Draft%20Communique%20FINAL%20\(2\)%20Ministerial%20Changes%20-%20FINAL%20CHANGES\\_with%20titles%20\(1\).pdf](http://thecommonwealth.org/sites/default/files/news-items/documents/2015-06-26_2300_Draft%20Communique%20FINAL%20(2)%20Ministerial%20Changes%20-%20FINAL%20CHANGES_with%20titles%20(1).pdf)
- 2 International Labour Organization. (2020) *World Employment and Social Outlook – Trends 2020*. [https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms\\_734455.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_734455.pdf)
- 3 UNESCO-UNECOV. (2021) *UNESCO-UNEVOC Medium-Term Strategy for 2021-2023: Strengthening TVET capacities and cooperation in the Member States* <https://unevoc.unesco.org/home/UNEVOC+Publications/lang=en/akt=detail/qs=6431>

## Acknowledgements

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In addition to thanking again those who were involved in the Toolkit's development back in 2016, we also thank the participants of TVET self-assessment workshops held in 2019/2020 in Botswana and Sri Lanka, and wish to recognise and extend our gratitude to all who gave generously of their time and insights on how the Toolkit has performed and could be improved.

This includes officials from education ministries in selected Commonwealth member countries, education experts and representatives from Commonwealth and global education organisations.

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Finally, we extend our appreciation to the Secretariat's publications, design and production team for their time and effort in bringing the second edition of this toolkit to fruition.



# 1. Introduction

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## 1.1 Overview of the toolkit

This *Participant Manual* aims to support a workshop which assesses the current stages of the development of the participants' TVET system. The manual can also be used to independently assess any TVET system, either as an individual or group exercise.

This manual is part of a comprehensive toolkit which comprises the following:

1. **Participant Manual** (this document)

The manual includes:

- the rationale and methodology used to develop the TVET assessment framework;
- detailed descriptions of the six key features which underpin a strong TVET system;
- detailed explanations of the five stages or levels of development;
- a copy of the TVET self-assessment workshop presentation slides;
- a web link to the original research report which led to the development of the framework;
- a template for recording the results of your self-assessment of the TVET system and
- a sample template of the Excel spreadsheet showing how the self-assessment ratings can be visualised as a radar chart.
- A guide to action planning.

2. **Facilitator Guide for the TVET Self-Assessment Workshop**

This guide includes:

- facilitator guidelines for running the workshop and
- draft workshop agenda for a 1-day workshop with options to extend to 2 days presentation slides in a Word document format.

3. **Virtual Introductory Session/TVET Assessment Framework video**

The virtual interactive introductory session will describe the key features of the TVET Assessment Framework and provide guidance on how to use the framework to self-assess a TVET system. Where this is not possible, it will be done via seven short (5–8 minutes) video clips.

Electronic copies of the presentation slides, video clips and Excel spreadsheet are available through the Secretariat.

## 1.2 Objectives of the workshop

Through formal presentations, group discussion and activities, participants will be able to:

1. identify the key features of a responsive and resilient TVET system and the different stages of development for each feature,
2. assess the strengths and weaknesses of a specific TVET system and
3. recommend priorities for the future development of that TVET system.

At the end of this manual is a short guide to action planning to help translate these priorities into a specific set of actions.

## 1.3 Development of the Framework

### Initial development of the Toolkit 2011

The Toolkit is based on a *TVET Assessment Framework* developed by the Secretariat. The framework was originally developed in 2011 in the context of a recovering global economy, where limited resources posed significant challenges for countries in meeting the education and skills development needs of their young people.

Initiatives undertaken then in support of the Millennium Development Goals by countries around the world resulted in notable increases in enrolment rates at the primary and secondary education levels (Commonwealth Secretariat, 2013).

However, high drop-out rates at the secondary and higher secondary levels were resulting in a broad gap in transition from secondary to any form of formal post-secondary education and/or training. In Commonwealth countries, the combination of limited resources and a relatively young population meant that developing human capital was becoming an imperative for policy-makers (*ibid.*).

At the time, Commonwealth countries constituted approximately 2 billion people, of which 1 billion were below the age of 25, with a significant proportion of those being adolescents (*ibid.*). Of these 1 billion, only 10–15 per cent of students enrolled in primary education progressed to formal post-secondary education (university or any type of formal TVET programme), which represented a significant and untapped potential for economic development (*ibid.*).

In this context, TVET was seen as an important option for citizens, specifically young people, in acquiring skills for employment, enabling them to contribute towards the economic development of their respective countries.

The development of the framework was carried out in two stages:

1. Review of the demographics and structure of the education sector and a review of TVET policy and initiatives in selected countries. This led to the identification of six key features of most TVET systems.

2. Expansion of the framework to include key elements within each feature and the types of evidence, which indicate the level of development and implementation.

Several constructs were reviewed, analysed and evaluated as to their relevance, applicability and transferability to different TVET systems.

In particular, the focus of the research was on how TVET was defined as a distinct education sector, the features common to most TVET systems and an appropriate taxonomy indicating levels of development.

### **Update of the Toolkit 2021 – responding to COVID-19**

Ten years on and the TVET landscape has changed dramatically. The first major initiative that TVET systems around the world needed to take into account was the release of the United Nation's 2030 SDGs in 2015. Relevant goals, indicators and TVET responses are addressed in the next section under *1.4 Rationale*.

As individual countries became more aware of the impact of climate change and many industries and economies moved rapidly towards a low carbon environment, governments, employers, and national and international agencies looked to the TVET sector to provide the necessary skills for both young people about to enter the workforce and for people having to re-train and upskill.

In late 2019 and early 2020, the COVID-19 pandemic spread throughout the world, leaving no nation untouched. The impact of COVID-19 on TVET was profound with many colleges closing down, many for over a full year of study.

A survey conducted by the ILO, UNESCO and World Bank in April/May 2020 found the vast majority (90 per cent) of the 1300 respondents in 130 countries reported complete closure and 98 per cent reported disruption of work-based learning (ILO, 2021).

The World Bank identified the following:

- *“The COVID-19 outbreak triggered tremendous efforts to promote learning continuity and accelerated the uptake of innovative approaches.*
- *Practical training was severely disrupted nearly everywhere, despite some positive exceptions.*
- *Successful responses were not evenly distributed, and the crisis emphasised pre-existing gaps in accessing learning opportunities.*
- *2020 was a year of intensive creativity.*
- *TVET systems need to address short-term implications of the pandemic and persistent structural problems.*
- *The pandemic exposed weaknesses in TVET institutions and systems, but the scale of innovation and experimentation also showed that rapid change is possible.*

- *A new joint initiative by the World Bank, ILO and UNESCO will support these efforts by providing lessons learned and good practices on key aspects of TVET provision*". (World Bank Blog, April 2021a, 2021b)

Workplace training, including apprenticeships, traineeships and work experience placements, were put on hold and many small and medium enterprises had to reduce their staffing, some closing completely.

The impact on specific industry sectors varied greatly; hospitality and tourism, building and construction, and the creative arts were particularly hard hit and led to major job losses. These losses should be distinguished between those lost due to structural changes in certain sectors, such as retail, and those likely to re-emerge once social distancing rules have been lifted, such as jobs in the hospitality industry. On the other hand, other sectors including healthcare (particularly nursing and aged care), some areas of manufacturing, and online services experienced increased demand for skilled workers.

Preparing teachers and students for an online learning environment was also a major challenge, more so for practical courses designed specifically for an in-person, hands-on environment, such as hairdressing or construction. While the digitisation of teaching and learning had been foreshadowed for some time, especially as part of a 'blended learning' model that combines in-person and virtual elements, COVID-19 catalysed an exponential global increase in the uptake of online learning technologies.

The digitisation of work practices was fast tracked in many other industries; delivery drivers dependent on mobile apps, call centres (phone only) replaced by interactive websites and online chat facilities, automated financial planning, web and podcasts for the creative arts, and of course video and web conferencing through platforms such as Zoom, MS Teams, Skype and WhatsApp.

People's attitude to working remotely also changed dramatically. A mid-2021 survey of 1339 employees of the Dundee City Council in Scotland found that almost 350 employees estimated 100 per cent of their work could be done remotely, while 400 employees estimated 80 per cent of their work could be done remotely (2021, Dundee City Council, unpublished).

This presents major challenges for TVET systems offering opportunities for re-skilling and upskilling people in the workforce and preparing young people for employment.

In May 2020, the World Bank identified the following strategies for TVET systems facing the disruption of a pandemic (World Bank, 2020). These strategies are important not just for the short term but also need to be built in to TVET systems to ensure the lessons learnt are not wasted:

- "Provide remote TVET learning where possible,
- Continue work-based learning (onsite and/or online) where possible,

- Engage TVET trainers and students in provision of skills for the emergency response (health workers, care services and essential service workers),
- Where possible, exploit opportunities to skill idle (furloughed or unemployed) workers and train TVET instructors,
- Embed hygiene skills in programmes,
- Work with employers on adapting work safety conditions for work-based learning,
- Reopen schools and work placements with flexibility to accommodate varying needs and contexts,
- Recognise prior learning obtained during closures,
- Provide psycho-social support to manage mental health impacts of the crisis,
- Provide tailored support for vulnerable students,
- Prepare for rapid assessment and response to emerging skill needs,
- Design new or expand current programmes to address emerging skill needs, in collaboration with employers,
- Invest in providing flexible (modular, part-time and evening) learning,
- Facilitate modular training and micro-credentialing in TVET and lifelong learning,
- Work in partnership with employers to provide rapid and modular skills training to idle and unemployed workers,
- Continue to build on remote learning infrastructure and skills, and
- Structurally embed successful innovations from stages 1 and 2 in skill development systems.”

### **Technological Advancements**

The response of TVET systems to the pandemic varied greatly, though an increased reliance on online learning was a common trend. Countries’ transitions to online learning differed depending on the levels of existing digital infrastructure and the readiness and capacity of TVET providers to develop and roll out distance learning solutions. This transition was not a smooth process for many. Particularly in lower-income countries, where limited access to both devices and a stable internet connection has prevented many students from fully participating in online learning. The focus for TVET systems has therefore been on maintaining contact with students and ensuring they were ready to resume their studies once colleges re-opened. For well-equipped students in countries with established online learning management systems, this shift has been an opportunity to continue their training from home and access course content from anywhere at any time.

Nonetheless, all TVET systems adopting online learning faced challenges around hardware and software quality, inequitable access to devices, insufficient internet bandwidth, and a lack of skilled IT staff.

Commonwealth member countries must make every effort to provide the means for online and hybrid learning as a matter of resilience to future health and natural disasters. Promoting government investment and policy to tackle inequitable access to new and emerging modes of education must be a priority to safeguard the learning of millions.

An example of good practice in the TVET sphere was highlighted by UNESCO-UNEVOC in 2021. TVET providers in Finland have a high level of autonomy which has greatly aided their transition to alternative forms of training and assessments. The Practice 2021 report describes the steps Finland took to minimise the spread of COVID-19 whilst ensuring students were able to continue their training (UNESCO-UNEVOC, 2021a).

### Box 1: TVET adaptation and digital assessments in Finland

TVET providers adjusted their programmes in accordance with local needs and worked closely with companies to tailor actions based on the level of disruption.

The companies and institutions put procedures for social distancing and good hygiene in place with measures including:

- only allowing smaller groups of students to work together
- arranging virtual orientation weeks
- generally avoiding unnecessary contact between students and staff

Most employees and students were allowed back on site at the companies where they were working, however, the teachers were not. Adjustments to the normal assessment processes were required with workplace mentors learning to livestream videos of students performing practical tasks to their teachers and subsequent assessment discussions also being held online.

In some sectors, students could not continue work-based learning, so other solutions had to be found for skills demonstrations and assessment. As a result of a temporary change in Finnish legislation, TVET institutions were allowed to adjust their assessments to allow students to demonstrate their competency by performing practical tasks. These assessments took place in sites similar to those of authentic work situations, such as a landscape and design student planning and implementing work on campus grounds, or a healthcare student organizing a pop-up online campaign to promote healthy living.

Aside from responding to the pandemic, technological advances have been the driving force of innovation in the TVET sector. The introduction of new digital technologies such as artificial intelligence, robotics, 3D technologies, and augmented and virtual reality has required TVET to broaden its horizons. As a result, institutions are adapting and expanding their occupational profiles, curricula and skills development, and training regulations to the rapidly growing field of advanced technologies.

This also applies to the ‘Greening’ of TVET, which UNEVOC-UNESCO defines as ensuring ‘future generations have the skills and competencies for emerging and current jobs that are changing significantly to align with green practices in industries’. The greening of TVET is taking place at multiple levels. Firstly, TVET systems are increasingly focused on training workers who are prepared to enter into green vocations and industries. This includes jobs that help protect and preserve ecosystems and biodiversity, mitigate and respond to pollution and waste, de-carbonise the economy, and create strategies to reduce energy, materials and water consumption (ILO, 2011). Secondly, the providers and institutions themselves are adopting more environmentally friendly and greener practices to deliver their training.

In order to offer relevant qualifications and competencies to learners in these new technologies and fields, there must be quality professional development opportunities for TVET staff and trainers. In addition, teachers must understand the application of digital and environmental technologies and their leading role in the future of work. Only then can they be most effectively incorporated into curricula (UNESCO-UNEVOC, 2021b). These are priority issues for TVET institutions in the post-COVID era.



### **The TVET Self-Assessment Framework refreshed**

The framework has been refreshed to assist countries to identify and assess the current status of their TVET system and its ability to be responsive, flexible and resilient. Greater emphasis has also been placed on skills for sustainable development.

Recent developments in TVET, and not to mention the drastic impact of the COVID-19 pandemic on the sector, have provided an opportunity to reflect on the TVET System's framework and elements presented in this Toolkit. The top-level structure of six key features has not been changed; however, there are new and revised elements for each feature.

Most importantly, the framework helps identify whether appropriate structures, people and policies are in place to meet the needs of people seeking employment, retraining, upskilling or establishing their own enterprise. Equally, the TVET system should also meet the current and future skills required by employers and contribute to a more sustainable approach to work and participation in society.

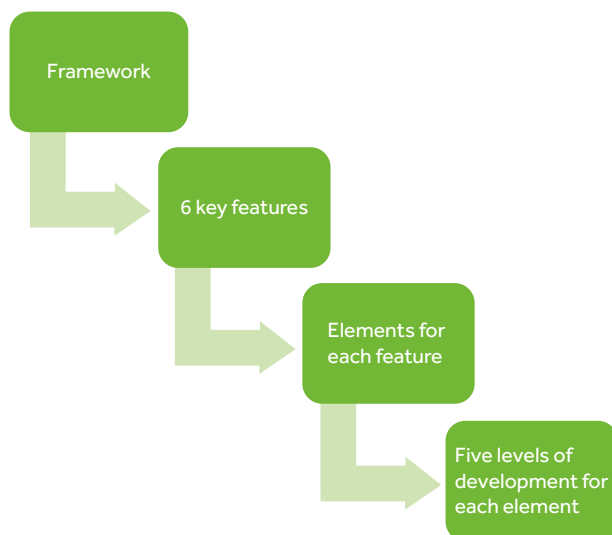
The framework is most suited for use at a national level; however, it can also be used to identify and assess the levels of TVET development at a provincial or state level. To a lesser extent, the framework can be used at an individual institute or college level.

Based on the findings of the initial research, six key features were identified as being fundamental to an effective TVET system:

1. Governance and funding
2. Employer engagement
3. Occupational standards
4. Qualification framework
5. Quality institutions
6. Delivery and assessment

Each feature has a number of elements that help explain in more detail what makes for an effective system.

The elements within each feature are then categorised into five levels of development, ranging from no evidence of any development up to full implementation and continuous monitoring and evaluation, and improvement for the overall effectiveness of the skills system. In this way, the framework provides a snapshot in time of the TVET system and where areas for further development and improvement can be made.



Based on feedback from previous TVET assessment workshops, it is important to note the following:

- The primary aim of the workshop is to stimulate discussion and encourage reflection on the strengths and weaknesses of the current TVET system. The toolkit is not meant to provide a definitive ranking and should not be seen as a diagnostic tool.
- There will probably be much discussion and even disagreement as to the level for a particular element. This is expected as someone from government may have a very different view of achievements than someone from a small or medium enterprise. Through further discussion you should be able to reach an estimate of how the system is currently operating.
- Some groups struggled with a choice between two levels and would have preferred a scale of 1–10 rather than 1–5. Again, the purpose is not to provide a definitive level but to identify areas for improvement. If in doubt, always choose the lower level as it allows for further improvement in some aspects of the element even if most of the element has been achieved.
- Participants are encouraged to constantly acknowledge the overall strategic plan of their own Skills and TVET sector. There is the potential risk that participants may allocate tasks to themselves and their organisation on the assumption that they will receive additional funding. The group must work together and ensure the most appropriate bodies are allocated tasks that are achievable and realistic.

## 1.4 Rationale behind the framework

### 1.4.1 Defining TVET

A clear definition of TVET is needed to guide development of any assessment framework. In some countries, TVET encompasses technical and vocational education in schools, technical colleges, polytechnics, universities and industry-based enterprises. TVET may also include public and private providers, community groups and public-private partnerships (PPPs).

In many countries, the distinction between TVET and other education sectors can sometimes be blurred: vocational training in schools, advanced technical qualifications in universities and degree level courses in technical institutes. In both the UK and Australia, a number of technical colleges were transformed into universities and in China (PRC) and their technology institutes were rebranded as technological universities. Additionally, a TVET institution could also be branded as a polytechnic, a Further Education college, an institute of technology, a technical and further education institute or any variations of the above.

TVET may be guided through policy development and funding by one government ministry or, in many cases, multiple ministries and agencies. There may be a single national skills policy or multiple policies across different ministries, industry sectors and geographies.

Qualifications, certificates and licences may be awarded by government-endorsed entities, private companies, employer associations, unions, community groups, professional associations or government departments.

At the same time, there is often a significant amount of teaching and learning in non-formal and informal settings. From the church group that runs a computer literacy club to the father who teaches his daughter how to repair a manifold gasket in his family-run motor repair workshop.

All teaching and learning has value. However, for the purposes of this toolkit, we have defined TVET as ‘**formal learning within an institutional framework**’ (Australian Government Standards for VET Accredited Courses 2013).

**Formal learning** refers to learning that takes place through a structured programme of instruction and is linked to the attainment of a formal qualification or award (*ibid.*).

**Non-formal learning** takes place through structured learning programmes but does not lead to the attainment of a formal qualification or award.

**Informal learning** is gained through experience in work-related, social, family, hobby or leisure activities (*ibid.*).

An effective TVET system has the capability and capacity to recognise and accredit the knowledge, and skills learners have gained through non-formal and informal learning through a formal recognition process.

#### 1.4.2 Alternative definitions

The above definitions of TVET also draw on the following definitions:

##### UNESCO

*Technical and vocational education and training (TVET) is understood as comprising education, training and skills development relating to a wide range of occupational fields, production, services and livelihoods.*

*TVET, as part of lifelong learning, can take place at secondary, post-secondary and tertiary levels and includes work-based learning and continuing training and professional development which may lead to qualifications. TVET also includes a wide range of skills development opportunities attuned to national and local contexts. Learning to learn, the development of literacy and numeracy skills are integral components of TVET (UNESCO GC, 2015)*

### International Labour Organisation (ILO)

The ILO expands their definition of TVET to cover the sequence of life stages from basic education which ‘lays the foundation for employability’ to training which provides core work skills, general knowledge, and industry-based and professional competencies for work.

There is a strong emphasis on lifelong learning that maintains individuals’ skills and competencies as work, technology and skill requirements change.

The ILO further articulates the role of TVET in promoting the transfer of activities from the informal to the formal economy as:

*... broadening access to basic education, supporting formal means of developing skills, and combining vocational and entrepreneurship training to facilitate the formalisation of small enterprises (ILO, 2011).*

### Australian National Training Authority (ANTA)

*Vocational education and training (VET) provides skills and knowledge for work, enhances employability and assists learning throughout life. In Australia, its foundation was laid in the mid-to-late nineteenth century where mechanics institutes, schools of mines and technical and working men’s colleges were established to develop the skills of Australia’s working population (ANTA 2004, cited in Commonwealth Secretariat, 2013).*

### The British Council

*TVET in the UK forges the knowledge, skills and behaviors that enable employment and social mobility. TVET is also vital in supporting businesses to innovate and grow and plays an integral role in sustainable economic development.*

*UK TVET is also a central part of Building Back Better from Covid-19, responding to industrial and social change and tackling climate change. It is a priority in every corner of all four UK nations. A summary of key objectives for the sector include:*

- High quality training that meets current and emerging industry skills needs
- Designing new and better ways for employers and educators to collaborate
- Ensuring flexible routes into training and employment so that all groups of learners, including those otherwise marginalised, can access training that enhances their prospects
- Promoting higher level technical qualifications and training
- Supporting lifelong training and retraining opportunities to meet the needs of employees and employers for years to come
- Investing in professional development initiatives and recruitment campaigns to build the sector’s training capacity

### 1.4.3 TVET as a vehicle for change

One of the key outcomes of the 2011 research was the need for a TVET Assessment Framework which could be used by member countries to assess the strengths and weaknesses of their current TVET system using benchmarks which were similar to those used in other TVET systems around the world.

The TVET framework would allow member countries to review and evaluate the effectiveness of their TVET system and would include policy, governance and delivery modalities using six key elements based on established standards. The framework would also include a taxonomy of development to guide countries in analysing and assessing the features, levels of development and effective operationalisation of their system.

The end goal is to empower member countries to develop roadmaps to transform their existing TVET system into one which is flexible and resilient and meets the needs of all stakeholders: students, employers, teachers and the broader community. However, not all stakeholder needs are the same and TVET systems need to be designed to resolve the tensions between competing demands.

Examples of competing TVET demands include:

- longer courses with strong academic recognition compared to short micro-credentials meeting immediate employer needs,
- courses mainly delivered in the classroom compared to courses run in the workplace,
- face to face teaching compared to online learning,
- skills for specific occupations compared to skills for lifelong learning,
- employer input on course content compared to employer control over course input,
- centralised decision-making compared to localised authority and
- institution-based compared to community-based.

None of these demands are mutually exclusive and the challenge for TVET systems is to find the appropriate balance between them.

### 1.4.4 TVET and the sustainable development challenge

Following the release of the United Nation's 2030 SDGs in early 2016 (United Nations, n.d.), the framework now assumes even greater importance. An effective TVET system can make a major contribution to all 17 SDGs but in particular Goal #4: *Ensuring inclusive and quality education for all and promoting lifelong learning*. Figure 1.2 provides a graphical depiction of the 17 SDGs.



Within SDG4, there are ten specific targets that include the following direct references to TVET:

- 4.3: By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.
- 4.4: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.
- 4.5: By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.
- 4.7: By 2030, ensure that all learners acquire knowledge and skills needed to promote sustainable development, including among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.
- 4.a: Build and upgrade education facilities that are child, disability and gender-sensitive and provide safe, non-violent, inclusive and effective learning environments for all.
- 4.b: By 2020, substantially expand global the number of scholarships available to developing countries, in particular least developed countries, small island developing states and African countries, for

enrolment in higher education, including vocational training and information and communication technology, technical, engineering and scientific programmes, in developed countries and other developing countries

- 4.c: By 2030, substantially increase the supply of qualified teachers, including through international co-operation for teacher training in developing countries, especially least developed countries and small island developing states.

In addition, SDG8 included targets for 2020 to “substantially reduce the proportion of youth not in employment, education or training” and “to develop and operationalise a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization”.

SDG8 now includes a number of streams aimed at setting the world “on a more sustainable development path and make the global economy more resilient to future shocks”.

UNESCO’s Strategy for TVET (2016–21) supports efforts of member states to enhance the relevance of their TVET systems and to equip all youth and adults with skills required for employment, decent work, entrepreneurship and lifelong learning, and to contribute to the implementation of the 2030 Agenda for Sustainable Development as a whole. It has three priority areas (*ibid.*):

1. fostering youth employment and entrepreneurship,
2. promoting equality and gender equality, and
3. facilitating the transition to green economies and sustainable societies.

UNESCO-UNEVOC’s Medium-Term Strategy for 2021–23’s vision is to promote “future-oriented TVET that is responsive to sustainable development and labour market demands”. The Strategy’s main aims are to

1. increase the capacity of TVET staff to handle a digitalised world,
2. mainstream climate change responses in TVET,
3. expand the skills pathways for migrants and disadvantaged youth,
4. synergize private sector investment in TVET,
5. promote networking and peer-learning among TVET institutions,
6. advance TVET through knowledge exchange and
7. mitigate the impact of the COVID-19 pandemic.

#### **1.4.5 TVET responses to the SDGs**

Since the development of the 2030 SDGs, a number of TVET systems have responded very positively. For example, a UNESCO research project in 2021

(UNESCO, 2021) examined five independent case studies – conducted in Canada, Chile, China, Taiwan and the United States – and demonstrated that:

*community colleges and TVET institutes are uniquely positioned to make substantial contributions and should be an important part of the sustainability discussion. The findings show that the SDGs related to economic development and social justice were a priority in all five case studies, while the environmental SDGs were foremost in the two North American studies. The main barriers to sustainable development include the high cost of education, low completion rates, graduates' inability to secure employment commensurate with their education, inadequate funding and the reputation of CCs and TVETs as second-tier institutions. (UNESCO, 2021)*

Furthermore, a series of studies carried out in 2018 by CEDEFOP (CEDEFOP, 2018) identified a range of skills required for “green jobs” in six European countries. These studies formed the backdrop to the ILO’s World Employment and Social Outlook 2018: Greening with jobs (ILO, 2018).

A number of agencies and researchers have identified a wide range of skills and occupations needed for societies to adapt to a more sustainable future. While there are some occupations with a clear link to developing a low carbon economy such as a wind farm technician, all sectors require skills in sustainable development.

Even the definition of a “green job” has stimulated much debate (ONS, 2021). However, it is clear there is no “one size fits all” solution and a sector by sector approach to defining, training and recruiting people with skills for a sustainable future is required.

### Skills for Employment in a Green Economy

- Skills supporting low carbon industry
- Skills supporting climate resilience
- Skills to manage natural assets
- Skills supporting resource efficiency
- Natural capital accounting
- Engineering and technical skills
- Ecosystem services
- Science skills
- Monitoring skills
- Operation management skills

- Utilisation of remote-sensing data
- Life-cycle assessment/analysis
- Design thinking, creativity, adaptability, resilience and empathy

(Nichols, 2019; UNIDO, 2021)  
(accessed June 2021)

Other regional initiatives include:

#### Canada

- August 2020 Conference: Emerging best practices to embed the SDGs in the TVET sector to build back better. <https://www.collegesinstitutes.ca/event/emerging-best-practices-to-embed-the-sdgs-in-the-tvet-sector-to-build-back-better/>.
- *Leading the Way to a Net Zero Carbon Future* (April 2021) with four pillars guiding their path: Green skills for a net zero future; applied research and living labs; indigenous and nature-based solutions; leveraging our campuses. <https://www.collegesinstitutes.ca/resources/>.

#### Sub-Saharan Africa

- 2021 report on the available research on TVET in Sub-Saharan Africa between 2000 and 2019 with the focus on improvement and the development of TVET systems and research. Published by the German Office for International Cooperation in VET (GOVET, 2021).

- **Africa Journal of TVET**

Vol 5 No 1 (2020): Implementing the SDGs for Green Economies and Societies: The TVET agenda | Africa Journal of Technical and Vocational Education and Training (afrivet.org).

This volume contains papers presented at the 8<sup>th</sup> RVTI International TVET and Interdisciplinary Conference held on 20th to 22nd June 2019, with the Theme “Implementing the SDGs for Green Economies and Societies: The TVET agenda”. The annual themes are usually informed by a wide range of theoretical perspectives, innovative in form and content, and focused on both traditional and emerging topics that affect the world of work. All papers derive from explicit analysis of literature, the application of various research methodologies, data analysis and presentations. Most of them offer new facts or ideas to academics, policy-makers, and industry and TVET practitioners in varied contexts in driving towards the achievement of the Sustainable Development Agenda.

### South East Asia

- The Nisai Group, an international education provider, and PTB (Pakar Tenaga Bersatu) partnered with the South East Asian Ministers of Education Organization (SEAMEO) Regional Centre for Vocational and Technical Education and Training (VOCTECH) to bring innovation to TVET programmes and English literacy. As at 2021, SEAMEO comprises 11 member countries, which include Indonesia, Laos, Malaysia, The Philippines, Singapore, Thailand, Vietnam, Cambodia, Brunei, Myanmar and Timor Leste. Therefore, this partnership will have a global impact with sustainability at its core.

<https://www.fenews.co.uk/fevoices/40190-conquering-global-sustainability-through-education-and-tvet>.

The Education for Sustainable Development Department at the Education and Training Foundation (ETF) notes the difference “between education *about* sustainable development and education *for* sustainable development. Both are important – the former helps develop specialists in sustainability, but we also need the latter, ensuring that all learners have the knowledge, skills, values and attributes to create a more just and sustainable world”. Though TVET definitely provides skills *for* sustainable development, TVET *for* sustainable development is a major goal of this TVET Toolkit.

In summary, the 2030 Agenda for Sustainable Development has been a major factor in the decision to revise and update the Commonwealth’s TVET Toolkit. The fact that these globally recognised priorities to achieve sustainable development refer to Skills Development a total of ten times reaffirms the urgency to equip all men and women with the relevant skills needed for employment, decent jobs and entrepreneurship.



## 2. The TVET Assessment Framework

### 2.1 The Framework

The framework is structured around six key features that form the foundation of a strong TVET system. Responsibility for each of the key features is often shared between various government department and agencies, stand-alone authorities and research bodies, individual TVET institutions, employer associations and unions, and other stakeholders.

It is likely participants in the workshop will have some or more detailed knowledge of at least one or two of the key features; however, it is not assumed they will be familiar or directly involved in all of them.

This section provides a background to each feature which is then further described through a number of elements. It enables participants to familiarise themselves with the key tenants of the framework.

1. Governance	2. Employer engagement	3. Occupational standards	4. Qualifications framework	5. Quality institutions	6. Delivery and assessment
<ul style="list-style-type: none"> <li>• Roles and responsibilities</li> <li>• Policies and funding</li> <li>• Access and equity</li> </ul>	<ul style="list-style-type: none"> <li>• Determining skill priorities</li> <li>• Workplace training</li> <li>• Curriculum development</li> <li>• Support for the TVET sector</li> <li>• Support for employers</li> </ul>	<ul style="list-style-type: none"> <li>• Occupational profiles</li> <li>• Technical and capability skills</li> <li>• Standards based curriculum</li> <li>• Recognition of existing skills and knowledge</li> </ul>	<ul style="list-style-type: none"> <li>• TVET Qualifications</li> <li>• Qualifications Structure</li> <li>• Recognition and articulation</li> </ul>	<ul style="list-style-type: none"> <li>• National quality standards</li> <li>• Registration</li> <li>• Continuous improvement</li> <li>• Data collection and analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Teachers and trainers</li> <li>• Flexible and online delivery</li> <li>• Student support services</li> <li>• Teaching and assessment guidelines</li> <li>• Validation and moderation</li> </ul>

The elements within each feature are then placed on a matrix with indicators helping the user to decide which level of development their TVET system has reached. The following table provides an example of the five levels of development for assessing Element 3.1 on occupational profiles in TVET. The six features and their elements are described in the next section.

Elements	Level 1	Level 2	Level 3	Level 4	Level 5
3.1 Occupational profiles	There is no evidence of any occupational profiles	There is evidence of profiles for some but not all occupations	There is evidence of a wide range of occupational profiles but not all are current	There is evidence of occupational profiles which cover all industry sectors and are current	There is clear evidence that occupational profiles are regularly reviewed, updated and extended. New profiles are developed as required.

The six features and their elements are described in detail in the next section.

## 2.2 Six key features of a Strong TVET system

### 2.2.1 Governance

The first feature of a TVET system is effective governance. Governance describes the way in which the TVET system is managed and the way in which policies are developed, funded and put into practice.

The key elements of governance include:

1. defined roles and responsibilities,
2. policies and funding for skills development and
3. access and equity policies.

#### 1. Defined roles and responsibilities

At the core of effective governance is a commitment from the national and/or regional government, employers and education institutions to take ownership of TVET. The existence of national frameworks for interaction, co-operation and co-ordination among these stakeholders is essential to ensure consistency across the TVET system.

TVET reform “*will only be successful and sustainable if policy development, formulation and implementation are firmly based on broad ownership and fit within existing institutional contexts*” (Grootings, 2007).

Apart from the involvement of government ministries, departments and agencies, non-government stakeholders such as private training providers, employers, the workforce and their respective organisations, all have a crucial role to play in the governance of the system.

The Torino Declaration (European Training Foundation, 2011) supports the ideas of multi-level governance through dialogue between education, business and society, strengthened accountability and national ownership.

Conversely, the British Council’s work on the devolution of governance (British Council, 2018) highlights the trend towards greater autonomy of TVET institutions and the challenges this presents for the governance of the TVET system itself. Their report identifies three broad modes of governance:

1. Hierarchical, with fixed roles and a centralised top-down system;
2. Market-based, where competition and rewards drive the development of the system and
3. Networked, where a collaborative approach leads to joint decision-making and implementation.

These modes are not mutually exclusive and a combination of some or all of them are quite common throughout the world.

## 2. Policies and funding for skills development

A targeted “national skills development policy” that is adequately funded will help ensure TVET efforts are directly linked to and meet the current and future needs of society. These needs include enhanced productivity within the workplace, positive employment outcomes for graduates, environmentally sustainable practices, and greater flexibility and resilience.

The TVET landscape has changed dramatically in the last 10 years, even more so with the recent emergence of the COVID-19 pandemic and the global impact of climate change. TVET systems also need to respond to the increasing pace of innovation, particularly with the accelerating digitisation of many current and future occupations and job roles.

For example, the rapid take-up of electric vehicles and supporting infrastructure in many economies requires specific construction and maintenance skills. Conversely, the replacement of manual functions by robotic innovations has seen some jobs re-defined or made redundant.

Governments often look to TVET systems to meet these challenges, including a more rapid adoption of new technologies for course delivery, stronger links with employers, graduates with entrepreneurial skills and faster changes to their curricula.

Effective TVET responses are dependent on having a coherent national policy, capacity to change, and strong support for collaboration among all stakeholders. The TVET systems themselves need to be resilient. Resilience is defined as the capacity to prepare for disruptions, recover from shocks and grow from a disruptive experience (World Bank, 2021a, 2021b). While such a definition is focused on responses to climate change, economic shocks and natural disasters, it can be equally applied to TVET systems and the way they frame their policies and funding priorities.

A national skills development policy needs to be aligned to defined occupational roles to ensure “*solid bridges between the world of learning and the world of work*” (ILO, 2011). Bridges between economic, labour market and social policies are essential for an effective TVET system.

According to the ILO, countries with successful skills development policies and strategies have targeted the following objectives:

- A match between skill supply and demand (relevance and quality),
- Connections between training institutions and employers,
- Equality of opportunity in access to TVET and employment across all sectors of society,
- Shifting workers from declining or low-productivity activities and sectors into expanding and higher-productivity activities and sectors, and assisting them and enterprises to adapt and innovate, and

- Building and sustaining competencies for future labour market needs, such as innovation, technological change, economic diversification and competitiveness (ILO, 2011).

In a more recent publication (Chacaltana and Dasgupta, 2021), the ILO challenged governments with a series of articles under the heading “*Is the Future Ready for Youth?*”. The authors’ identified three broad shifts in an evolving labour market:

1. Competition for scarce well-paying and productive jobs,
2. The convergence of ideals and aspirations through digitisation and the impact of social media, and
3. The transfer of responsibility for skills development from government and society as a whole to the individual.

An excellent example of how a national skills policy can guide a TVET system is the Scottish College Network response to the United Nations SDGs:

1. Support Scotland’s efforts to achieve net zero climate emissions by 2045 or earlier if possible, with Scotland’s colleges aiming to achieve net zero by 2040 or earlier.
2. Embed environmental sustainability in our institutional strategies and set measurable targets.
3. Address the UN’s SDGs in our strategies.
4. Share best practice within and beyond the college/university sector.
5. Deploy our expertise and experience to combat climate change.
6. Contribute to public debate on climate change and use the power of our example to encourage others.
7. Work with Scottish industry, employers, public sector bodies and others to improve working practices and find practical solutions to climate change and to make our planet safe for future generations.
8. Encourage where appropriate, colleges to adopt the UK HE/FE Climate Commission’s “Climate Action Roadmap for FE Colleges”.
9. Each college will publish action plans to address on-campus and supply chain emissions, setting out what steps they will take over a 5-year horizon and beyond where possible, and what they aim to achieve to address the climate emergency.
10. Educating staff, students, employers and communities on the impact their daily lives and working practices have on the environment/ climate. While working with our partners, local employers and communities to ensure everyone is aware of their personal responsibility to our planet (CDN-Colleges Scotland-ESP, 2021)

The key role of a national skills development policy is to articulate a strong vision and sustainable outcomes for TVET, with mechanisms for continuous and

systematic renewal to meet these objectives. This should be widely distributed to raise the public profile of TVET and advocate for its important role in promoting economic prosperity and social cohesion (UNESCO, 2012).

Such a vision is never without its challenges. For example, the Australian TVET sector has often been regarded as a highly developed and effective system. A recent review of the Australian National Agreement for Skills Workforce and Development by the Australian Productivity Commission did not find any evidence of a system in crisis; however, further analysis identified a number of key issues (Karmel, 2021):

- The need to focus more on the “education” aspect of TVET,
- Stronger advocacy for the professionalisation of the teachers,
- Addressing the incoherence and unevenness of qualifications,
- Introducing independent assessment,
- Strengthening the public provider (TAFE) to allow them to become vocational universities, and
- Creating alternative models to supplement universities.

There is an on-going debate on whether TVET should be more geared towards Education or Employment. For many countries in the Commonwealth, there is a greater need to shift towards providing TVET for Employment due to rising youth unemployment, which, according to the UNESCO, is one of the most significant problems facing economies and societies. Furthermore, the OECD surveys suggest that both employers and youth consider that many graduates are ill-prepared for the world of work (UNESCO, 2016); hence, the need to make TVET a driving force to prepare youth with the right skills for employment.

A common global concern in the TVET sector is the lack of funding. The UNESCO-UNEVOC alliance organised a conference on the topic of “Diversifying the funding sources for TVET” in 2017 where concerns were voiced repeatedly that current funding for TVET is often barely sufficient to sustain the existing network of public training institutions, let alone its development to ensure equitable access for all.

According to UNESCO, diversification of funding is achieved mainly by involving enterprises, individuals and other innovative sources of funding (philanthropic sources, sponsors, etc.) and through public-private partnerships (PPPs) (UNESCO, 2014).

### 3. Access and equity policies

*“Substantial inequalities prevail in the access to work and work quality. These include key lines of segmentation among workers, according to geographical*

*location (between countries and between workers in urban and rural areas), sex and age. Moreover, new ILO data on labour income (for all workers, including the self-employed) demonstrate that, at the global level, income inequality is far greater than previously thought” (ILO World Employment and Social Outlook, 2020a, 2020b)*

In any national skills development policy, strategies to improve participation in TVET by disadvantaged learners is critical for improving productivity and economic growth (ILO, 2011). Similarly, UNESCO-UNEVOC noted that “*vocational skills development is often considered to be an effective strategy to empower marginal groups in a society by increasing their employability*”.

Disadvantaged learners include those “*with disabilities, marginalised and rural populations, migrants and those in situations affected by conflict and disaster*” (UNESCO, 2012). Additionally, improving women’s access and participation in TVET should be a high priority for all TVET systems.

The impact of COVID-19 has created even more challenges for TVET systems aiming to improve access and equity for their young people. As highlighted in a UNESCO-UNEVOC forum in 2020:

- *Young people’s work and studies have been severely affected by the pandemic, with consequences we are yet to see played out.*
- *Prior to the pandemic, one in five of those 15–24 years of age were not in education, employment or training (NEET). Following the pandemic, the situation has worsened and has exacerbated existing inequities because of differences in young people’s access to technology and work opportunities.*
- *In seeking to skill youth, TVET faces extra challenges in moving to distance and online learning because of the need to develop practical skills.*
- *Most TVET courses cannot be offered fully online because they include the development of practical skills. Simulations and virtual and augmented reality can assist but are not yet widely used and are limited in what they can achieve.*
- *While TVET systems had already recognised the need to train youth in soft and digital skills, the pandemic has increased this awareness. TVET systems need to be flexible to respond to different skills needs in the face of changing ways of working and new patterns of employment.*
- *Present experiences by students, institutions, employers and governments are moving systems towards a new normal for TVET. The pandemic has pushed all TVET stakeholders to move towards online learning. Those who were already on their journey to distance and online learning were*

*least affected and those without access to the technological infrastructure were, and still are, least able to take advantage of online opportunities.*

- *Moving to a desired new normal for future resilient TVET requires changes across TVET systems, particularly to ensure the equitable access needed to meet global skills development needs. TVET systems would benefit from moving to a new normal, blending online and practical and soft skills development. This blended new normal will require a changed mindset for all stakeholders within TVET systems, ranging from government agencies to learners (UNESCO-UNEVOC TVET Forum, July 2020).*

Unfortunately, access to skills training for these groups is still limited and must be rectified within the context of new global goals, particularly those that speak to SDG5 (*achieve gender equality and empower all women and girls*).

Governance and funding of TVET systems should also reflect the role TVET plays in integrating young people into the labour market and supporting them in leading healthy and productive lives. By providing access to the skills essential for being innovative and entrepreneurial, TVET systems need to be recognised as equal partners in the broader education system.

The status of TVET is often a concern for those within the system and those seeking further education. While TVET is certainly a second chance for many young people, it plays an essential role in lifelong learning, providing clear pathways for school leavers, graduates, employees and those who have been marginalised.

The ILO has produced a guide (ILO, 2020a, 2020b) which aims to help skills decision-makers and practitioners assess to what extent their TVET system is currently excluding certain individuals or groups, identifies underlying reasons and provides practical ideas on what could be done to redress inequalities.



### 2.2.2 Employer engagement

The second feature of a strong TVET system is the effective engagement between TVET institutions and employers. This includes small, medium and large enterprises; public and private companies; employer and employee associations; government agencies and not-for-profit organisations. In many countries and within specific regional areas, the government is often the largest employer and must take an active role in ensuring the TVET system meets its needs.

The UNESCO Shanghai Consensus (2012) recommends TVET frameworks should include incentive mechanisms which promote the active involvement of all stakeholders in planning, governance, curriculum development, qualifications, and assessment. Since 2012, the Network has been effectively mobilised to usher developments in their TVET systems and engaged in projects and activities intended to draw impact at the country and institutional levels. The UNEVOC Network has also been involved in the development of the UNESCO TVET strategy (2016–21) and participated in new flagship programmes including the UNEVOC TVET Leadership Programme and the Greening TVET Guide.

There are five key areas for employer engagement:

1. Determining skill priorities,
2. Workplace training,
3. Curriculum development,
4. Support for the TVET sector, and
5. Support for employers.

#### 1. Determining skill priorities

The role of employers is critical to ensuring TVET systems meet skills needs at the national, state (or regional) and local levels. Employer input in determining skills priorities is fundamental to keeping training relevant and ensuring institutional and financial arrangements build solid bridges between the world of learning and the world of work (ILO, 2011).

This increases the likelihood of workers learning “the right skills” required by the labour market, enterprises and workplaces and avoids shortages across economic sectors and industries. As part of the process in determining skill priorities, occupational profiles are often created. These profiles not only assist employers in recruitment and retention, but also inform young people as they prepare to leave their formal schooling.

Determining skill priorities requires access to and analysis of current data and future projections through Labour Market Information (LMI). Employers can provide some of this data but often rely on researchers and other agencies

to predict changes in the economic and social environment. For example, disruptions to global supply chains require quick and effective responses to skill priorities as do major environmental changes. There is, therefore, a need for accurate and regular LMI and analysis which can consist of various methodologies, including but not restricted to qualitative foresight, quantitative medium/long-term forecasting, scenario building on sectors' development and prospects, analysis of skill mismatch and the use of Big Data analytics. There are certainly issues regarding how LMI is collected and how accurate it is, and should be taken into account when forecasting future skill priorities within the TVET sector. From the examples given above, qualitative data sources are subjective; therefore, there is always a risk of overemphasising marginal issues. Nevertheless, it is a crucial source for reliable information on the evolving labour market.

The other issue related to obtaining and interpreting accurate LMI is the speed in which identified skill priorities can be translated into the delivery and completion of courses. Some competency-based systems can take up to 3 years to develop, accredit and then deliver specific courses which address urgent needs.

According to the ILO, the “green economy” has the capacity to generate some 24 million new jobs by 2030 in sectors such as renewable energy and energy efficiency, electromobility and sustainable agriculture. To leverage this employment potential, TVET must be aligned with the qualifications required and equip people to work in resource-friendly occupations. (ILO, 2018)

The impact of climate change and the subsequent transitioning to more sustainable economies with a low carbon footprint has been estimated to generate 15–60 million additional jobs and lift tens of millions of workers out of poverty (UNESCO-UNEVOC). Again, employers can contribute to and learn from analyses of future job profiles and current skill audits.

To provide a formal process for engaging with employers, many countries have established sector skill councils, industry skills councils or similar. Their composition, funding, authority and representation varies widely across different countries but are often most effective when they hold some power over funds for training and curriculum development (e.g. India Sector Skills Councils).

The Secretariat's *Mapping Sector Skills Development across the Commonwealth* (Commonwealth Secretariat, 2016) identifies four broad roles of sector skills councils:

1. Technical and strategic advisory role,
2. Development of sector-specific standards,
3. Accreditation, certification and assessment, and
4. Managing supply through funding or formalised links to other TVET structures.

Some sector skills bodies just take on an advisory role only while others combine several or all of the other roles.

Sector Skills Councils are also ideally placed to develop, sponsor and/or contribute to 'Environmental Scans' of their particular industry. These scans should aim to capture and describe the current level of activity within a sector, including labour market movements and quantifiable outcomes in moving to more sustainable practices. The scans should also draw upon research to predict labour market shortages, redeployments and redundancies, and specific skills needs in the short, medium and long term.

In February 2019, the OECD produced a report *Getting Skills Right: Future-Ready Adult Learning Systems*. As described in the summary,

*With digitalisation, deepening globalisation and population ageing, the world of work is changing. The extent to which individuals, firms and economies can harness the benefits of these changes critically depends on the readiness of adult learning systems to help people develop relevant skills for this changing world of work.*

Digitalisation of courseware, course delivery, student recruitment, assessment tasks, and on-going monitoring and support for students is now having a major impact on TVET systems. Equally, teacher and trainer recruitment, professional development and day-to-day communication within the TVET institutions require a much higher level of digital and online literacy for teachers, trainers, managers and regulators. Digitalisation is one major factor accompanying Industry 4.0 which is defined by UNESCO as:

*a total transformation of all sectors into new systems and/or ways of life. The convergence of the physical, digital and biological worlds has much to do with technological advances which are viewed as 'disruptive technologies', including nanotechnology, AI, robotics, bionics, genetics and 3D printing. Under Industry 4.0, the distinction between industry and services becomes less relevant as digital technologies are connected with industrial products and services and transformed into hybrid products that are neither exclusively goods nor services.*

This level of innovation within the TVET system not only reflects the way industry as a whole is changing but can position TVET as a leader of change. When determining skill priorities, a strong TVET system can assist in identifying changes and trends including increasing automation of simple tasks, more complex workflows involving multidisciplinary teams and increased workplace flexibility. (ILO, 2020a, 2020b)

## 2. Workplace training

Integrating learning with work is fundamental to effective TVET training programmes. This integration ensures students can apply their skills and knowledge

in real work situations and are work-ready when they graduate. The maturity of a TVET system depends on the extent to which training is based in the workplace, so learning can occur through work in addition to training in TVET institutions.

A mature and effective TVET system has evidence of partnerships for workplace training, where customised training strategies are developed by enterprises in collaboration with their TVET training partners. These partnerships address specific workforce capability needs and ensure training provision is incorporated into business operations. Training is adapted to suit the enterprise and workers can incorporate work-based delivery, onsite training rooms, offsite classrooms, and online and simulated training.

Such partnerships also provide opportunities for TVET teachers and trainers to keep up to date with current business practices, technological developments and cultural shifts.

This can be extended to involve other partners in the area including local councils, community groups, schools, universities, government agencies. The creation of such an ecosystem of learning and development, or skills ecosystems, has become an increasingly popular topic for discussion, with a strong focus on supporting low wage employees and small and medium enterprises.

The OECD identifies seven actions which help adult learning work in a social partnership:

- Action 1: Anticipate training needs together.
  - Action 2: Establish joint priorities in adult learning strategies.
  - Action 3: Negotiate collective agreements for adult learning.
  - Action 4: Promote a positive learning culture.
  - Action 5: Consider employer levies to finance adult learning.
  - Action 6: Use the capacity of all partners to deliver training.
  - Action 7: Make quality assurance a joint responsibility
- (OECD, 2019).

Apprenticeship programmes can also be effective vehicles for addressing skills needs in the workplace. While Australia, Canada and the United Kingdom have had strong apprenticeship systems in place for a while, other Commonwealth member countries such as Pakistan and Ghana are reinvigorating or introducing new apprenticeships systems (British Council, 2020). A major challenge is to ensure employer engagement in whatever system is developed, so that learning in the college is complemented by actual learning in the workplace.

### 3. Curriculum development

Further to the identification of skills priorities and occupational profiles, engagement by employers is required for the development and delivery of TVET

training to ensure content and teaching practices meet the needs of enterprises (CEDEFOP, 2013).

Arrangements to facilitate this engagement can be formalised at the national, regional or state level through sector skill councils or reference groups. While this level of involvement in curriculum development has traditionally been focused on specific qualifications at specific levels, often informed by a qualification framework, there is an increasing demand and emphasis on just-in-time training.

To recognise achievement at a level well below a full qualification, many industry sectors and TVET institutions are jointly developing micro-credentials. This can also encompass recognition of employer or sector-driven training and credentialling such as hotel chains accrediting their own in-house training programmes, software companies offering online training and accreditation, and manufacturers delivering and accrediting product knowledge and servicing.

For example, a recent analysis of micro-credentials in Australia (NCVER, June 2021) identified 2.6 million students enrolled in short, non-qualification training accounting for 62.7 per cent of Australia's TVET students. Employers paid for more than half of this training with 86.2 per cent of students in employment and 75 per cent studying with a private provider. Most of the micro-credentials were tailored around regulation and skills maintenance covering such areas as CPR, first aid, safe work practices and responsible service of alcohol.

Engagement by employers in the provision of local courses can be achieved through representation in the governing bodies of TVET institutions, through small industry advisory boards for specific courses, through regular consultations and taskforces with industry, and by involving industry specialists in course delivery.

The ILO (2011) cites improved co-ordination between prospective employers and TVET institutions at the local level, particularly in high-growth industries, as essential to avoiding skill shortages, along with increased public provision of training and greater participation by students in workplace learning.

#### 4. Support for the TVET sector

Employer involvement in TVET can take many forms including

- provision of paid or unpaid work placements or work experience for students who are studying in TVET institutions,
- participating in apprenticeship and other trainee programmes,
- support through direct funding or indirect funding. For example, student scholarships, sponsorship of student awards, donation or access to equipment and facilities,

- joint research and innovation initiatives with TVET institutions, universities and independent researchers,
- pathways into employment for students who graduate, and
- jointly run facilities on campus such as an automotive centre, bakery, hotel, restaurant, repair workshop, survivor pod simulator for mining and augmented reality facilities for high tech skills.

### 5. Support for employers

The relationship between employers and TVET institutions is often one way, where TVET is seeking work placements, access to facilities or in-kind donations. In many cases, employers need and would value support including

- subsidised trainee wages either in a voucher form or through a formal apprentice/trainee programme,
- guidance on skill requirements for new and emerging technologies,
- skills audits to establish training needs among their current workforce,
- management training on implementing effective workforce training,
- other management training programmes,
- implementing sustainable practices within the workplace, and
- building resilience and flexibility across the whole organisation.

Where there is a clear benefit to both parties, the relationship become much more sustainable.



### 2.2.3 Occupational standards

The third feature of a strong TVET system is the development and maintenance of occupational standards which inform and guide what is taught. Traditionally, an occupational standard has been defined as the knowledge, skills and attitude required to perform a specific task or role in the workplace. Referred to as a competency-based training (CBT) system, the focus is on demonstrating a specific occupational outcome, according to clearly defined assessment criteria.

A distinction between competence and capability also needs to be recognised:

*“The current focus of training a person to conduct formalised tasks or roles restricts training to current practice and limits the knowledge acquired to subjects that can be immediately applied and observed within work practice. This narrow focus limits students’ capacity to apply knowledge in new contexts, constraining innovation.*

*Capabilities refer to people’s potential to act and make choices in their lives, as distinct from an outcome that may arise from a particular choice. It aims to build capabilities that can be exercised in different ways. Capabilities also cover the individual, social and environmental resources needed to enable people to exercise choice.” (NSW BVET, 2011)*

Other definitions, which broadly link to the term Capabilities, may include Core Skills, Key Skills, Twenty-first Century Skills, Employability Skills or Soft Skills.

One of the first sectors to embrace CBT and assessment was the nursing profession. Below is a quote from research carried out in 2014 by Jane O’Connell et al. (2014, Abstract):

*Competencies have been described as appropriate for practice in stable environments with familiar problems. Increasingly, competencies are being designed for use in the health sector for advanced practice such as the nurse practitioner role. Nurse practitioners work in environments and roles that are dynamic and unpredictable, necessitating attributes and skills to practice at advanced and extended levels in both familiar and unfamiliar clinical situations. Capability has been described as the combination of skills, knowledge, values and esteem which enables individuals to manage change, be flexible and move beyond competency.*

Key elements of occupational standards include:

1. Occupational profiles
2. Technical and capability skills
3. Standards-based curriculum
4. Recognition of existing skills and knowledge

### 1. Occupational profiles

A strong TVET system has a clear idea of the types of occupations their graduates may be suited for. To assist both teachers and students, profiles of specific job roles are an essential part of the training programme.

However, such profiles are not static and the TVET system needs to have the flexibility to update, re-write or even re-imagine specific occupations. In some cases, such profiles are very country-specific due to the nature of their economy and broader society. In other cases, the profiles need to align with global standards to enable labour mobility, career advancement and to maintain the integrity of specific global supply chains.

Occupational profiles focus more on the capabilities required of employees, rather than just a defined and limited set of technical skill standards. Combined with technical competence, occupational profiles are more adaptable to the changing nature of work and the environment.

### 2. Technical and capability skills

Occupational profiles provide a broad understanding of the nature of the work. To further refine the profiles so as to inform the development of curricula (i.e. the teaching programme), a set of skills needs to be defined, including the standards required to indicate competence and capability.

For the purposes of this toolkit, we have separated technical skills from capability skills. While the latter is often included in the “attitude” part of CBT, and sometimes within the “skills” section, they are often overlooked, assumed or taught separately from the more technical aspects of the occupation.

Technical skills focus on the manual performance of a set of tasks. In most cases, the student can either perform the task or not, which generally means a grading of such performance is not required. Occupational standards often define in great detail not just the task itself, but the elements which make up the task, the performance criteria by which they will be judged, and the conditions under which they must demonstrate competence. Such an approach will *“codify, standardise, assess and certify skills so that levels of competence can be easily recognised by social partners in different labour sectors across national, regional and international labour markets”* (ILO, 2011).

Capability skills focus the learner on becoming an effective and efficient work colleague, able to transfer their existing skills to new environments or situations, showing an entrepreneurial approach to problem solving, demonstrating resilience when under pressure and acting and working to promote sustainable work practices. A capable person not only demonstrates the technical expertise required for their work but also displays a set of positive

personal qualities, traits, attributes, habits and attitudes that can be used in many different types of jobs.

### 3. Standard-based curriculum

Occupational standards describe the skills required for a specific occupation or workplace role. Each standard is often broken down into a set of competencies that specify the required knowledge, technical skills and personal attributes. These standards are primarily used as the basis of assessment during training or as part of a performance review.

Alternatively, the standards may be expressed as a set of criteria or a list of responsibilities that are often used in job descriptions or as part of the recruitment process.

Occupational standards do not by themselves form a curriculum, syllabus or training programme. TVET institutions must develop their own teaching and assessment programmes based on the profiles and skills required. One of the mistakes in implementing CBT has been to treat the standards and associated information as a step-by-step teaching programme where individual standards are taught, assessed and then ticked or not ticked without sufficient emphasis on real-world application and longer-term skills and knowledge retention.

In most cases, each standard is inter-dependent on other standards and as such should be taught and assessed holistically, with gaps in specific skills identified for further learning and assessment. To support this, TVET systems should provide clear guidance on designing curriculum frameworks, developing learning resources and teaching strategies.

### 4. Recognition of existing skills and knowledge

A process which provides “recognition of prior learning” or “recognition of existing skills” is an essential element of a strong TVET system. This process should be formalised, clearly articulated and made available to all students. It allows for students to “fast track” their learning, either at a subject level or at a higher qualification or certification level. There is little value to the student or to the wider community to restrict their progression based on not what they already know and can do but what course they have enrolled in.

This means an experienced but self-taught builder or motor mechanic can complete a diploma-level qualification in significantly less time than it takes for someone with no experience or knowledge.

The emergence of micro-credentials in many TVET systems is one way of simplifying and enabling such recognition.



#### 2.2.4 Qualification framework

The fourth feature of a strong TVET system is an effective national qualification framework. This framework describes the formal recognition of achievement through a set of certified TVET qualifications, the different levels of qualification and the pathways to and from the TVET system.

Key elements include:

1. TVET qualifications
2. Qualification structure
3. Recognition and articulation

##### 1. TVET qualifications

Once a set of occupational profiles has been established and then further defined by sets of technical and capability skills, these need to be aligned to specific levels of achievement and expressed as formal courses or curricula. Completion of a course then results in the awarding of a credential.

Depending on the overall education system in a particular country, credentials can range from a Statement of Achievement (micro-credential) all the way up to a Masters in Technical Proficiency.

Traditionally, credentials in a TVET system were restricted to the Diploma and Advanced Diploma level; however, the emergence of Universities of Technology and Technological Institutes has blurred these distinctions. Equally, many traditional universities have begun offering TVET style diplomas and graduate diplomas.

The other major change in some TVET systems is the move away from a “time-served” approach to a competency achieved/not achieved approach. This enables the learner to gain a credential based on what they have achieved rather than how long they spent studying, and can lead to a more flexible approach to enrolments, recognition of prior knowledge and graduations.

Some TVET systems combine such a flexible approach with a “nominal hours” component which gives the expected number of hours required to complete the course but allows for faster completions.

There is no perfect or universally accepted system of TVET qualifications; however, the ILO has produced a number of job-specific competency standards which users can modify to suit their local conditions. (ILO, 2016).

Once a TVET system has developed their set of qualifications, these need to be aligned with other qualifications and credentials offered by schools, universities and other education providers. This leads to the development of the next Key Element, a qualification structure.

## 2. Qualification structure

A qualification structure describes the range and levels of qualifications within the TVET sector, as well as the relationship with school and higher education qualifications. A global inventory of regional and national frameworks and structures can be found on UNESCO’s website: <https://en.unesco.org/themes/skills-work-and-life/qualifications-frameworks>.

In Volume 1 of the Global Inventory of Regional and National Qualification Frameworks (ETF, 2019), the structures are grouped according to specific themes: comparing and recognising learning outcomes; digital credentials; recognition, validation and accreditation; connecting people to national qualification frameworks.

The majority of structures include approved qualifications from authorised institutions and are primarily managed by government entities. The challenge is also to incorporate or, in some way, recognise other non-formal and informal training, employer-led certification, sector-based licensing and other forms of training which sit outside the mainstream TVET sector. An effective “recognition of prior learning” process goes some way to encompassing such training as does the incorporation of external certification programmes into mainstream TVET courses.

## 3. Recognition and articulation

TVET and skills development should not be independent or isolated from other parts of the education system. Articulation from school-based learning to mainstream TVET courses is important, and there are many examples of TVET courses being introduced at the secondary school level to support such

a transition. Equally, the ability to have the skills gained by completing a TVET qualification should be recognised by universities and other higher education institutions and credit and articulation given where appropriate.

Conversely, many students complete a university-level qualification and then enrol in a TVET course to gain specific workplace skills and recognition. Therefore, a national framework must have the flexibility for learners to move both horizontally and vertically within the education and training system and have their acquired skills given the appropriate level of recognition.

This flexibility also applies to the emergence of micro-credentials, which may not easily sit within a broad scale of 1–10 for example.

A further challenge for TVET systems is to have their national qualifications recognised internationally. This enhances student mobility, transnational skills development and goes some way to meeting labour market demands across territories.

The UNESCO Shanghai Consensus (2012) promotes the idea of lifelong learning, which includes the acknowledgement of prior learning and the transferability of qualifications from one system to another. It states that “*the accumulation and transfer of individual learning, recognition and validation of qualifications, including at the international level*” facilitates the progression of learners from TVET to higher education as part of lifelong learning strategies.

The 2030 SDGs also provide clear targets that need to be built in to any qualification framework and supporting policies (see Section 1.4.4).



### 2.2.5 Quality institutions

A TVET system is only as strong as the institutions that provide the education and training. A strong institution provides high-quality teaching and learning and supports all learners during their studies. All institutions within the system need to meet set standards of delivery, management and responsiveness to the needs of the community. This includes strong links with employers, relevant and up to date courses, appropriate facilities, and highly trained teachers and trainers.

The fifth feature of a TVET system is quality institutions. International experience shows that gains in productivity, employment and development are directly linked to the quality and relevance of TVET training institutions (ILO, 2011).

Key elements of quality institutions include:

1. National quality standards
2. Registration process
3. Continuous improvement
4. Data collection and analysis

#### 1. National quality standards

High-quality TVET institutions are supported and guided by the implementation and regulation of quality standards. Nationally developed and maintained standards are particularly important for those institutions that wish to deliver nationally approved qualifications. The national standards can also be used as a pre-requisite for the funding of courses, new or upgraded facilities, and other initiatives.

Institutional standards cover the essential requirements for initial and continuing registration. TVET institutions provide report on their performance on a regular basis and may be subject to site visits by the quality authority.

The standards should include the following indicators of quality provision:

- Learner engagement: a regular survey of students which assess the extent to which students engage in learning activities, their perception of the quality of the training and the support they receive.
- Employer satisfaction: a regular survey of employers to obtain feedback on the quality of the skills developed during training including their relevance to the workplace.
- Course or module enrolments and completions: this data should capture the number of enrolments in specific courses including the number of modules or subjects, the rate of completions, and the number and level of certificates or qualifications awarded. In some cases, the number of hours completed may also be required, although a “time-served” approach may not accurately reflect student achievement.

- Career/education progression: this data should note students' progression into employment, or into further learning, after the completion of their course.

## 2. Registration

A registration and approval process for TVET institutions needs to be transparent and applicable to all training organisations that wish to deliver nationally approved qualifications and gain access to funding.

Across the broad TVET sector, there may be organisations that do not seek such registration and operate solely on a fee-for-service basis, relying on their reputation for enrolments. However, many private providers, companies, schools, universities, community groups and other entities should be able to register their TVET programmes and gain national recognition for their graduates' achievements.

In some cases, a TVET provider may be restricted in what they offer due to limited facilities or unqualified teachers or trainers. For example, a provider may gain registration, but the scope of their registration is restricted to certain courses. Becoming registered should not enable a business skills college to suddenly offer cooking and catering courses in their offices and training rooms.

In other cases, a TVET provider or institution may deliberately focus on one specific industry sector. This often takes the form of a Centre of Vocational Excellence (CoVE). There are various definitions and structures of such CoVEs and their relationship to existing TVET institutions must be aligned with *“the policy objectives, the funding, the regulative, framework and current capability of existing institutions”*. (ETF, 2020)

Some of the features of a CoVE include the desire for excellence rather than competence, stronger links with employers, specialised equipment and teachers, drivers for modernisation and change. However, they can create imbalances across the broader TVET system – reduced funding for other TVET colleges which offered the same courses, reduced access for learners and a dependence on specific employers or companies.

## 3. Continuous improvement

Maintaining registration should be dependent on TVET providers continuing to meet the national standards. This requires accurate reporting and continuous improvement. Such improvements may include:

- updates to the curriculum to reflect changes in the nature of the relevant occupation/s,
- supported professional development for teacher and trainers,

- expansion of course delivery options including online and remote learning,
- addition of new levels of qualifications,
- enhanced articulation agreements with other providers including universities and
- stronger links with employers and industry associations.

One area which requires constant monitoring and evaluation is in the area of assessment practices. Continuous improvement in the way in which students are assessed can be supported through moderation exercises with other TVET providers and through validation exercises with employers.

#### 4. Data collection and analysis

Data capture and analysis is essential for monitoring the performance of the TVET sector, for matching skills demands with supply, for identifying gaps in quality and for identifying the type and range of training being provided. The data needs to capture the number of course completions and whether students have progressed into further study and/or employment. Employment outcomes need to show the type of employment gained including the industry sector, part or full time and whether the employment is temporary, contract or permanent.

There must also be a commitment to gather disaggregated data on the profile of the students, particularly in terms of gender, disability, rural/urban location, age, socio-economic status, cultural and religious backgrounds, and levels of disadvantage. This data should then inform policies and funding which open up access to TVET for more marginalised groups.

Data is also required on the effectiveness of skills training in supporting and promoting a more sustainable approach to work and lifestyle.

Information systems are required which generate, analyse and disseminate reliable information. A clear communication strategy where all stakeholders have access to the most up to date information is essential. Input to these information systems can come from a variety of sources including employers, industry groups, TVET providers, students, community groups, researchers, national and international agencies, and governments.

*By using up-to-date information, those working in education and training can access the match between the skills they are teaching and those in demand in the workplace. When that information is put at the disposal of young people and workers by employment and vocational guidance services, it can help them to make better-informed choices about education and training. (ILO, 2011, 5)*

CEDEFOP (2013) reiterates the importance of efficient mechanisms to promote feedback between TVET systems and their labour markets. Environmental scans carried out by industry sectors, updated occupational profiles, course completions and employment outcomes, and detailed research on new initiatives all inform the future directions of TVET.

CEDEFOP recommends policy-makers ensure existing feedback mechanisms are in place, the flow of information is not slowed by bureaucratic consultations and there are clear roles for TVET institutions to use this information.

A number of countries have established a stand-alone data research facility which collects, analyses and disseminates information relevant to the TVET sector. For example, the National Centre for Vocational Education and Research (NCVER) in Australia, the World Bank's Regional TVET initiative in 16 sub-Saharan countries, CEDEFOP in Europe, China's Central Institute for Vocational and Technical Education, and TVET national associations of colleges and institutes such as TAFE Directors Australia, Colleges and Institutes Canada (CICan), and the UK's Association of Colleges.



#### **2.2.6 Delivery and assessment**

The sixth feature of a TVET system is the delivery and assessment of training and education. The delivery of training can take many forms including face-to-face, work-based and online, and the teachers and trainers need to be highly skilled in all forms. The assessment of student's abilities and skills needs to be accurate, fair and equitable, and a true reflection of their achievement.

The key elements of this feature include:

1. Teachers/trainers
2. Flexible and online delivery
3. Student support services
4. Teaching and assessment guidelines
5. Validation and moderation processes

### 1. Teachers and trainers

The quality of vocational teacher education is recognised as a major contributor to the levels of education and skills in the workforce and productivity and well-being of societies (Schroder, 2014).

*Vocational education system development must recruit experienced vocational personnel with high qualifications and principal values. It is essential therefore to turn vocational teachers and personnel collectively into change agents, into those who take an active role in the design of their work and in so doing take on an active role in society. (ibid.)*

Effective policies are required at the national, regional and local levels to develop and improve teacher and learning practices that improve quality and ensure equity in TVET. This feature may also include:

- specific standards for teaching,
- mandated qualifications and career pathways for teachers and trainers,
- structured and continuing professional development including return-to-industry and teacher exchange programmes,
- structured moderation and validation activities and
- incentives and support systems for teachers.

A strong TVET system employs teachers and trainers who have direct and recent industry experience, can demonstrate a learner-centred approach to teaching, can construct and deliver a course of study that enables students to gain both technical and capability skills for the workplace and who constantly reflect on their students' progress and achievement.

Some TVET systems have given a higher priority to teachers and trainers with graduate and post-graduate qualifications, partly to improve the perceived status of their institutions and qualifications. This is not necessarily an approach that meets the needs of either the students or their future employers, and an emphasis on industry experience should never be discounted.

Some TVET systems enable managers, supervisors and operators from industry to participate in the training as guest lecturers, while others enable their teachers

to train in the workplace. On-going professional development for teachers, trainers, employers and supervisors should not be left to the individual but rather fully supported by the TVET system itself.

This is particularly important as new technologies in industry and in course delivery emerge and societal priorities such as moving to a low carbon environment and supporting a more sustainable future put pressure on the TVET system to respond.

## 2. Flexible and online delivery

Flexible course delivery includes a range of delivery modes, which, when combined with a traditional classroom or workshop-based delivery, offer the student a variety of options as to when, where and how they undertake their course.

Flexible delivery may include part-time and full-time options, work placements, on-the-job training, self-paced learning, fast-track options for those with established skill sets, flexible enrolment periods, and individual and group learning.

All of these options provide many challenges for timetabling, resource allocation, enrolment periods, assessment events and teacher employment. TVET systems need to constantly review their progress and the impact certain changes may have on the quality of the teaching and the quality of the students' experience.

This is most recently highlighted with the impact of the COVID-19 pandemic where many colleges and workplaces throughout the world closed down and online learning became the only option for continuing the training programmes.

See OECD's report *VET in a time of crisis: Building foundations for resilient vocational education and training systems*: <https://doi.org/10.1787/efff194c-en> and RMIT's blog post on future scenarios based on four key areas: Health and well-being; education and training; economy and livelihood; community: <https://unevocrmit.org/>.

Up to the pandemic, online learning was generally seen as part of a blended learning model where classroom, workshop and workplace learning were supplemented and supported by online learning modules. Some providers offer fully online courses, most of which focus on sectors which are less trade based such as carpentry, painting and decorating, cooking and plumbing.

However, with the emergence of new online learning technologies such as synchronous video and virtual classrooms, augmented reality modules, online learning platforms, social media platforms and increased accessibility through mobile phones, many TVET systems have moved much more quickly into an online environment for many of their courses.

In 2020–21, the challenges were immense, not the least for many countries with low incomes, limited bandwidth, scarce resources suitable for an online learning environment and limited teacher skills in using the technologies.

A strong TVET system needs to address all these issues, providing support and resources as well as on-going research into the effectiveness of various approaches.

There is a wide range of resources to support the adoption and extension of online learning including studies conducted by the European Training Foundation (ETF, 2021), who have developed a tool for Self-Reflection on Effective Learning by Fostering Innovation through Educational Technology (SELFIE), guidelines on scaling up the integration of such technologies, and lessons learnt from a number of trials and pilot programmes.

### 3. Student support services

The provision of student support services enhances the student experience. Student support services are those that are offered to the student outside of the teaching and learning experience. Such services may include counselling, extracurricular activities, a student union, support for those with a disability, academic support and career guidance.

Careers advice and guidance for current and future students is essential. While some countries have extensive websites offering guidance and links to a wide range of careers, personal advice can make a big difference to a student's choice of subjects and further pathways towards employment. This advice needs to be available throughout the student's period of study and where appropriate, for their parents or carers.

The TVET system needs to be flexible enough to enable mid-course changes, credit transfers and some form of certification for work completed should the student find employment before the end of their course.

A strong emphasis on career guidance will enhance the status of the TVET institute and promote TVET as both a first choice and a second chance.

Specific support for international students and those from other regions should also be provided.

### 4. Teaching and assessment guidelines

Teaching and assessment guidelines are an important part of teaching and learning. Guidelines should address the range of assessment methods available to the teachers and trainers. Teaching guidelines set out the requirements for effective learning including the range and type of facilities needed, the conditions under which tasks should be carried out, and the health, safety and sustainable practices to be followed.

Assessments can occur both during (formative) and after (summative) the training. The purpose of formative assessment is to monitor students' progress, providing feedback on areas that need further study or practice. On-going assessments such as these can be gathered together into a learning portfolio and may form the basis of the students' final results.

Summative assessment is the final conclusion of the students' achievement. It may take the form described above, or judged by the completion of a test, exam, demonstration, workplace report or a combination of all of these. Final assessment reports can take the form of a list of competencies demonstrated and achieved to the required standard, a grading based on levels of achievement, a summary of skills achieved or the simple awarding of the appropriate qualification, certificate or licence.

### 5. Validation and moderation processes

Validation and moderation processes ensure the assessment of students' work is valid, reliable and fair. It refers to a quality review process that is coordinated, ideally by an external body which has the authority to review and moderate specific college's assessment processes and outcomes.

The external body has overarching authority to make recommendations for changes and is responsible for monitoring whether such changes have been implemented (NSSC, 2010).

At a less formal and regulatory level, moderation exercises between teachers and trainers from different colleges or institutes can be a very useful professional development event. They can share the different approaches to training and assessment and ensure the standard of achievement they expect is in line with other colleges.



## 2.3 Five levels of development

Five levels of development are applied to the six features of the TVET Assessment Framework. Each level builds on the previous stage where Level 1 indicates that the feature does not exist and Level 5 represents a well-established feature with review and improvement processes in place as outlined below. To be at Level 2 assumes all of the elements at Level 1 have been achieved; to be at Level 3 assumes all of the elements at Levels 1 and 2 have been achieved and so on.



1. Indicates that there is no evidence of the TVET feature under question.
2. Indicates that there is some evidence of the feature under question, which may be localised at an individual institution or regional level, or in one or several government departments where TVET is part of their portfolio.
3. Indicates that the feature under question exists at a national level, but there are weak horizontal and vertical connections between policies and stakeholders and inconsistent implementation.
4. Indicates that the feature has been implemented at a national level with established lines of communication and engagement by stakeholders where required.
5. Indicates that the feature has been implemented nationally with established lines of communication and engagement by all stakeholders. There is also a systematic process of review and evaluation, the results of which are used to continually improve the responsiveness and effectiveness of the TVET system. Note that scoring level five indicates an achievement of all aspects of levels 1–4.

### 3. References

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- British Council (2018) *The Role of Institutional Leaders*.
- British Council (2020) *Supporting the Development of Quality Apprenticeships – I-WORK Programme Final Report*. Available at: [https://www.britishcouncil.org/sites/default/files/i-work\\_impact\\_report.pdf](https://www.britishcouncil.org/sites/default/files/i-work_impact_report.pdf).
- CDN-Colleges Scotland-ESP (2021) *Scottish Colleges' Statement of Commitment on the Climate Emergency*. Available at: [Scottish-Colleges-Climate-Emergency-Commitment.pdf](https://cdn.ac.uk/Scottish-Colleges-Climate-Emergency-Commitment.pdf) (cdn.ac.uk) (Accessed March 2022)
- CEDEFOP (2013) *Renewing VET Provision. Understanding Feedback Mechanisms between Initial VET and the Labour Market*. Luxembourg: European Centre for the Development of Vocational Training (Cedefop). Available at: [http://www.cedefop.europa.eu/EN/Files/5537\\_en.pdf](http://www.cedefop.europa.eu/EN/Files/5537_en.pdf) (Accessed June 2021).
- CEDEFOP (2018) *Skills for Green Jobs: 2018 Updates*.  
[http://www.cedefop.europa.eu/files/denmark\\_green\\_jobs\\_2018.pdf](http://www.cedefop.europa.eu/files/denmark_green_jobs_2018.pdf);  
[http://www.cedefop.europa.eu/files/estonia\\_green\\_jobs\\_2018.pdf](http://www.cedefop.europa.eu/files/estonia_green_jobs_2018.pdf);  
[http://www.cedefop.europa.eu/files/france\\_green\\_jobs\\_2018.pdf](http://www.cedefop.europa.eu/files/france_green_jobs_2018.pdf);  
[http://www.cedefop.europa.eu/files/germany\\_green\\_jobs\\_2018.pdf](http://www.cedefop.europa.eu/files/germany_green_jobs_2018.pdf);  
[http://www.cedefop.europa.eu/files/spain\\_green\\_jobs\\_2018.pdf](http://www.cedefop.europa.eu/files/spain_green_jobs_2018.pdf);  
[http://www.cedefop.europa.eu/files/uk\\_green\\_jobs\\_2018.pdf](http://www.cedefop.europa.eu/files/uk_green_jobs_2018.pdf)
- Chacaltana & Dasgupta (eds) (ILO) (2021) *Is the Future Ready for Youth? Youth Employment Policies for Evolving Labour Markets*.
- Commonwealth Secretariat (2013) *Analysis of Technical Vocational Education and Training Systems in Five Commonwealth Countries*. Available at: <https://thecommonwealth.org/sites/default/files/inline/TVET%20Report-F.pdf> (Accessed November 2021).
- Dundee City Council (2021) *Return to the Workplace Survey* (15 June 2021, unpublished).
- European Training Foundation (2011) *Torino Declaration*. Available at: [http://www.etf.europa.eu/webatt.nsf/0/6962215F9248640DC12578AF002F1BFA/\\$file/Torino%20declaration.pdf](http://www.etf.europa.eu/webatt.nsf/0/6962215F9248640DC12578AF002F1BFA/$file/Torino%20declaration.pdf) (Accessed June, 2021).
- European Training Foundation (2019) *Global Inventory of Regional and National Qualification Frameworks* (Volume 1).
- European Training Foundation (2020) “CoVEs – An Engine for VET Development”.
- European Training Foundation (2021) “SELFIE Tool for Digital Capacity in Education and Training Systems, including Methodology and Lessons Learnt”.
- GOVET (2021) “Technical and Vocational Education and Training in Sub-Saharan Africa: A Systematic Review of the Research Landscape”. Available at: <http://www.zenodo.org/record/4264612#.YMhNPkzaHs> (Accessed June 2021).
- Grootings, P. (2007) *Discussing national qualification frameworks – facilitating policy learning in practice*. In EFT (2007) *ETF Yearbook 2007: Quality in Vocational Education and Training: Modern Vocational Training Policies and Learning Process*. European Training Foundation, pp. 27–40.
- ILO (2011) “A Skilled Workforce for Strong, Sustainable and Balanced Growth”, G20 Training Strategy developed by the International Labour Organisations. Available at: [http://www.skillsforemployment.org/wcmstest4/groups/skills/documents/skpcontent/mwdf/mdix/~edisp/fm11g\\_021626.pdf](http://www.skillsforemployment.org/wcmstest4/groups/skills/documents/skpcontent/mwdf/mdix/~edisp/fm11g_021626.pdf) (Accessed June 2021).
- ILO (2016) *Updated guidelines for development of Regional Model Competency Standards*. Available at: [https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms\\_496514.pdf](https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_496514.pdf)
- ILO (2018) *World Employment and Social Outlook 2018: Greening with Jobs*. Available at: [https://www.ilo.org/global/publications/books/WCMS\\_628654/lang--en/index.htm](https://www.ilo.org/global/publications/books/WCMS_628654/lang--en/index.htm) (Accessed June 2021).
- ILO (2020a) *World Employment and Social Outlook; Trends 2020*.
- ILO (2020b) *Skills for Youth Employment*. Available at: [https://www.ilo.org/skills/areas/skills-for-youth-employment/WCMS\\_755869/lang--en/index.htm](https://www.ilo.org/skills/areas/skills-for-youth-employment/WCMS_755869/lang--en/index.htm) (Accessed June 2021).

- ILO (2021) “Skills Development in the Time of COVID-19: Taking Stock of the Initial Responses in Technical and Vocational Education and Training”. (Accessed 19 January 2021).
- Karmel, T. (2021) National Agreement for Skills and Workforce Development Review, Productivity Commission – A Reflection Mackenzie Research Institute (May 2021). Available at: <http://www.holmeslgen.edu.au>.
- National Skills Standards Council (2010) Available at: [http://www.nssc.natese.gov.au/\\_\\_data/assets/pdf\\_file/0007/54997/Assessor\\_Guide\\_-\\_Validation\\_and\\_Moderation.pdf](http://www.nssc.natese.gov.au/__data/assets/pdf_file/0007/54997/Assessor_Guide_-_Validation_and_Moderation.pdf) (Accessed June 2021).
- NCVER (2021) *An Analysis of ‘Micro-credentials’ in VET*. Available at: <http://www.ncver.edu.au> (Accessed June 2021).
- Nichols, M.R. (2019) *Must-Have Skills for Industry 4.0*. Available at: <https://www.controlglobal.com/blogs/guest-blogs/must-have-skills-for-industry-4-0/>.
- NSW Board of Vocational Education and Training (2011) Annual Report. O’Connell, J. et al. (2014) *Beyond Competencies: Using a Capability Framework in Developing Practice Standards for Advanced Practice Nursing*. John Wiley & Sons Ltd Publisher. Available at: <https://www.parliament.nsw.gov.au/tp/files/63924/BVET%20ANNUAL%20REPORT%202011.pdf>
- OECD (2019) *Getting Skills Right: Making Adult Learning Work in Social Partnership*. Available at: <https://www.oecd.org/els/emp/adult-learning-work-in-social-partnership-2019.pdf>
- ONS (2021) *The Challenges of Defining a ‘Green Job’*. UK Office for National Statistics. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/32373/11-1315-skills-for-a-green-economy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/32373/11-1315-skills-for-a-green-economy.pdf) (Accessed June 2021).
- Schröder, T. (2014) *Regional Cooperation in Vocational Teacher Education -building a platform for common research and development, consultancy and reform in East and Southeast Asia*. Available at: [https://www.researchgate.net/publication/332038539\\_Regional\\_Cooperation\\_in\\_Vocational\\_Teacher\\_Education\\_-building\\_a\\_platform\\_for\\_common\\_research\\_and\\_development\\_consultancy\\_and\\_reform\\_in\\_East\\_and\\_Southeast\\_Asia](https://www.researchgate.net/publication/332038539_Regional_Cooperation_in_Vocational_Teacher_Education_-building_a_platform_for_common_research_and_development_consultancy_and_reform_in_East_and_Southeast_Asia)
- Commonwealth Secretariat (2016) *Mapping Sector Skills Development across the Commonwealth; Analysis, Lessons and Recommendations* (31 January 2015, updated July 2016).
- UNESCO (2012) Shanghai Consensus: Recommendations of the Third International Congress on Technical and Vocational Education and Training, “Transforming TVET: Building Skills for Work and Life”. Shanghai, People’s Republic of China, 14–16 May 2012. Available at: <http://www.unevoc.unesco.org/fileadmin/up/217683e.pdf> (Accessed June 2021).
- UNESCO-Inter-Agency Group on Technical and Vocational Education and Training (2014) *Proposed Indicators for Assessing Technical and Vocational Education and Training: Working Document*. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000260674>
- UNESCO (2015) Revision of the 2001 Revised Recommendation Concerning TVET. General Conference 38<sup>th</sup>, August 2015.
- UNESCO (2016) *Strategy for Technical and Vocational Education and Training (TVET) (2016–2021)*. Available at: <https://en.unesco.org/sites/default/files/tvet.pdf>
- UNESCO (2021) *How Community Colleges and Other TVET Institutions Contribute to the United Nations Sustainable Development Goals*. Available at: <https://www.tandfonline.com/doi/abs/10.1080/0309877X.2021.1887463?src=&journalCode=cjfh20> (Accessed June 2021).
- UNESCO-UNEVOC (2020) UNESCO-UNEVOC TVeT Forum July 2020. Available at: <https://unevoc.unesco.org/home/TVET+Forum/lang=en/fiya=2020>
- UNESCO-UNEVOC (2021a) Work-based Learning and Skills Demonstrations during COVID-19: Promising Practise 2021. Available at: [https://unevoc.unesco.org/pub/promising\\_practice\\_oep.pdf](https://unevoc.unesco.org/pub/promising_practice_oep.pdf)
- UNESCO-UNEVOC (2021b) Promoting Quality in TVET using Technology: A Practical Guide. Available at: [https://unevoc.unesco.org/pub/promoting\\_quality\\_in\\_tvet\\_using\\_technology.pdf](https://unevoc.unesco.org/pub/promoting_quality_in_tvet_using_technology.pdf)
- UNIDO (2021) *What are Green Skills?* Available at: <https://www.unido.org/stories/what-are-green-skills#:~:text=%20The%20Green%20General%20Skill%20index%20identifies%20four,structure%20required%20to%20support%20green%20activities...%20More%20> (Accessed June 2021).
- World Bank (2020) *TVET Systems’ Response to COVID-19: Challenges and Opportunities*. Available at: <https://openknowledge.worldbank.org/handle/10986/33759> (Accessed June 2021).

World Bank (2021a) *COVID-19 Highlights Urgency for TVET Reforms*. Available at: <https://blogs.worldbank.org/education/covid-19-highlights-urgency-tvet-reforms> (Accessed June 2021).

World Bank (2021b) *Resilience Rating System: A Methodology for Building and Tracking Resilience to Climate Change*. Available at: <http://www.openknowledge.worldbank.org> (Accessed June 2021).

### Key agencies and resources

The following summary provides links to some of the key agencies with a specific focus on TVET. It is by no means exhaustive and generally does not include agencies with an exclusive focus on their own host country. However, even these agencies often promote, sponsor and disseminate a more global response to strengthening TVET systems.

For the most up to date TVET profiles for individual countries, visit UNESCO-UNEVOC, OECD, ILO and/or CEDEFOP (Europe only).

Agency	Acronym	Web Link
British Council		<a href="https://www.britishcouncil.org">https://www.britishcouncil.org</a>
China Education Association for International Exchange	CEAIE	<a href="https://www.ceaie.edu.cn">https://www.ceaie.edu.cn</a>
Commonwealth of Learning	COL	<a href="https://www.col.org">https://www.col.org</a>
Deutsche Gesellschaft für Internationale Zusammenarbeit	GIZ	<a href="https://www.giz.de">https://www.giz.de</a>
Education International	EI	<a href="https://www.ei-ie.org">https://www.ei-ie.org</a>
European Centre for the Development of Vocational Training	CEDEFOP	<a href="https://www.cedefop.europa.eu">https://www.cedefop.europa.eu</a>
European Training Foundation	ETF	<a href="https://www.etf.europa.eu">https://www.etf.europa.eu</a>
Inter-American Development Bank	IADB	<a href="https://www.iadb.org">https://www.iadb.org</a>
International Labour Organisation	ILO	<a href="https://www.ilo.org">https://www.ilo.org</a>
Journal of Vocational Education and Training		<a href="https://www.tandfonline.com">https://www.tandfonline.com</a>
National Centre for Vocational Education and Research	NCVER	<a href="https://www.ncver.edu.au">https://www.ncver.edu.au</a>
Organisation for Economic Co-operation and Development	OECD	<a href="https://www.oecd.org">https://www.oecd.org</a>
Research for Equitable Access and Learning	REAL	<a href="https://www.educ.cam.ac.uk">https://www.educ.cam.ac.uk</a>
Skillman (transnational platform for advanced manufacturing)		<a href="https://www.skillman.eu">https://www.skillman.eu</a>
TAFE Directors Australia	TDA	<a href="https://www.tda.edu.au">https://www.tda.edu.au</a>
United Nations Education, Scientific and Cultural Organisation	UNESCO	<a href="https://www.unesco.org">https://www.unesco.org</a>
UNESCO International Centre for Technical and Vocational Education and Training	UNESCO-UNEVOC	<a href="https://www.unevoc.unesco.org">https://www.unevoc.unesco.org</a>
United Nations Industrial Development Organisation	UNIDO	<a href="https://www.unido.org">https://www.unido.org</a>
World Bank		<a href="https://www.worldbank.org">https://www.worldbank.org</a>
World Federation of Colleges and Polytechnics	WFCP	<a href="https://www.wfcp.org">https://www.wfcp.org</a>

## Selected resources

<b>British Council</b>	<a href="https://www.britishcouncil.org/education/skills-employability">https://www.britishcouncil.org/education/skills-employability</a> <b>VET Toolbox</b> (indicators of achievement over five levels) <ul style="list-style-type: none"> <li>• Leadership and management</li> <li>• Quality of learning, teaching and assessment</li> <li>• Personal development, behaviour, care and guidance</li> <li>• Outcomes for learners</li> </ul> <b>i-work project:</b> Research on COVID response – How are vocational institutions innovating, evolving and changing as a result of COVID-19?   British Council <b>e-library:</b> <ul style="list-style-type: none"> <li>• Local economic partnerships</li> <li>• Guides and templates covering apprenticeships, employer engagement, skills gaps and labour market assessments</li> </ul>
<b>Commonwealth of Learning</b>	<a href="https://www.col.org">https://www.col.org</a> The focus for TVET is on supporting policy-makers, managers and teaching and administrative staff use technology to support flexible skills development. COL manages a small number of Skills in Demand projects to test and scale up their model of Technical and Vocational Skills Development.
<b>CEDEFOP</b>	<a href="https://www.cedefop.europa.eu">https://www.cedefop.europa.eu</a> CEDEFOP is an initiative of the European Union with resources specific to Europe. However, many of the publications, research reports and tools have direct relevance for any TVET system. These include: <ul style="list-style-type: none"> <li>• 2020 European Skills Agenda</li> <li>• Skills OVATE tool</li> <li>• Digital, greener and more resilient (booklet)</li> <li>• National qualification frameworks</li> </ul>
<b>Education International</b>	<a href="https://www.ei-ie.org">https://www.ei-ie.org</a> Podcast June 2021; ISU – TVET and social justice
<b>European Training Foundation</b>	<a href="https://www.etf.europa.eu">https://www.etf.europa.eu</a> <i>SELFIE tool for digital capacity in education and training systems including methodology and lessons learnt (2021)</i> CoVEs (Centres of Vocational Excellence) as Engines for VET Development
<b>GIZ</b>	<a href="https://www.giz.de">https://www.giz.de</a> GIZ is the German government's provider of international co-operation services with a strong track record in TVET and sustainable development. They produce an online magazine Telegraph (article on Green Recovery and TVET) and run a TVET Academy with courses for TVET teachers and trainers. Key themes include:

	<ul style="list-style-type: none"> <li>• Qualification of TVET Teachers and In-company Trainers</li> <li>• TVET and Digitalization</li> <li>• Green TVET</li> <li>• Co-operation with the Business Sector</li> </ul>
<b>HOLONIQ</b>	Established in 2018, this website is becoming an important source of global education intelligence. Drawing on data, research, networks and market intelligence, the site enables you to explore themes such as Augmented Reality, Education in 2030, online learning and SDG4.
<b>ILO</b>	<p><a href="https://www.ilo.org">https://www.ilo.org</a></p> <p>The Skills and Employability Branch provides the most up to date and relevant resources for TVET. These include:</p> <ul style="list-style-type: none"> <li>• Podcast <i>Is the future ready for youth?</i></li> <li>• Skills for Trade and Economic Development (2020)</li> <li>• Guidelines for the development of regional model competency standards (16 guides by the industry/trade sector providing a skeleton framework for the development of competency standards)</li> </ul>
<b>OECD</b>	<p><a href="https://www.oecd.org">https://www.oecd.org</a></p> <p>Search for VET and Adult Learning. Here you will find a wide range of resources, guides and reports including:</p> <ul style="list-style-type: none"> <li>• Country reviews</li> <li>• Work-based learning and apprenticeships</li> <li>• Inclusive VET and adult learning</li> <li>• Apprenticeships in a Green Economy</li> </ul> <p>A number of 2021 publications include:</p> <ul style="list-style-type: none"> <li>• <i>VET in a time of crisis: Building foundations for resilient vocational education and training systems</i>. Accessed via <a href="https://doi.org/10.1787/efff194c-en">https://doi.org/10.1787/efff194c-en</a>.</li> <li>• <i>Teaching and learning in VET: Providing effective practical training in school-based settings</i>. Accessed via <a href="https://doi.org/10.1787/64f5f843-en">https://doi.org/10.1787/64f5f843-en</a>.</li> </ul> <p>Key publications include:</p> <ul style="list-style-type: none"> <li>• <i>How are young VET graduates faring in the digital transformation?</i> (9 November 2020)</li> <li>• <i>Looking beyond COVID19</i> (30 March 2021)</li> <li>• <i>Impact of AI on the labour market</i> (25 January 2021)</li> <li>• <i>Improving evidence of VET</i> (10 October 2020)</li> <li>• <i>Scaling up policies that connect people with jobs in the recovery from COVID</i> (29 April 2021)</li> <li>• <i>The potential of online learning for adults</i></li> <li>• <i>Skill measures to mobilise the workforce during the COVID crisis</i></li> <li>• <i>Future ready adult learning systems</i></li> <li>• <i>Quality assurance in non-formal training</i></li> </ul>
<b>RMIT Blog</b>	<p><a href="https://www.unevocrmit.org">https://www.unevocrmit.org</a></p> <p>Post COVID Recovery for young people</p>
<b>Skillman</b>	<p><a href="https://www.skillman.eu">https://www.skillman.eu</a></p> <p>Webinars:</p> <ul style="list-style-type: none"> <li>• <i>Creating effective innovative ecosystems: lessons learned</i> (19 April 2021)</li> <li>• <i>TVET and civic participation: lessons learned</i> (20 April 2021)</li> </ul>

<b>UNESCO</b>	<a href="https://www.unesco.org">https://www.unesco.org</a> Skills for a Green and Resilient Economy; UNESCO Strategy 2016–21
<b>UNESCO- UNEVOC</b>	<a href="https://www.unevoc.unesco.org">https://www.unevoc.unesco.org</a> <p>This website is a key resource for all stakeholders involved in TVET. The online forum provides a very effective sharing platform on TVET with contributors from across the globe. Key sections on the website include:</p> <ul style="list-style-type: none"> <li>• Online TVET Forum (free registration required)</li> <li>• Country Profiles (includes descriptions of their TVET system with several updates in 2020–21)</li> <li>• Webinar on online learning (20 May 2021)</li> <li>• Global Inventory of Regional and National Qualification Frameworks (Volume 1, 2017; Volume 2, 2015)</li> <li>• SDG Affinity Group (requires free registration)</li> <li>• Thematic areas include <i>Inclusion and Youth</i>; <i>SDGs and Greening TVET</i>; <i>Innovation and Future of TVET</i>; <i>Private Sector Engagement</i></li> <li>• TVET Leadership Programme</li> <li>• Labour market impact of NQFs (National Qualifications Framework) in six countries (2015)</li> </ul>
<b>World Federation of Colleges and Polytechnics</b>	<a href="https://www.wfcp.org">https://www.wfcp.org</a> <ul style="list-style-type: none"> <li>• SDG Affinity Group</li> <li>• Community of Practice; education for sustainable development</li> </ul>

## 4. Glossary

Accreditation and Registration	A formal process, often written into law or regulations, which when completed gives a level of authority to provide training, award certificates and apply or receive funding. Accreditation can also extend to areas such as quality assurance, approved supplier status and industry endorsements. Accrediting bodies are often government agencies but can also be industry associations or private companies. In some cases, the word "registration" is used. For example, "our college is an accredited provider of ..." or "our college is registered with ....".
Blended learning	A combination of face-to-face instruction in a college setting, work-based learning such as an apprentice or trainee program, self-paced learning and synchronous online learning. The blend may be some or all of these modes of delivery.
Capability	The ability to successfully carry out the required duties in the workplace. Capability assumes more than just competence and includes the ability to transfer skills to new situations, demonstrate flexibility and resilience, and show initiative.
Certificate, Diploma, Advanced Diploma, Degree, Graduate Certificate or Diploma, Master's Degree, Technical Degree, etc. See also micro-credentials	Different ways of describing achievement through the awarding of some form of qualification. In most TVET systems, these awards are grouped into different levels and form a qualification framework. The framework may also provide links or pathways to and from the TVET system.
Competency	The ability to successfully complete a task. Often broken down into the knowledge, skills and attitude which need to be demonstrated. In a competency-based training system, competencies are often grouped into units of study and form the basis of assessment. Units are then linked to levels of achievement and formal certification.
Core skills	Skills relevant to all types of occupations. These include literacy and numeracy skills, working in teams and other "soft skills". Core skills are sometimes taught and developed separately but are most effective when taught and developed in the context of the occupation. For example, there is a little value in teaching students to write an essay on safe working practices when the job requires them to write clear and concise reports on health and safety incidents.
Courseware	A generic term covering all the learning materials accessible through an online learning platform.

Micro-credential	<p>A short course or the teaching of one specific skill which is then given a formal award, certificate or some other form of recognition. For example, <i>the responsible service of alcohol, basic spreadsheet operations, barista operator, fire extinguisher operation</i>.</p> <p>Some organisations offer such recognition in the form of a Statement of Attendance (e.g. conferences), Statement of Attainment or Statement of Achievement. These statements can then contribute towards the gaining of a higher level of certification or award or be used as evidence during performance reviews or applications for new positions.</p>
Module, Unit, Subject, Element, Topic, Section	<p>Different ways of describing the parts of a course or qualification. For example, a course may divide into Modules which then have a number of Units and each Unit is then broken down into Elements.</p> <p>Alternatively, a course may have a number of subjects each with their own sections, chapters, topics or areas of study.</p>
Occupational profile	<p>A description of a particular job. It may include the role, the responsibilities, the pay scale and the lines of reporting. Occupational profiles may also include information about the current supply and demand for such jobs, forecasts about future supply and demand, and possible changes in the skills required.</p>
Online learning	<p>Learning through the use of Information and Communication Technologies. These technologies include email, video and phone conferencing, internet and intranet (the latter being an in-house web-based site), and corporate learning platforms, cloud-based software programs, mobile phone messaging and group-based applications.</p>
Online learning platform	<p>A purpose built website which may include a student management system, courseware, interactive tasks and assessments, teacher and administrator controls, and links to a wide range of other applications.</p>
Soft skills	<p>Broad term used to describe "people skills" such as team work, conflict resolution, mentoring and compassion.</p>
Standards	<p>The minimum requirements of an occupation or job. Often listed as duties or responsibilities. Standards can also describe the minimum requirements needed to gain accreditation as a training provider.</p>
Synchronous and asynchronous learning	<p>Synchronous is in real time where the learner interacts directly with the teacher or with other members of the class, often through an online learning platform or a video conferencing program.</p> <p>Asynchronous learning is usually done at the learner's own pace, usually with completion deadlines. The learner uses an online learning platform or a self-paced workbook to guide their studies, complete tasks, submit assignments and receive feedback after submission.</p>
Transferability of skills	<p>The ability to use skills learnt in one environment to a new or unfamiliar environment. For example, a waiter trained in a small café being able to use and adapt their skills to work in a five star resort, or a motor mechanic trained on one brand of car using their skills to work on other brands.</p>

For similar definitions and for definitions of other terms used in the TVET sector, please UNESCO-UNEVOC's TVETpedia Glossary at <https://unevoc.unesco.org/home/TVETpedia+Glossary>.

## 5. TVET Assessment Framework User Guide

You can use this framework to identify your TVET system's current level of development. Your rating for each of the levels should be based on achievements and clear evidence.

Step 1:	Refer to the table below for a useful definition of each level, then read through each level and each element
Step 2:	Select the level most appropriate to your TVET system
Step 3:	Highlight this level and take note of the associated percentage value <i>Repeat this step for each sub-point within each stage</i>
Step 4:	Add up your percentages for each sub-point to determine your score (as a percentage)
Step 5:	Divide this number by 20. This will reveal your level <i>Repeat this step for each stage</i>
Step 6:	Plot your level on the radar diagram using the separate spreadsheet. An example of how to complete the ratings is provided in the Case Study on the following pages.

### Definition table

Each stage builds on the previous stage leading to Level 5 where continuous review and improvement is in place.

Stage	Definition
1	Indicates that there is no evidence of the TVET feature under question.
2	Indicates that there is some evidence of the feature under question, which may be localised at an individual institution or regional level.
3	Indicates that the feature under question exists at a local and national level, but there are weak connections and inconsistent implementation.
4	Indicates that the feature has been implemented at a local and national level with established lines of communication and engagement by stakeholders where required.
5	Indicates that the feature has been implemented locally and nationally with established lines of communication and engagement by all stakeholders. There is also in place a systematic process of review and evaluation, and the results of such reviews are used to continually improve the responsiveness and effectiveness of the TVET system.

## Example of a country profile for governance

### Governance

Elements	Level 1	Level 2	Level 3	Level 4	Level 5
<b>1.1 Roles and responsibilities</b>	There is no evidence of defined roles and responsibilities for TVET.	There is evidence of defined roles and responsibilities for TVET at regional and/or local levels.	There is evidence of defined roles and responsibilities for TVET at a local and national level, but with weak structures and function and little interaction between key stakeholders.	There is evidence of well-defined roles and responsibilities for TVET at a local and national level with established mechanisms for stakeholder involvement.	There is evidence of a 'whole of community' approach to TVET with defined roles and responsibilities for all stakeholders
<b>value 30%</b>	6 %	12 %	18 %	24 %	30 %
<b>1.2 Policies and Funding</b>	There is no evidence of national skills development policies / strategies that are funded by the government. Funding may be through donor agencies & private investment.	There is evidence of skills development policies and/or strategies at regional or local levels with limited government funding.	There is evidence of skills development policies and/or strategies which are distributed across government ministries, but not nationally coordinated. These policies are funded by the national government but there is no evidence of alignment with national, economic and social priorities.	There is evidence of national skills development policies and/or strategies with clear lines of communication, and with input from key stakeholders. These policies take into account emerging technological innovations and digital skills. They are funded by the national government and are aligned with national, economic and social priorities.	There is evidence of nationally endorsed skills development policies and/or strategies that cater to emerging technological innovations and digital skills, and are linked to the labour market, sustainable development, and other policies. There is also evidence of established national funding frameworks for TVET with multiple funding sources and evaluation of return in line with other policies. A continuous improvement process is in place.

<b>value 40%</b>	8 %	16 %	24 %	32 %	40 %
<b>1.3 Policies for Access and Equity</b>	There is no evidence of government policies and/or strategies to increase participation in TVET.	There is evidence of these equity policies and/or strategies at local/regional levels.	There is evidence of these equity policies and/or strategies at local/regional levels, with some level of allocated funding attached.	There is evidence of national equity policies and/or strategies, with allocated funding.	There is evidence of national equity policies and targeted government strategies/initiatives, which are subject to a continuous improvement cycle.
<b>value 30%</b>	6 %	12 %	18 %	24 %	30 %
<b>Add up your % to find your score</b>	<b>Your score is 74 %</b>				
<b>Divide this number by 20 to determine your level</b>	<b>YOU'RE AT LEVEL 3.7</b>				



## 6. Handout #1 Self-assessment rating sheets

### 1. Governance

Elements	Level 1	Level 2	Level 3	Level 4	Level 5
<b>1.1 Defined roles and responsibilities</b>	There is no evidence of defined roles and responsibilities for TVET.	There is evidence of defined roles and responsibilities for TVET at regional and/or local levels.	There is evidence of defined roles and responsibilities for TVET at a local and national level, but with weak structures and functions, and little interaction between key stakeholders.	There is evidence of well-defined roles and responsibilities for TVET at a local and national level with established mechanisms for stakeholder involvement.	There is evidence of a 'whole of community' approach to TVET with defined roles and responsibilities for all stakeholders
<b>value 30%</b>	6 %	12 %	18 %	24 %	30 %
<b>1.2 Policies and Funding for Skills Development</b>	There is no evidence of national skills development policies / strategies that are funded by the government. Funding may be through donor agencies & private investment.	There is evidence of skills development policies and/or strategies at regional or local levels with limited government funding.	There is evidence of skills development policies and/or strategies which are distributed across government ministries, but not nationally coordinated. These policies are funded by the national government but there is no evidence of alignment with national, economic and social priorities.	There is evidence of national skills development policies and/or strategies, with clear lines of communication, and with input from key stakeholders. These policies take into account emerging technological innovations and digital skills, and are linked to the labour market, sustainable development, and other policies. There is also evidence of established national funding frameworks for TVET with multiple funding sources and evaluation of return in line with other policies. A continuous improvement process is in place.	There is evidence of nationally endorsed skills development policies and/or strategies that cater to emerging technological innovations and digital skills, and are linked to the labour market, sustainable development, and other policies. There is also evidence of established national funding frameworks for TVET with multiple funding sources and evaluation of return in line with other policies. A continuous improvement process is in place.

Elements	Level 1	Level 2	Level 3	Level 4	Level 5
<b>value 40%</b>	8 %	16 %	24 %	32 %	40 %
<b>1.3 Access and Equity Policies</b>	There is no evidence of government policies and/or strategies to increase participation in TVET.	There is evidence of these equity policies and/or strategies at local/regional levels.	There is evidence of these equity policies and/or strategies at local/regional levels, with some level of allocated funding attached.	There is evidence of national equity policies and/or strategies, with allocated funding.	There is evidence of national equity policies and targeted government strategies/initiatives, which are subject to a continuous improvement cycle.
<b>value 30%</b>	6 %	12 %	18 %	24 %	30 %
<b>Add up your % to find your score</b>	<b>Your score is %</b>				
<b>Divide this number by 20 to determine your level</b>	<b>YOU'RE AT LEVEL</b>				

## 2. Employer engagement

Elements	Level 1	Level 2	Level 3	Level 4	Level 5
<b>2.1</b> <i>Determining skill priorities</i>	There is no evidence of employer engagement with government in determining skills priorities.	There is evidence of sporadic or informal employer engagement with government in determining skills priorities.	There is evidence of some formal employer engagement with government in determining skill priorities.	There is evidence of the contribution of formal employer bodies to national TVET policy development through engagement with small, medium and large business.	There is evidence of ongoing consultation between employer bodies, enterprises and government to determine and review national skill priorities, policies & occupational lists.
<b>value 20%</b>	4 %	8 %	12 %	16 %	20 %
<b>2.2</b> <i>Workplace training</i>	There is no evidence of training delivered in the workplace	There is evidence of informal workplace training including site visits	There is evidence of formal cooperation between employers and TVET where formal training is conducted at the workplace	There is evidence of a national skills policy and funding which support workplace training through work placements, apprenticeships and other similar arrangements	There is evidence of strong partnerships between government, employers and TVET institutions for the provision of workplace training and Apprenticeship programmes.
<b>value 20%</b>	4 %	8 %	12 %	16 %	20 %
<b>2.3</b> <i>Curriculum Development</i>	There is no evidence of employer contribution to the development of TVET curriculum.	There is evidence of limited employer contribution to the development of TVET curriculum.	There is evidence of a formal role for employers in the development of TVET curriculum.	There is evidence of a formal role for employers in the development and validation of TVET curriculum.	There is evidence of employers' ongoing and extensive input into the development, validation and evaluation cycle of TVET curriculum.

Elements	Level 1	Level 2	Level 3	Level 4	Level 5
<b>Value 20%</b>	4 %	8 %	12 %	16 %	20 %
<b>2.4 Support for the TVET Sector</b>	There is no evidence of support for the TVET sector	There is limited support and contributions from employers	There are many employers directly supporting the TVET sector	There are formal arrangements for employer support	There is extensive support for the TVET sector through a wide range of programmes and agreements
<b>Value 20%</b>	4 %	8 %	12 %	16 %	20 %
<b>2.5 Support for employers</b>	There is no evidence of any support for employers in delivering TVET	There is some evidence of employers gaining support in engaging with the TVET sector	There is evidence of formal agreements and cooperation between employers and TVET which support the employer in engaging with TVET	There are policies and funding in place to support employers	There is evidence of strong partnerships between employers and TVET with employers gaining direct support
<b>Value 20%</b>	4 %	8 %	12 %	16 %	20 %
<b>Add up your % to find your score</b>	<b>Your score is %</b>				
<b>Divide this number by 20 to determine your level</b>	<b>YOU'RE AT LEVEL</b>				

### 3. Occupational standards

Elements	Level 1	Level 2	Level 3	Level 4	Level 5
<b>3.1</b> <i>Occupational profiles</i>	There is no evidence of any occupational profiles	There is evidence of profiles for some but not all occupations	There is evidence of a wide range of occupational profiles but not all are current	There is evidence of occupational profiles which cover all industry sectors and are current	There is clear evidence that occupational profiles are regularly reviewed, updated and extended. New profiles are developed as required.
<b>value 30%</b>	6 %	12 %	18 %	24 %	30 %
<b>3.2</b> <i>Technical and capability skills</i>	There is no evidence of a defined set of skills required for specific occupations	There is some evidence of a defined set of skills required for specific occupations	There is evidence of a wide range of skill sets aligned to specific occupations	There is evidence of skill sets which cover all relevant occupations	There is clear evidence of skills sets aligned to occupations with a regular review process to ensure their relevance
<b>Value 30%</b>	6 %	12 %	18 %	24 %	30 %
<b>3.3</b> <i>Standards based curriculum</i>	Curriculum is based on hours and not directly linked to occupational skills	There are some courses directly linked to occupational skills	All courses are directly linked to occupational skills and standards	All courses are regularly reviewed for the currency	New courses are developed to meet new occupational profiles
<b>Value 20%</b>	4 %	8 %	12 %	16 %	20 %
<b>3.4</b> <i>Recognition of existing skills and knowledge</i>	There is no evidence of structures or processes to recognise existing skills and knowledge.	There is evidence of limited recognition structures and processes in place at institution level.	There is evidence of structures and processes at institution level to recognise existing skills and knowledge, but limited implementation.	There is evidence of a nationally coordinated approach to the recognition of existing skills and knowledge that is being accessed by students.	There is evidence of a nationally coordinated approach to recognising existing skills and knowledge which is being readily accessed by students and is subject to a continuous improvement cycle.
<b>value 20%</b>	4 %	8 %	12 %	16 %	20 %
<b>Add up your % to find your score</b>					
<b>Divide this number by 20 to determine your level</b>					
<b>YOU'RE AT LEVEL</b>					

## 4. Qualification framework

Elements	Level 1	Level 2	Level 3	Level 4	Level 5
<b>4.1</b> <i>TVET Qualifications</i>	There are no formal qualifications offered by TVET institutions	There are some formal qualifications offered but all are for a fixed time of study (mandatory hours)	There is a wide range of qualifications offered with options for short courses (micro-credentials) and online delivery.	There is a wide range of courses offered, both in-person and online, directly linked to occupational profiles and options for part or full completion.	All courses are regularly reviewed and updated, quality online courses are offered, and new courses can be quickly (within 12 months) approved and offered.
<b>value 30%</b>	6 %	12 %	18 %	24 %	30 %
<b>4.2</b> <i>Qualifications Structure</i>	Individual TVET institutions have their own qualifications and certification process.	There is evidence of a TVET qualification structure but it is not mapped to other educational sectors, or national occupational lists.	There is evidence of a TVET qualification structure between TVET and at least one other educational sector, linked to national occupation lists.	There is evidence of recognition of national qualifications and articulation arrangements from primary through to higher education. Employer driven certifications and licensing are incorporated into the system.	There is evidence of recognition of national and international qualifications and articulation arrangements from primary through to higher education. Employer driven certifications and licensing are incorporated into the system.
<b>value 40%</b>	8 %	16 %	24 %	32 %	40 %
<b>4.3</b> <i>Recognition and Articulation</i>	There is no evidence of recognition of qualifications between TVET institutions or articulation pathways between education sectors.	There is evidence of informal recognition of qualifications between TVET institutions and limited articulation arrangements between education sectors.	There is evidence of formal recognition of qualifications and articulation arrangements between education sectors.	There is evidence of national recognition of national qualifications and articulation arrangements from primary through to higher education.	There is evidence of national and international TVET qualifications and articulation arrangements from primary to higher education.
<b>value 30%</b>	6 %	12 %	18 %	24 %	30 %
<b>Add up your % to find your score</b> <b>Divide this number by 20 to determine your level</b> <b>Your score is %</b> <b>YOU'RE AT LEVEL</b>					

## 5. Quality institutions

Elements	Level 1	Level 2	Level 3	Level 4	Level 5
<b>5.1 National Quality Standards</b>	TVET institutions are not required to operate according to quality standards	There is evidence of TVET institutions creating and adhering to quality standards of their own choosing, but no evidence that they are obliged to do so.	There is evidence of quality standards that are developed for TVET institutions by the Government, but no evidence that these standards are monitored or enforced.	There is evidence of independent quality assurance agencies which exist to monitor and enforce quality standards of TVET institutions and to evaluate them.	There is evidence of an independent quality assurance agency which oversees a self-regulating and risk based system, based on employer and learner feedback.
<b>value 40%</b>	8 %	16 %	24 %	32 %	40 %
<b>5.2 Registration Process</b>	There is no evidence of a registration process for TVET institutions to deliver qualifications.	There is evidence of a registration process for government TVET institutions to deliver national qualifications.	There is evidence of a registration process for government and private TVET institutions to deliver national qualifications.	There is evidence of a registration process for all TVET institutions with links to funding agreements.	There is evidence that all TVET institutions are required to register to deliver national qualifications and re-register on a regular basis.
<b>value 20%</b>	4 %	8 %	12 %	16 %	20 %
<b>5.3 Continuous Improvement</b>	There is no evidence that TVET institutions are continuing to improve to meet national standards.	There is evidence that a limited number of TVET institutions are continuing to improve to adhere to national standards.	There is evidence of a framework for TVET institutions to accurately report on continuous improvement, but there is no evidence this is monitored or enforced on a national scale.	There is evidence that TVET institutions must report on their continuous development and continue to meet national standards. This includes incorporating emerging technological innovations and digital skills into the delivery and assessment of courses.	There is evidence that all TVET institutions are continuing to improve and provide accurate reporting on the steps taken to continue to meet national standards. An emphasis is placed on incorporating technological innovations and digital skills into curricula, and providing online delivery and assessment of courses.

Elements	Level 1	Level 2	Level 3	Level 4	Level 5
<b>value 20%</b>	4 %	8 %	12 %	16 %	20 %
<b>5.4 Data collection and Analysis</b>	There is no evidence that data is collected on the local or national TVET system.	There is evidence that data is collected on the local TVET system, but is not coordinated at a national level.	There is evidence that TVET data is collected in a nationally coordinated approach, but it is not disseminated to stakeholders.	There is evidence that TVET data is gathered and disseminated to stakeholders, but it is not always accurate, reliable or timely.	There is evidence of national systems which collect and disseminate accurate, reliable and timely TVET data.
<b>value 20%</b>	4 %	8 %	12 %	16 %	20 %
<b>Add up your % to find your score</b>	<b>Your score is %</b>				
<b>Divide this number by 20 to determine your level</b>	<b>YOU'RE AT LEVEL</b>				

## 6. Delivery and assessment

Elements	Level 1	Level 2	Level 3	Level 4	Level 5
<b>6.1</b> <i>Teachers and trainers</i>	There is no evidence that teachers/trainers are required to have formal teaching/training qualifications or relevant industry experience.	There is evidence that teachers/trainers are required to have formal teaching/training qualifications but not relevant industry experience.	There is evidence that teachers/trainers are required to have relevant minimum teacher/trainer qualifications and industry experience.	There is evidence that teachers/trainers are required to have teacher/trainer qualifications and relevant industry qualifications and experience.	There is evidence that teachers/trainers are required to have teacher/trainer qualifications, current industry experience and qualifications and undertake continuous professional development.
<b>value 30%</b>	6 %	12 %	18 %	24 %	30 %
<b>6.2</b> <i>Flexible and online delivery</i>	Delivery is classroom based. There is no evidence of other available delivery options.	There is evidence of the availability of part time delivery, but not of other modes of delivery.	There is evidence of the availability of flexible modes of delivery including online options	There is evidence of online and flexible delivery options being integrated with mainstream teaching and learning	There is evidence of online and flexible delivery being constantly reviewed, updated and improved.
<b>value 15%</b>	3 %	6 %	9 %	12 %	15 %
<b>6.3</b> <i>Student support services</i>	There is no evidence of any student support services on offer	There is some evidence of student support services being offered	There is evidence of a range of student support services being offered and used by students	There is evidence of student support services being regularly reviewed, improved and supported by the TVET system	There is evidence of student support services being regularly reviewed, improved and extended as required.
<b>value 15%</b>	3 %	6 %	9 %	12 %	15 %

Elements	Level 1	Level 2	Level 3	Level 4	Level 5
6.4 <i>Teaching and assessment guidelines</i>	Teaching and assessment practices are determined by the individual teacher or institute	There is evidence of guidelines for teachers on delivering and assessing training	There is evidence of nationally endorsed guidelines for teaching and assessment but limited evidence of their implementation	Nationally endorsed teaching and assessment guidelines are implemented across the TVET sector	The implementation of teaching and assessment guidelines are regularly monitored, reviewed and adapted as required
<b>Value 20%</b>	4 %	8 %	12 %	16 %	20 %
6.5 <i>Validation and moderation processes</i>	There is no evidence of learning and assessment strategies being validated or moderated.	There is evidence of assessments being moderated at an institution level.	There is evidence of processes in place between local institutions to validate and moderate learning and assessment strategies.	There is evidence of processes in place between institutions nationally and internationally to validate and moderate learning and assessment strategies.	There is evidence of processes in place between institutions nationally and internationally to validate, moderate and review learning and assessment strategies.
<b>value 20%</b>	4 %	8 %	12 %	16 %	20 %
<b>Add up your % to find your score</b>	<b>Your score is %</b>				
<b>Divide this number by 20 to determine your level</b>	<b>YOU'RE AT LEVEL</b>				



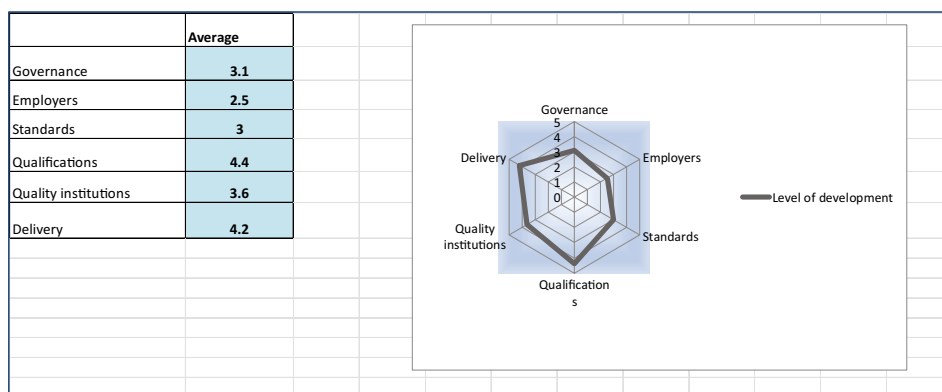
## 6.1 Handout #2 – Self-assessment rating record sheet

Group number or participant name

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Key feature	Rating level
Governance	
Employer engagement	
Occupational standards	
Qualifications framework	
Standards for providers	
Delivery and assessment	

## 6.2 Handout 3 – sample results graph



To create your own radar chart, open the Excel spreadsheet in your toolkit and enter your average scores in the table. The graph will automatically update the results to show where you have assessed the levels of development for each of the six key features.

## 6.3 Handout 4 – TVET self-assessment workshop evaluation

Name:

Position

Organisation:

For each item identified below, circle the number to the right that best fits your judgment of its quality. Use the rating scale to select the quality number.

WORKSHOP EVALUATION	Scale				
	Poor				Excellent
<b>BEFORE THE WORKSHOP</b>					
Did you have access to the videos and the Participant Manual before the workshop? YES/NO					
1. If yes, please rate the value of the videos	1	2	3	4	5
2. If yes, please rate the value of the participant manual	1	2	3	4	5
<b>DURING THE WORKSHOP</b>					
Please rate each of these topics and activities based on how relevant and useful they were.					
3. Background to the self-assessment framework	1	2	3	4	5
4. Rationale and definition of TVET	1	2	3	4	5
5. Six key features of a strong TVET system	1	2	3	4	5
6. Stages of development	1	2	3	4	5
7. Group or Self-assessment activity	1	2	3	4	5
8. Results and analysis of the group or self-assessments	1	2	3	4	5
<b>OVERALL RATING OF THE WORKSHOP</b>					
Please give an overall rating for the workshop	1	2	3	4	5

### Additional comments

To help us improve the resources and activities used during this workshop, please provide any additional comments or suggestions:

Video clips  
Participant manual  
Presentation slides  
Length and timing of the sessions  
Workshop activities  
Any other suggestions or comments

**PLEASE RETURN THIS COMPLETED EVALUATION TO THE ORGANISERS BEFORE YOU LEAVE**

**THANK YOU ☺**



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## 7. Workshop presentation slides

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### **TVET self-assessment workshop**

**Analysing the current level of development  
of your TVET system**

<name of facilitator>  
<name of facilitator's organisation>  
<date and location of workshop>




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### **Workshop Objectives**

Through formal presentations, group discussion and activities, participants will be able to:

1. Identify the key features of a strong and effective TVET system and the different stages of development for each feature
2. Assess the strengths and weaknesses of the current TVET system in their country
3. Recommend priorities for the future development of the TVET system.



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## Workshop Agenda

8:30 – 9:00	Registration
9:00 – 9:15	Welcome
9:15 – 10:30	Development of the self-assessment tool
10:30 – 10:40	Defining TVET
10:40 – 13:00	The TVET Framework <ul style="list-style-type: none"><li>- Six key features</li><li>- Five stages of development</li></ul>
13:00 – 13:45	Lunch break



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## Workshop Agenda

13:45 – 14:00	Review of first session
14:00 – 15:00	Rating each key feature
15:00 – 15:30	Tea break
15:30 – 16:30	Results of the self assessment
16:30 – 17:00	Summary and workshop evaluation



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## Background to the Framework

- Commissioned by the Commonwealth Secretariat in 2011 – *“Analyse the current status of TVET systems in 5 Commonwealth countries and identify priorities for future development”*
- Further refinements through additional research, workshops and piloting of the model between 2012 and 2015
- Major refresh in 2021 to update climate change strategies and the impact of the pandemic



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## Background to the Framework

- Identified as a valuable resource to support the United Nations 2030 Sustainable Development Goals, especially Goal #4:

*“Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”*



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## The purpose of the framework

- To encourage discussion among key decision makers
- To identify strengths and weaknesses in your current TVET system
- To identify priorities for further development



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## Who should use it?

- Government officials and policy makers
- Public and private employer and employee associations
- Public and private education and community institutions



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## Definition of TVET

The TVET sector is defined as:

***“the policies, programs and institutions dedicated to providing formal education, training and assessment for skills required in the workplace”***

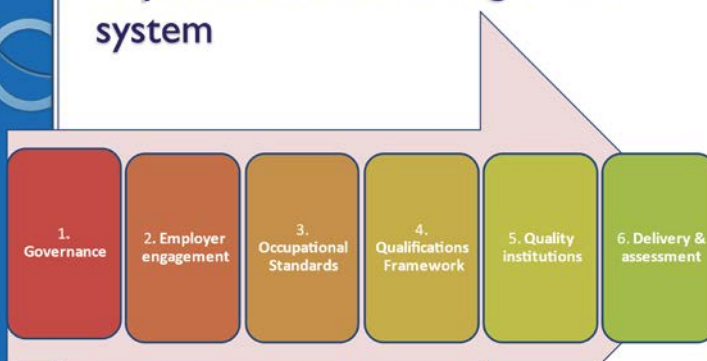
Refer to the *Participants Manual* for a more detailed explanation of this definition.



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## Key features of a strong TVET system




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1.  
Governance

- A 'whole of government' approach to defining roles and responsibilities for all stakeholders in the TVET system
- Policies and initiatives which promote and support access and equity for all
- Policies which meet both current and future skill needs of the country and have a global perspective
- National funding frameworks which draw on multiple funding sources, match skill needs and priorities, and are subject to constant monitoring and evaluation



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2.  
Employer  
engagement

- Direct employer engagement with setting skill priorities
- Partnerships between public and private employers, employee associations and training institutions in providing workforce training
- Direct engagement by employers in the development, validation and evaluation of TVET curriculum
- Financial and in-kind support for the TVET sector at both a national and local level
- Support for employers in engaging with the TVET sector and supporting learners




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### 3. Occupational Standards

- Curriculum based on nationally endorsed standards which align to current and future occupational profiles. These standards are under regular review and revision.
- Standards which define both technical skills and capabilities
- A nationally coordinated approach to recognizing existing skills and knowledge of the students. This recognition may lead to the faster completion of a qualification or enrolment in a higher level qualification.



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### 4. Qualifications Framework

- Formal certification of TVET courses including short courses (micro-credentials), certificates, diplomas, technical degrees, advanced and graduate diplomas
- An integrated and nationally approved framework which links TVET qualifications to other education sectors and their qualifications. This framework is also recognised internationally and subject to regular review
- Formal pathways between school achievement, TVET study and higher education study



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### 5. Quality institutions

- A nationally approved set of standards for TVET institutions which award qualifications and can gain government funding
- Processes to ensure standards continue to be met
- Registration includes the levels of qualification institutions can issue and the range of courses they can offer.
- A national system for collecting and analyzing data on TVET provision.



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### 6. Delivery & assessment

- Mandatory qualifications for TVET teachers including subject expertise and relevant industry experience
- Different study options for students to suit their preferred learning styles and their personal situation
- A wide range of services to support students with their learning
- Assessment guidelines for every course
- Regular sessions for teachers to jointly moderate their assessments and for employers to validate such assessments



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## The five stages of development


- 1 • Limited national approach
- 2 • Some national coordination
- 3 • Structures & policies in place
- 4 • Effective implementation
- 5 • Continuous evaluation & improvement

  
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## Sample rating sheet

Elements	Level 1	Level 2	Level 3
<b>1.1 Occupational profiles</b>	There is no evidence of any occupational profiles	There is evidence of profiles for some but not all occupations	There is evidence of a wide range of occupational profiles but not all are current
Value 30%	6 %	12 %	18 %
<b>1.2 Technical and capability skills</b>	There is no evidence of a defined set of skills required for specific occupations	There is some evidence of a defined set of skills required for specific occupations	There is evidence of a wide range of skill sets aligned to specific occupations
Value 30%	6 %	12 %	18 %
<b>1.3 Standards based curriculum</b>	Curriculum is based on hours and not directly linked to occupational skills	There are some courses directly linked to occupational skills	All courses are directly linked to occupational skills and standards
Value 20%	4 %	8 %	12 %
<b>1.4 Recognition of existing skills and knowledge</b>	There is no evidence of structures or processes to recognise existing skills and knowledge	There is evidence of limited recognition structures and processes in place at institution level	There is evidence of structures and processes at institution level to recognise existing skills and knowledge, but limited implementation
Value 20%	4 %	8 %	12 %
Add up your % to find your score	Your score is %		
Divide this number by 20 to determine your level	YOU'RE AT LEVEL		

  
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## Calculating a rating

1. Circle the appropriate level on the rating sheets for each of the elements within a key feature
2. Add up the percentages you have given for each element
3. Divide this number by 20 and round up your result to one decimal place (eg. 3.4)
4. This now gives you a rating score for this key feature on a scale of 1 to 5.
5. Repeat this procedure for all six key features and enter your final scores on the Rating Record Sheet.



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## The results of the assessments

- Overall averages for each key feature
- Variations in the range of scores



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## Next steps - adapting the model

- The elements for each Key Feature have been given a default percentage
- You can change these percentages to reflect your own priorities
- The percentages for each level of development should remain the same.



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## Next steps – setting priorities

- Which of the six key features are less developed?
- What actions or strategies can be put in place to improve these features?
- What is achievable in the short, medium and long term?
- Who should take responsibility for planning and implementing these changes?



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## Turning plans into action

- Key elements of an action plan
  - Setting your objective
  - Listing actions or tasks
  - Allocating responsibility
  - Setting the time frame
  - Monitoring progress (notes, traffic light)

**Realistic**

**Achievable**

**Flexible**



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Please complete the workshop evaluation  
before you leave

Thank you for your participation 😊

For more information please contact:  
<contact details for facilitator or  
relevant official and department>



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## 8. A short guide to action planning

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### 8.1. Introduction

Action planning is an approach used to systematically define, implement and monitor actions to drive change and achieve a predefined goal. All action plans start with identifying the objective or aim – something you want to improve or establish. This is followed by a set of tasks or actions which you believe will achieve the objective. The actions are assigned to individual people to lead and with clear start and finish dates for each action. Finally, the notes section can be used to indicate any issues or problems which need to be resolved, or any specific resources you need.

Action plans may also include a traffic light system indicating whether an action is on track, causing some concern or needing immediate resolution. This greatly assists project or programme managers to see at a glance how things are tracking without having to go into the details of each action and its progress.

There are hundreds of formats for action plans and no single one is the “gold standard”. The best one is one which suits you and your team to map out the different stages and actions needed to achieve your objective.

Some action plans use quite sophisticated software such as MS Project or GANT charts. These were originally developed for more mechanistic projects such as a manufacturing process or building project. The nature of TVET requires action plans to be very flexible, particularly given the nature of education and training and its interdependence on government policy.

An effective action plan is one where all stakeholders have had some input into its development, where the lines of responsibility and reporting are clear, where the actions and the outcomes are achievable and where the plan itself is constantly updated to reflect the real situation at any time during its implementation.

## 8.2. Glossary

Terms used in this Guide	Alternative or similar terms
Action plan	Project plan, GANT Chart, Strategic plan
Action	Task, activity
Aim	Objective, goal
Responsibility	Lead, owner, project manager
Outcome	Deliverable, result, key performance indicator (KPI)
Evaluation	Review
Online	Synchronous, asynchronous, remote, self-paced

## 8.3. How to develop an action plan

The first step is to agree on a format for the plan. An example is provided at the end of this guide and can be adapted to suit your purpose.

The second step is to identify the overall objective or aim of the project, programme or other initiative. There may, in fact, be more than one objective and each one needs to have its own set of actions or tasks.

At this point, it is important to do some research. There is no point in re-inventing the wheel if somebody else has already done a lot of the hard work. Has anybody else in your institution or TVET system tried to achieve the same objective? If not, what about any other TVET institution or system? Are there any guides which will help you develop your plan? What can you learn from them?

Once the objective has been agreed on, the next step is to list all the actions you need to take to achieve the objective. These actions must be written in such a way as to have clear outcomes which can be measured in some way. Rather than “develop bricklaying course materials which can be placed online”, the action needs to also include specific outcomes such as “write and upload at least 10 worksheets for Module 6 which can be accessed on our online platform”.

Once an action has been agreed on, you need to give it a timeframe; a start and finish date. In many cases, one action is dependent on one or several other actions. If the creation of an online platform is not ready, then uploading course materials will have to start after the platform has been commissioned. There may also be set templates for specific types of course materials which need to be tested, writers trained to use them and alternative formats considered.

Before implementing the plan, take some time to review the objective. Are you clear about the objective and does it meet the needs of your TVET institute or system? Do the actions and their outcomes clearly lead to the objective being met? Is there a clear logic running through the whole set of actions and their timelines?

Finally, is it achievable? Do you have the resources, time, people and funds to carry out the project?

#### 8.4. How to monitor and update the plan

Once the plan is put into operation, there must be clear lines of responsibility for reporting on the status of each action. This information needs to be included in the plan itself, most often in the notes section and with an updated traffic light.

A key element of managing an action plan is to ensure the latest version is clearly marked and used for updating. A simple footer such as 'Current version – updated on 12 May 2022' helps to ensure previous versions are not used instead. If previous versions are kept, they can be marked 'Outdated version – archived 10 May 2022'.

An action plan is only as good as its value to the team, so constant updating is essential. Equally, the ability and willingness to change course and re-define, remove or add new actions and outcomes should not be seen as a failure of the original plan. Rather it indicates a flexible and responsive approach, which is more likely to achieve the overall objective.

#### 8.5. How to evaluate the outcomes

Before implementing the plan, take some time to review the objective. Are you clear about the objective and does it meet the needs of your TVET institute or system? Do the actions and their outcomes clearly lead to the objective being met? Is there a clear logic running through the whole set of actions and their timelines?

Once the plan is being implemented, the programme or project manager should regularly review progress. Are the timelines still realistic, are we on track with completing specific tasks, do we need more resources, and should we add or change any of the actions?

Once the project has been completed, a report on the outcomes should be produced. This report can take many forms but essentially describes what actions were taken, what the outcomes were and whether the overall objective was met. The report may also include a cost/benefit analysis or return on investment, a set of recommendations for further action and strategies to overcome challenges experienced during the project itself.

Finally, set aside some time for the team to celebrate their achievements!

## 8.6. Further reading and research

This Participant Manual includes a detailed list of organisations and references that can help you identify projects or initiatives that are similar to the one you are planning. As well as reading about their plans and achievements, you should try to contact them. Most project leaders and researchers are very supportive and can provide additional advice and guidance before you start your planning. They may also be working on a similar project of which they have yet to publish the results.







The link between researchers and project managers, and TVET managers and practitioners can always be strengthened and one of the best things you can do is reach out to them as you embark on your own initiatives.

## 8.7. Case study and template

**AIM: To improve our level of online delivery for the Diploma of Cooking**

**OUTCOME: 50% of course ready for online delivery**

Action	Outcome	Responsibility	Start date	Due date	Notes	Status
Check which delivery platform will be used	Delivery platform confirmed and capacity for our courseware also confirmed	DW	30 May	30 June	We plan to use MS Teams but need to check the system has the capacity for our Diploma	<div>Overdue / Problems</div> <div>Needs attention</div> <div>On track</div>
Teachers trained to develop or source courseware	Teachers have the skills to write and upload courseware. Teachers can also find external courseware which can be used	PH	10 July	30 September	<p>We need to set aside at least 2 days of training for our teachers.</p> <p>We still need to find a trainer. They must also be able to identify external courseware we can use.</p>	<div>Overdue / Problems</div> <div>Needs attention</div> <div>On track</div>

Action	Outcome	Responsibility	Start date	Due date	Notes	Status
Run a trial of at least one new online module	A separate plan for the trial is completed including an evaluation strategy. A trial is carried out with at least three different groups of students.	NK	30 May 18 July	15 June 31 July	Plan not ready. Expect to be completed by 30 June May need to postpone trials	 Overdue / Problems
						 Needs attention
						 On track
Complete schedule for the writing and uploading of courseware for remaining modules	A separate action plan setting out all courseware to be uploaded.	PH	5 October	15 October		 Overdue / Problems
						 Needs attention
						 On track

**ACTION PLAN TEMPLATE**

Action	Outcome	Responsibility	Start date	Due date	Notes	Status
						Overdue / Problems
						Needs attention
						On track
						Overdue / Problems
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