Diversifying the funding sources for TVET

Report of the UNESCO-UNEVOC virtual conference
16 to 22 January 2017

Moderated by Christine Uhder
Groupe de recherche et d'échanges technologiques (GRET), France

Published by
UNESCO-UNEVOC International Centre for
Technical and Vocational Education and Training
UN Campus
Platz der Vereinten Nationen 1
53113 Bonn
Germany
Tel: [+49] 228 815 0100
Fax: [+49] 228 815 0199
www.unevoc.unesco.org
unevoc@unesco.org

Photo used in Cover Design
Creative Commons © Flickr/Susan van Gelder
(colour adjusted and text inserted)

Layout: Wouter de Regt and Aldrich Mejia

Table of contents

Foreword

Technical and vocational education and training (TVET) plays a key role in the achievement of the 2030 Agenda for Sustainable Development. It is a powerful tool to provide access to decent work for all, provides lifelong learning opportunities, and supports Member States' transitions towards the sustainable societies and economies. Sustainable Development Goal 4 calls on Members States to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" and sets a number of targets related to TVET.

While skills development is considered a priority by Member States and the international community alike, stakeholders may still find it difficult to develop financing systems to develop and transform their TVET systems to cater to today's demands. One challenge is that TVET systems tend to be more expensive compared to general education, while they receive a low share of public budget compared to other levels of education.

With an understanding that it is important for governments and other stakeholders to appreciate different benefits individuals, enterprises and governments can obtain from investing in training, UNESCO-UENVOC organized a Virtual Conference on the Return on Investment (ROI) in TVET in 2016.

The first virtual conference this year proposed to address the issue of funding of TVET from a different angle, to focus on how the sources of funding for TVET can be diversified by bringing different actors.

UNESCO-UNEVOC thus organized a Virtual Conference from 16 to 22 January 2017 on the UNEVOC TVeT Forum. Moderated by Christine Uhder, the conference provided an opportunity for participants to share experiences, tools and best practices on the crucial issue of financing skills development. It built on and provided insights from comparative studies conducted on the subject in South-East Asia (by the French Development Agency, UNESCO, and Gret) and in Latin America and in Sub-Saharan Africa (by the French Development Agency, the Association for the Development of Education in Africa, and Gret).

The Virtual Conference was attended by 219 experts from 81 countries. The high level of participant engagement across the six discussion topics highlighted the need to reflect and discuss about financing strategies, the including other stakeholders, and ensuring that funding systems are in line with national development priorities.

This Virtual Conference was the seventeenth in a series of moderator-driven discussions introduced by UNESCO-UNEVOC in 2011. Conducted on the UNEVOC TVeT Forum – a global online community of over 4,500 members – and guided by an expert, these discussions provide a platform for sharing of experiences, expertise and feedback. We would like to thank Christine Uhder for sharing her expertise with the wider TVET community, which we hope will further the discussion and enable TVET policy-makers and institutions to diversify the sources of funding for TVET in their countries. We would also like to extend our sincere gratitude to all participants who took the time to share their experiences, knowledge and insights and contributed to the development of this report.

Shyamal Majumdar
Head of UNESCO-UNEVOC International Centre

Introduction

Why is the topic of funding in TVET important?

Technical and vocational education and training (TVET) is considered a powerful tool to prepare youth for the labour market and provide lifelong learning opportunities to adults. It plays a strategic role in the achievement of the 2030 Agenda for Sustainable Development.

In particular, Sustainable Development Goal 4 on Education calls on Members States to "ensure inclusive and quality education for all and promote lifelong learning". It notably targets "an equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university" (SDG4.3) and a "substantial increase in the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship" (SDG 4.4).

These targets encourage a vision of TVET that supports the transition towards inclusive and sustainable societies and economies. The vision also means that TVET systems will need to develop, transform and adapt to remain relevant.

Despite the priority displayed by the States and the international community to skills development, TVET remains largely underfinanced. First, because it is expensive compared to general education (given the high costs of material, equipment, facilities), but also considering the low share of public budget dedicated to TVET compared to other levels of training.

Demographic data and the World Bank's World Development Report entitled "Jobs" (2013) also provide a number of insights on the challenges facing training systems in the near future. These include:

- Demographic changes: in the next 15 years, the global population is expected to increase by more than one billion people, reaching 8.5 billion in 2030 and 9.7 billion in 2050 (World population prospects, 2015). This demographic trend will mechanically result in a considerable increase in the training offer needs, and thus in the necessary resources to support it;

- Changes in the labour market: today's labour market is characterized by a high share of self-employment and informal employment (formal salaried jobs only represent half of the jobs available worldwide), gender inequalities (less than 50% of women occupy a job worldwide, against almost 80% of men), urbanization (54% of the world population lives in urban areas) (WDR, 2013). These developments will bring significant changes in the skills required in the labour market and will have an impact on the type of TVET offered. It notably implies a paradigm shift, as underlined by the European Commission (2012), to take into account not only a school-based approach of TVET, but also "non-formal programmes which may be delivered in the workplace", which "do not lead to formal qualifications and encompasses training in the informal economy".

In order for TVET systems to change and adapt to these and other developments and contribute to the achievement of the global sustainable development agenda, the financing of TVET systems will become a topic of key importance.

Objectives and scope

The Virtual Conference organized from 16 – 22 January 2017 on the topic of "Diversifying the funding sources for TVET" was attended by 219 participants from 81 countries. It facilitated the sharing of experiences, tools and best practices on funding for TVET, and built on comparative studies on the financing of skills development conducted in South-East Asia (French Development Agency, UNESCO, Gret), in Latin America, and in Sub-Saharan Africa (French Development Agency, Association for the Development of Education in Africa, Gret).

In the next 15 years, the global population is expected to increase by more than one billion people.

Main questions under discussion

The conference was mainly organized around three main topics:

- Improving the cost-efficiency of public resources: A first step to address the lack of resources to fund TVET is to promote a cost-efficient use of public resources, notably through the implementation of output-based funding approaches. The conference focused on possible approaches and advantages and risks of output-based funding strategies. It also asked the question how output-based systems should be designed to function appropriately;
- Supporting the development of income generating activities by training providers: training providers are increasingly pushed to develop income generating activities to complement their resources. The conference offered the opportunity discuss how training providers can be supported in developing income generating activities, the risks associated with implementing such a strategy, and how these activities should be implemented;
- Mobilizing the industry through the introduction of tax- or levy systems: one of the ways to improve funding for TVET involves mobilizing the industry through the implementation of tax or training levies. The conference focused on participants' experiences with such systems, recommendations for the implementation of tax/levy systems, and on how they can be managed and used strategically.

Summary of the virtual conference discussions

The lack of resources raises the questions about of funding priorities

A common concern that was shared by all participants of the conference relates to the lack of funding. In many countries, it was underlined that the 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. The training offer is often limited to the capital city and other major cities, but rarely reaches the rural and often poorer areas.

"There's little or no funding in Nigeria, because attention or priorities are not placed on skills development. Right now, funding of TVET remains a mirage due to the economic recession that has engulfed the country."
(Akpokiniovo Duke Ejaita, Nigeria)

"In our country (Somalia), we are facing huge financial problems because of our weak and unsettled government which cannot reach all the regions, except the capital. The financing agents are very limited and the number of youngsters who are eager to get such training are increasing day by day. [...] I recommend that: 1) financing strategies should be based on equity and equality approaches; 2) more resources are needed for needy countries to improve the number of skilled persons."
(Duale Ali Muse, Somalia)

The lack of resources available for TVET raises the question of the State's funding priorities when it comes to TVET, reflected in the proportion of the education budget that is spent on skills development. The funding of TVET often represents a small share of the education budget compared to general education, while many statistics on the outcomes of training systems show that TVET students integrate faster in the labour market.

One of the reasons for the relatively limited spending on TVET is the poor image governments and families have of the sector, with many considering it as less prestigious than general education. Another reason for the limited investment in TVET is the higher costs induced by TVET compared to general education.

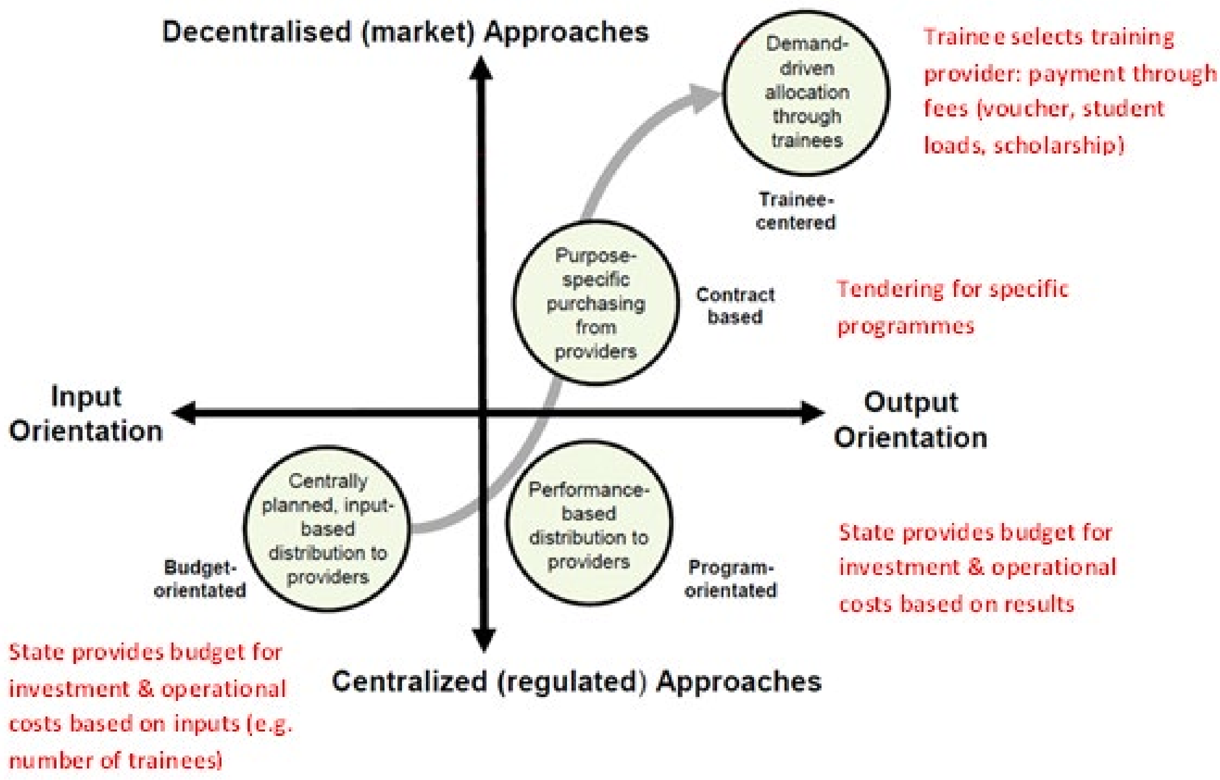
"I think that TVET needs to be recognized seriously as really a powerful tool that prepare labour force for economic development and poverty reduction. But the way I see it is that most of the decision makers neglect it, probably because of higher costs involved in running TVET institutions. But looking at the rewarding side or advantages provided, such as the increase in employment and even for reduction in crime levels, more priority should be devoted to it."
(Manuel Caetano-Mozambique)

International partners (such as the World Bank, African and Asian Development Banks, etc.) were often mentioned as an important source of funding, but only complement available resources for TVET (mainly investment costs).

Using public resources more efficiently through output-based approaches

Participants also discussed the possibility of improving the funding of TVET by ensuring a cost-efficient use of available resources.

States are gradually moving away from budget-oriented funding (where budget is based on inputs such as the number of trainees, the cost of utilities and material, teachers' wages, etc.) to adopt funding approaches that take into account the quality and relevance



Source: G. Sprecht, 2014

of training and strategic priorities and sectors. In such approaches, public budgets are allocated based on performance criteria, enabling governments to use scarce resources in a more efficient way.

Three main approaches were presented in this regard:

- funding training providers based on performance indicators, where a given percentage of a training provider's budget is subjected to:
    - the achievement of specific outputs, such as graduates' employment rate;
    - the compliance with quality indicators that are relevant for vocational training, such as industry participation in the governance of the institution, the inclusion of workplace training in curricula, industry experience among teachers, etc.;
- funding on a contract-base, where budget is allocated through tendering for training programmes;
- a trainee-centered funding, where public budget is allocated via the trainee who selects the training provider (through voucher, student loans, scholarships).

These funding approaches are synthetized in the diagram above.

Participants also discussed the risks associated with performance-based funding. They include:

- difficulty in monitoring the outcome: the implementation of performance-based funding requires efficient and transparent tools and institutional capacities to assess if the funding criteria is fulfilled. It may also be expensive and time-consuming with regards to monitoring ad evaluation;

"The approach for output-based funding that works well for the Fundación Paraguaya is market-oriented programs. This way, we make an efficient use of resources and get good results such as a high rate of employability, scalability of our programs. To mention a disadvantage, the market-oriented approach is subject to work demand, whereby requiring a constant update and monitoring."
(Solange Rios, Paraguay)

- difficulty in accessing such schemes by poor and less-favoured regions: poorly defined performance criteria may lead to the concentration of training offer in the most dynamic areas, where it is easier to fulfil performance criteria such as employment rate after graduation. They may also incite training providers to recruit wellperforming students to the detriment of those facing academic difficulties in order to improve the average graduation rate of their centre;

- performance-based funding: may also expose training providers to financial risks if they are not able to fulfil the performance indicators.

"Here are some of the risk associated with performance based funding: difficulty in effectively monitoring the outcome, difficulty in accessing the scheme by the poor… It is also risky for the training providers should the Donor refuse to pay."
(Akpokiniovo Duke Ejaita, Nigeria)

Possible approaches to mitigate these risks were presented, such as:

- keeping direct financing (not related to the achievement of performance indicators) for vulnerable groups or regions;
- introducing control factors to mitigate aspects that are not attributable to training providers' efforts.

The Finnish experience was shared on this aspect (see Bibliography). When designing their indicators to measure the performance of their TVET system, background factors that affect student outcomes were taken into account in order to improve comparability between training providers, namely:

- Characteristics of the trainee: age, gender, mother tongue, family status (marital status, children), average grade on the leaving certificate from comprehensive schooling, qualifications completed before the reference period;
- Characteristics of education: starting term of studies, field of education, type of education (e.g. apprenticeship training), enrolment in a special needs programme;
- Characteristics of the region: individuals' sub-region of residence.

This enabled the Finnish State to take into account equity aspects related to regional location and social background. To mitigate the financial risks for training providers while maintaining incentives to improve performance, the share of training providers' budget that is subjected to the attainment of performance criteria was limited to 3%, while simultaneously maintaining a core funding from the State.

It was also recommended during the Virtual Conference that output-based criteria should be linked to long term national development strategy and the role of TVET in the National Development Plan.

"Output-based funding is a serious consideration but must be linked to long term national development and the role of TVET in the National Development Plan. The best approach would be a centralised regulated approach. The State, through consultation with stakeholders and research, decides on the areas for target training and monitoring of trainee and facilitators output and performance. A major risk is areas left undeveloped, but becomes critical at a later stage. A major advantage would be if the limited funds available would be used for critical areas of training that can contribute to national development."
(Tricia Gilkes, Trinidad and Tobago)

The Finnish example provided interesting insights on this aspect also. TVET's performance was evaluated on the basis of the objectives that the legislation and the Ministry of Education responsible for TVET had set. These Performance Indicators have been developed by the Ministry of Education and Culture in close cooperation with education providers, researchers and data producers to ensure the feasibility of their output-based funding system.

One participant stressed the importance of defining funding priorities, and that funding one priority sector should not be to the detriment of another:

"The crucial thing is to ensure that the capitation from the government does not discriminate one sector from the other."
(John W. Simiyu, Kenya)

The South Korean experience was presented as particularly illustrative of a sequenced approach to education funding that is designed to support the needs of the economy. In the 1950s, the Korean government conceived a six-year Plan for Completing Primary Education and invested around 80% of the education budget in primary education in order to switch to labour-intensive light manufacturing in the 1960s. After universalizing primary education, the government shifted its investment focus to secondary education in the 1960s to supply skilled workers to heavy and chemical industry. It then shifted to higher education in the 1980s and 1990s as Korea's economy moved to more advanced level. Realizing in the 1970s that the education system alone could not supply the workforce needed to implement the economic development plans and support their competitiveness strategy, the Republic of Korea also introduced a levy system in 1976 aiming at encouraging companies to provide continuing training to their workers (see AFD/UNESCO/GRET comparative study in South-East Asia).

The topic dedicated to tax- and levy systems provided more information on these aspects.

Income generating activities as a tool to complement resources

The Virtual Conference also focused on income-generating activities (IGA) as a means to complement training providers' resources.

The discussions led to the identification of three main approaches to develop IGA.

The first consists in creating business by selling the goods and services produced by trainees. The example of Fundación Paraguaya was mentioned. The institution creates productive units in its training centres in order to sell goods and services to the local market. Other interesting cases were shared by participants from Ghana and Nigeria:

"In Ghana, quite a number of approaches have been carried out but the one I wish to share with you is the setting up or re-vitalization of Production Units in the TVET Institution where they select a trade area or department that they view as having a high business potential are supported with equipment, funding and technical advice."
(Samuel Thompson, Ghana)

"In Nigeria, it is the government policy for each technical college in the country (state or federal) to establish a Production Unit. This is meant to serve two purposes: for students to have practical hands on experience, especially since there is a dearth of industries, and secondly to generate funds for the institutions. The take-off grant is provided by the state government. The resources generated are used to sustain the Unit and pay the relevant departments involved in the job. Monitoring is carried out by the regulatory body."
(Amina Idriss, Nigeria)

An interesting illustration was also provided by Maria Baier D'Orazio, from Germany, on CAPA (Centre d'Apprentissage Professionnel et Artisanal), a private centre for vocational and skills training in the Democratic Republic of Congo, whose strategy to diversify its funding sources, and notably develop income generating activities, has been well documented. CAPA obtained in 2013 an important construction contract from Doctors Without Borders which they used to train 39 young people to become masons by learning on the job at the construction site.

The second approach identified to develop IGA consists in bringing businesses within the school by renting the equipment to local entrepreneurs. The example of Young Africa's training centres was mentioned, where local entrepreneurs can rent the tools and equipment from the centre, but these entrepreneurs are also requested to train and supervise students.

The last approach that was discussed consists of delivering services outside of the school's premises through community projects. In Thailand, public training providers are involved in community projects such as small scale construction, repairing houses and facilities, or electrical wiring. This was also introduced as a means to develop public awareness of the value of TVET.

The implementation of IGA brings many benefits to training providers. It helps them develop their relations with companies, deepen their understanding of labour market needs and provide opportunities to their students to gain real life experiences, while supplementing their primary source of income.

The documentation shared on CAPA also shows that the development of IGA helped the training center rationalize and optimize the use of its

Young Africa gives disadvantaged youth the chance to gain skills for employability. To learn more about the initiative, please visit the UNESCO-UNEVOC Promising Practices Database resources. The training center no longer artificially produces goods and products "just in order to trash them." Rather "CAPA now uses everything that the school has access to in an efficient and productive way" (Guitars, bricks and sailors, 2011).

It was stressed that the development of IGA is however often limited by:

- lack of business mentality of training providers: having competent administrators and quality trainers does not mean that the centre has the human resources to become a successful business. The mobilization of a manager with business abilities among the school's staff could be a first step;

"I think that one of the biggest problems with regards to successful income generating lies in the fact that schools or training centres are not business people. Sometimes schools do have assets but they are not able to use them for income genrating. To be good administrators, excellent pedagogues or competent trainers does not mean that you also show the characteristics for successful business. If a training provider has to finance itself, it would be wise to have a manager with business abilities among its staff."
(Maria Baier-Dorozia, Germany)

- lack of quality equipment and even technical capacity of teachers with regards to the needs of the labour market: training centres' equipment is often obsolete compared to the equipment used by modern companies and teachers are not trained in the latest technical developments and techniques. The companies that could actually pay for services from training centres therefore do not solicit them. Some training centres in Laos have tried to narrow this gap by developing win-win relationships with companies. Here, when a new technology is introduced on the market, international companies (such as Ford, Kubota, Toyota) donate equipment to the training centre and organize the training of their trainers so that, in return, the trainees would be trained according to their needs (see AFD/UNESCO Study on Financing TVET in South-East Asia, forthcoming);
- status of the training centre: the implementation of IGA implies that training centres have the right legal framework to be allowed to sell produced goods.

"Unfortunately, the current status of our training centres do not allow the selling of produced goods. We would need to develop a new status in collaboration with the concerned key-stakeholders, such as the Ministry of finance and budget."
(Hary Lala Razafinimpiasa, Madagascar)

One participant also raised the idea of opening public procurement to training providers, which could represent an opportunity for them to develop IGA:

"I wonder whether anyone attending the conference is aware of any public procurement measures in place that support income generating activities in VET? I imagine this may open up some possibilities for production in a more protected environment."
(Maria-Carmen Pantea, Romania)

Another participant also warned that training centres should not 'lose sight' of their primary objective; to teach. Other risks involved with the development of IGA included:

- unfair competition with local enterprises;
- diversion in the use of training equipment for commercial purpose: an example is provided in one of the documents that was shared during the conference (see Baier D'Orazio et al. (2016)). After the centre developed a well-functioning garage, the trainees were not allowed to touch the cars anymore because the management was afraid they might damage them;
- extent of IGA: they become so developed that they interfere with the training programme;
- linking training to IGA can also hinder the diversification of training: for example when students only receive training on the activities linked to the workshop.

When a training centre tries to diversify its resources by combining training with production, the key is therefore in finding a good balance between training and commercial activities. The documentation that was shared on the experience of CAPA in Congo provides interesting recommendations (Baier D'Orazio et al. 2016):

- allocate a dedicated staff member to each one of the two activities (training and production) with specific training or production targets;
- employees of the two units should be strategically aligned so that they understand the utility and the complementarity of their activities;
- each activity should have a specific portion of time allocated to it each day and should be closely monitored;
- paying a small amount to the trainees involved in production is a way to motivate them and prepare them for their work situation in the future;
- since disagreements appear from time to time between the two units with regards to the use of tools, it is best to try and equip each of the units with its own tools;

- a training centre's self-financing activities should not compete with the graduates' work on the mar¬ket. Whenever possible, a training centre should create production units or services that are profitable while being different from what graduates are able to do (either by innovating instead of carrying out standard activities, locating production/services activities in areas that are more difficult to access for individual economic operators; or by involving graduates in orders for the training centre).

Many other interesting recommendations can be found in the bibliography that was shared (Baier D'Orazio et al. 2016; 2011).

Individuals and family contributions to the funding of TVET can ensure that all students are able to have equal access to quality and affordable TVET.

Individuals and families can also contribute to the funding of TVET

The mobilization of individuals and families in the funding of TVET through tuition fees was also mentioned during the conference. One participant commented that students can be asked to pay at least a small amount, even if they come from a disadvantaged background:

> "Let all students at least pay a small amount, even if they are poor. This helps you select the most motivated students. It gives them self-esteem and it increases your sustainability."
> (Cees Van Breugel, Netherlands)

Some countries/training providers have introduced "Study first, pay later" schemes for poor students, or a "payment in kind" either by working for the training centre after the end of the training, producing items that the training centre can sell, or asking trainees to become helpers in workshops owned by the centre during the training. More structured approaches consist in the development of education loan systems, where the cost of training is repaid later.

Other training providers have chosen to cross subsidize the cost of training to maintain their social purpose (as opposed to a strictly commercial approach of training).: This is done by asking "normal" students to pay the full costs of training and using these resources to subsidize the training of poorer ones (example of CAPA in Congo).

Other training providers have chosen to cross subsidize the cost of training to maintain their social purpose (as opposed to a strictly commercial approach of training). This is done by asking "normal" students to pay the full costs of training and using these resources to subsidize the training of poorer ones (see example of CAPA in Congo).

> "For example Don Bosco in Egypt offers and sells short TVET courses to yearly thousands of participants, which have to pay the full costs for their training. the income helps Don Bosco to finance training for poor youth."
> (Thomas Gerhards, Germany)

These short-term courses are provided in high demand labour market sectors, which enable the trainee to recover the cost of training in a very short period. In the example of the course on washing machine maintenance that was presented, trainees recovered the 75 euros training fee in an average of 14 days (since the monthly income once in activity was on average 165 euros). In Don Bosco's approach, the number of applications is regarded as an indicator for the demand of the labour market and helps them monitor their training offer.

Specific attention should nevertheless be given to the amount of training fees, since the contribution of individuals/families to TVET (especially compared to general education) is already high. Raising the number of trainees to increase the training centre's revenue might also be a trap, since it may affect quality of training.

Apprenticeship and alternance-based training help share the financial burden

One of the participants mentioned the introduction of apprenticeship as a relevant approach. Apprenticeship and alternance-based training indeed presents many advantages, because it helps mobilize companies in the implementation of training activities, while improving training relevance.

The introduction of alternance-based training can also be considered as a means to diversify funding. In such an approach, part of the training costs is transferred on companies who bear the:

- direct costs of training (apprentice wage, salaries for training personnel, teaching material, equipment, building infrastructure etc.);
- indirect costs, such as opportunity costs (forgone earnings as unskilled workers) and drop-out costs.

Specific recommendations to implement apprenticeship systems were shared:

"I consider it essential that:

1. Specific training programmes should be implemented. They should be complementary to the training paths already provided by the institutions. This will require funding for technical equipment and material resources;

2. Establish agreements approved by the State between educational institutions and companies to delineate the training requirements. One response may be to modify the curricula or to train the teaching staff in practical skills.

3. Financing granted by the State (through scholarships) for training."

(Claudia Migliaccio, Argentina)

International experience shows that companies might be reluctant to take on apprentices, which can be overcome by introducing incentive or compelling mechanisms:

- tax exemption mechanisms for companies who take on apprentices (incentive approach): this is for example the case in Thailand, where tax reduction can reach up to 100% of the expenses incurred by apprenticeships;
- the introduction of an apprenticeship tax (compelling approach), as in France, where the apprenticeship tax reaches 0.68% of payroll on all employers, except those who train apprentices;
- in Denmark, an Employers' Reimbursement Fund, financed by employers themselves, was introduced in 1977 to provide incentives for firms to engage in the provision of apprenticeship places.

These financial mechanisms go hand-in-hand with awareness campaigns amongst companies on the benefits they gain from alternance-based and apprenticeship training, notably:

Participants discussed the implementation of alternance-based training as a way to train students and ease the costs of TVET.

- benefits gained during the training, which arises from the trainee's productivity;
- benefits gained when a company recruits the trainee after completion of training, notably: i) lower risk of inappropriate hiring and staff turnover; ii) avoiding costs of replacement; iii) long-term differences in productivity between self-trained employees and externally recruited workers; iv) improved reputation of the company; v) no costs of recruitment and induction; vi) no costs of firm-specific continuing training.

Cost-benefit studies on apprenticeship training can be used as tools to raise awareness among companies. An illustration of such a cost-benefit analysis that looked at the Filipino Dual Training System was shared with the participants (see Mapa et al. (2016) in the Bibliography).

Where they have been implemented, these approaches have helped not only to increase the training offer by mobilizing companies, but also to improve trainees' employability who have acquired hands on experience during their training (here also, see AFD/UNESCO/GRET comparative study in South-East Asia for more information).

Mobilizing the industry through the implementation of levy- or tax-systems

The last topic the Virtual Conference focused on was the mobilization of the industry in the funding of skills development through the introduction of tax or levy-systems. Two main approaches were presented:

- an approach commonly called "Train or pay" where only companies that do not provide training (up to a certain number of workers or a certain number of hours) have to pay a tax, generally calculated on payroll; and

- the introduction of a training or apprenticeship levy commonly imposed on companies' payroll (less often on company profit tax, value product, foreign workers, fixed amount per worker, etc.). The percentage of the training levy generally ranges from 1 to 3% of the payroll.

The introduction of such levies is often concomitant with the setting-up of a training fund, a specific body which provides a secured channel for the management of the training levy, often distinct from State. Such training funds define and manage training schemes with the aim to promote skills development according to the needs of the economy and national economic priorities.

The levy collected can be used to finance various types of training (see Johanson, 2009):

- pre-employment training, notably supporting work-based training or alternance-based/ apprenticeship training, with the aim to increase the supply of qualified workers according to the skills needs of companies;
- continuing training for active workers with the aim to increase productivity and competitiveness of firms by raising the skills of their workers;
- equity training which specifically targets disadvantaged groups (informal workers, unemployed, youth, etc.) that are not covered by enterprise training schemes.

These training funds can be:

- sectoral, in which case the levy is raised on the companies of a specific sector and reinvested in the development of competencies of that sector (e.g. South-Africa);
- inter-sectoral, in which case the training levy is pooled from various sectors, mutualized at national level and reinvested in the economy according to national policies and priorities (e.g. Malaysia, Singapore, various countries in Sub-Saharan Africa);
- or integrated in a global unemployment-insurance scheme, as it is the case with the employment insurance fund in South Korea.

Two participants shared the experience of the Kenyan levy-system. In Kenya, a training levy fund was established in 1971. It is managed by the National Industrial Training Authority (NITA), that is empowered to collect from registered employers in all sectors a levy of 50 shillings (approx. 0.45€) per employee per month. This fund is used to reimburse approved trainings with a cap of up to 200 % of the employer contributions through two main training schemes:

- short term skills upgrading programs from 80-120 hours;
- apprenticeship from 1-3 years.

One participant stressed the difficulties facing the levy system in Kenya and made suggestions to overcome them:

> "The industry may view the contribution as a tax because only about 22% utilize the Levy Fund to train their operatives. This is due to the fact that most industries do not understand the processes of seeking authority to train and requiring reimbursement of training cost from National Industrial Training Authority. Perhaps an awareness campaign should be instituted by NITA to counteract the perception that the Levy Fund is a form of tax and also inform the industry on the process of application for training of operatives and refund of the costs."
> (John Simiyu, Kenya)

The issue of organizing training for SMEs and the informal sector was also raised. Many training funds around the world have tried to simplify their procedures to ease the access to training and adapt to the constraints of their targets. SMEs have received particular attention in that respect given their large contribution to employment, national income and exports. In Malaysia for example, the Human Resource Development Fund (HRDF) has implemented an "SME on the Job Training" scheme, which was introduced to help SMEs train their workers and minimize work interruption when they send workers to external training. According to this scheme, in-house training

Involving industry in the financing of TVET is one way to diversify the funding of TVET, is delivered by an SME's own employee (who is a skilled worker or the trainee's supervisor). SMEs are reimbursed on the basis of $1.12/trainee/hour.

It is also interesting to note that, through the various schemes the HRDF has implemented, the total amount of levy reinvested in micro and small businesses is higher than the amount they actually paid through the levy. Of the $137 million contributed in 2015 for all businesses, 24% came from micro and small enterprises but 35% of the levy was reinvested in the development of skills within these micro and small enterprises (see AFD/UNESCO Study on Financing TVET in South-East Asia, forthcoming).

The Singaporean Skills Development Fund (SDF) is another example: it has set up special incentives for SMEs to train by introducing a training voucher to companies with less than 50 workers. In this approach, SMEs pay 30 to 50% of the training costs upfront while the rest is supported by the SDF. This training scheme was introduced in order to alleviate cash flow problems incurred by the training. According to Johanson (2009), the voucher helped SDF reach 65 percent of enterprises with 10 to 49 workers and 14 percent of those with fewer than 10 workers. SDF has also mainstreamed a wide range of pre-approved training programmes, which can be subscribed through its "Approved-in-principle system" that targets small companies who have neither the resources nor the competencies nor the critical mass to formulate and run their own training programmes.

It is also worth mentioning that some countries pay particular attention to the development of skills in the informal sector and rural areas. This is the case in Côte d'Ivoire where the Fund for the Development of Vocational Training (Fonds de Développement de la Formation professionnelle - FDFP) has created a unit that is dedicated to the management of training projects from the informal sector, including the agricultural and rural sector.

Finally, it was stressed that the levy rate is often adjusted according to the size of the company or according to the sector, in order to take into account the dynamism of a sector and the contributive capacity of a company. Various examples were presented.

In the case of Malaysia, the categories of employer subjected to the levy vary according to the sectors. It concerns employers with 50 Malaysian employees and above in the manufacturing, mining and quarrying sectors; employers with 30 Malaysian employees and above in food and beverage services; employers with 10 Malaysian employees and above in 38 selected industries in the services sector. These categories of companies are subjected to a mandatory payment imposed at a rate of 1% of total payroll.

In the case of South Korea, it is the rate of the levy that varies according to the size of companies:

- enterprises with 1-149 employees pay 0.25% of their payroll;
- priority Support Enterprises with 150 employees or more pay 0.45% of their payroll;
- enterprises with employees 150-999 except Priority Support Enterprises pay 0.65% of their payroll;
- and enterprises with 1,000 employees and more pay 0.85% of their payroll.

In the Brazilian system, the levy rate varies according to both the size and the sector of the companies:

- in the industry sector (SENAI Training Fund): the levy amounts for 1% of monthly payroll and an additional levy of 0.5% is raised on industries with more than 500 employees;
- in the Commerce sector (SENAC Training Fund), the levy is 1% of payroll of all commercial and service sector enterprises;
- in the Agricultural sector (SENAR Training Fund), a 2.5 % levy is raised on the sale of agricultural products;
- and in the Land Transport sector (SENAT), a 1.5 % levy is raised on land transport firms, including self-employed ("trabajadores autonomos") owners of taxis and trucks.

Other participants mentioned that their country (Mozambique and Madagascar) just started the process of setting up a training levy-system.

In Nigeria, Amina Idriss presented the example of the Education Tax Fund (ETF), introduced in 1993 and later renamed Tertiary Education Trust Fund (TETfund). The Fund receives a 2% tax that is imposed on the assessable profits of all companies in Nigeria, and uses it to finance the rehabilitation, restoration and consolidation of all level of public tertiary institutions.

Many interesting reports were shared (e.g. international review of training funds in 70 countries; comparative study of 12 training funds in Sub-Saharan Africa) for in-depth information on the subject (see bibliography).

Conclusions and recommendations

To conclude, participants stressed that efforts to raise funding for TVET will not succeed if they are not part of a systemic strategy to support TVET.

At training centre's level, the viability relies on four main aspects:

- Financial viability, which results from the training provider's capacity to ensure its financial autonomy through a financial mix mobilizing public, private, and international resources to cover its expenses and ensure its development;
- Technical viability, which is linked to the training provider's capacity to supply a training that fits labour market requirements considering the content of training, how training is delivered (does it include work based training?), the equipment, the quality and experience of its teachers and its management board;
- Institutional viability by choosing a legal status and a governance system that is adapted to the institutional environment, recognition of the State for private training providers…
- Social viability, which is linked to the recognition of the training center by the main stakeholders of its environment and its capacity to develop partnerships with local authorities, companies, families, etc.

At the national level, several recommendations were made to enhance the quality of the TVET system and diversification of TVET funding, among which:

- developing strong synergies between training providers and industry, notably in the governance of the TVET system;
- creating an enabling environment for TVET activities to thrive;
- reinforcing trainers' competencies;
- implementing enhanced quality assurance mechanisms;
- conducting periodic review of labour market needs and adapting training offer accordingly;
- raising awareness of the value and importance of vocational training, notably by communicating with society about the role and the efficiency of TVET in preparation for employment.

References

Background documents of the Virtual Conference

Uhder, C. (dir.) Forthcoming. Financing TVET: a comparative analysis in 6 South-East Asian Countries. AFD, UNESCO.

Walther, R. et C. Uhder. 2015. Financing TVET: main issues for an effective policy in development cooperation - Main outcomes and conclusions of the EU seminar. Brussels.

Topic 1: Improving cost-efficiency of public resources

Finnish National Board of Education. 2011. Performance indicator for initial vocational education and training in Finland. Helsinki, OPH.

Topic 2: Complementing training providers' resources through Income generating activities

Baier D'Orazio, M. and V.B. Mukuza. 2016. Guide for Practitioners of Vocational Training. Bukavu, CAPA. (English: "Income-generating for self-financing"; French: "L'autofinancement")

Baier D'Orazio, M. and V.B. Mukuza. 2011. Guitars, Bricks and Sailors. Uedem, Horlemann. (English: "Financial autonomy - an illusion or a realistic prospect?"; French: "Autonomie financière : illusion ou réelle perspective?")

Gerhards, T. 2013. Washing Machines and more – Short Courses for Micro-Entrepreneurs at the Don Bosco Institute in Egypt. Don Bosco Mission.

Topic 3: Mobilizing industry in the funding of TVET and skills development

Johanson, R. 2009. A Review of National Training Funds. New York, World Bank.

UNESCO. Forthcoming. Financing skills for work and education 2030: Contribution of the private sector. UNESCO, Cambridge econometrics.

Walther, R. and C. Uhder. 2015. Séminaire inter-pays du PQIP/DCTP sur le Financement de la Formation Professionnelle – Rapport général. Abidjan.

Walther, R. (Dir.), Uhder, C. et F. Doligez. 2014. Financement de la formation professionnelle en Afrique – Rôle et spécificités des fonds de financement de la formation professionnelle. Paris, AFD-ADEA. (English; French)

Topic 4: Mobilizing industry in the funding of TVET through apprenticeship- and alternance-based training

Mapa et al. 2016. Dual Training System in the Philippines: Challenges and Opportunities. University of the Philippines.

Participation

Number of participants: 219
Number of countries from which participants came: 81

UNEVOC Network Members: 60 (27%)
Male: 150 (69%)
Female: 69 (31%)

Name	Institution	Country
Abbas Sumar	Niagara College, Niagara Falls	Canada
Abdi Hirsi Ali	Localnon-governmentalorganization,Mogadishu	Somalia
Abdi K. Tiony	Rift Valley Technical Training Institute, Eldoret	Kenya
Abdourahmane FAYE	Bureau Formation Professionnelle Agricole, Dakar	Senegal
Abdul Wahid Ulfat	Ministry of Education, Kabul	Afghanistan
abdullahi farah	save the children international, Mogadishu	Somalia
Abdulsalam mohamed azabidi	Ministry of vocational and technical education, Sanaa	Yemen
Abebe Alemu	The Federal Democratic Republic of Ethiopia Technical and Vocational Education , Addis Ababa	Ethiopia
Abebe Alemu	The Federal Democratic Republic of Ethiopia Technical and Vocational Education , Addis Ababa	Ethiopia
Adam Mohamed	Education For All Somalia (EFASOM), Mogadishu	Somalia
Adil Mobashir	Descon Technical Institute, Lahore	Pakistan
Agung Pamungkas	Australian Embassy, Jakarta	Indonesia
ahmed abdalaal	University College of Applied Sciences - Gaza	Palestine
AJAY SINGH GILL	OM INSTITUTE OF VOCATIONAL EDUCATION & TRAINING, Narwana	India
Akpokiniovo Duke Ejaita	University of Nigeria, Nsukka Campus, Enugu	Nigeria
Alberto Luis Torres Ferrales	Universidad de Granma. Cuba, Niquero	Cuba
Aldo Blengini	INET CFE ANEP Uruguay, Montevideo	Uruguay
Alen Hadziefendic	Provincial School Board of the Austrian Federal State Vorarlberg, Feldkirch	Austria
alexis hoyaux	lux-development	Luxembourg
¯Ali A. Khallaghi	Shahid Rajaee Teacher Training University	Iran, Islamic Republic of
Ali Christian Chinedu	University of Nigeria, Nsukka, Nsukka	Nigeria
Alix Wurdak	EU Delegation to Somalia	Somalia
Ama Takyiwa Nkrumah	National Vocational Training Institute, Accra	Ghana
Amina Idris	NATIONAL BOARD FOR TECHNICAL EDUCATION, Kaduna	Nigeria
Ani Hovsepyan	Yerevan Brusov State University of Languages and Social Sciences , Yerevan	Armenia
Antonio Dragone	AD1 College, CARLTON	Australia

Name	Institution	Country
Artur Gomes de Oliveira	Sergipe Federal Institute of Education, Science and Technology, Aracaju	Brazil
ARUNKUMAR		India
Arvind Kumar Sharma	Institute of Technical & Professional Studies of the IOED and the IPC, New Delhi	India
Ashok Kumar	TISS, Mumbai	India
Ashok Kumar	TISS, Mumbai	India
Ashwani Aggarwal	ILO, Pretoria	South Africa
Asim Hamid Butt	AIMS International , Bangkok	Thailand
AWUDU DAMANI MUSAH	GIZ, ACCRA	Ghana
Ayman Shukry Abdel Razek	Psychology Expert Teacher , Fayoum	Egypt
bahloul	IIPE-Pôle de Dakar, Dakar	Senegal
Baier-DOrazio, Maria	Consultante indépendante, Pforzheim	Germany
Banafsheh saleminezhad		Iran, Islamic Republic of
Barry Boubakary	APESS, Ouagadougou	Burkina Faso
Bashir Ahmed Mohamed	Ministry of Education, Culture and Higher Education, Mogadishu	Somalia
Betty Namubiru	BTC, Uganda, Kamplala	Uganda
Carmen Cecilia Yaffar	PROCOSI, La Paz	Bolivia, Plurinational State of
Carolyn Medel-Anonuevo	UNESCO Institute for Lifelong Learning, Hamburg	Germany
casimiro andela	ministerio de ciencia e tecnilogia, ensino superior e tecnico profissional, maputo	Mozambique
chijioke jonathan Olelewe	University of Nigeria Nsukka, Nsukka	Nigeria
Christine Uhder	GRET, Paris	France
Christopher Bangalie Kabah	Ankara University , Ankara	Turkey
Chukwunonso Isidore Chikwendu	University of Nigeria, Nsukka , Nsukka	Nigeria
Chukwunonye Anyakoha	University of Nigeria, Nsukka, Nsukka	Nigeria
Claudia MIGLIACCIO	Colegio Nacional de Quilmes, Quilmes	Argentina
Dabesaki Mac-Ikemenjima	Ford Foundation, Lagos	Nigeria
daianacardozo70@yahoo.com.ar		Argentina
Daniel Uchenna Chukwu	University of Nigeria, Nsukka, Nsukka	Nigeria
Debra Hope	TVET Council	Barbados

Name	Institution	Country
Deodonne Kunwufine	Ministry of Secondary Education	Cameroon
Divina Gracia Bandola		Philippines
Douyéri SORO	IPNETP, ABIDJAN	Côte d'Ivoire
Dr. Elizabeth Kyazike	Kyambogo university, Kampala	Uganda
Duale Ali Muse	Garbogado Vocational Training Centre, Garbahaarey, Gedo Somalia	Somalia
Ebadullah Ahmadi	Ministry of Labor and Social Affiars of Afghanistan, Kabul	Afghanistan
Ebhote oseojie gilbert	Student, Nigeria	Nigeria
Edgar Pereira	CERCICA, Estoril	Portugal
Elda ines toribio veras		Dominican Republic
Eliana Arauco	Cooperación Suiza en Bolivia, La Paz	Bolivia, Plurinational State of
eloka chinweoke	university of nigeria nsukka, enugu	Nigeria
Emamorose Felix	UNOPS Multipurpose YouthTraining Centre, Warri	Nigeria
Emeka Richman Anene	university of Nigeria Nsukka, Enugu	Nigeria
Emmanuel Mugarura		Rwanda
Eve Hadshar	Mott MacDonald, Cambridge	United Kingdom
Ezemma, Joseph Chukwugboriwe	University of Nigeria, Nsukka, Nsukka	Nigeria
Farah Shukri Ahmed	Norwegian Refugee Council, Mogadishu	Somalia
Favour Amarachi	University of Nigeria Nsukka, Enugu state	Nigeria
Favour Amarachi Moghalu	University of Nigeria, Nsukka., Enugu	Nigeria
Felipe Civita Ferreira	Bow Valley College, Calgary	Canada
Firehiwot Tesfaye	ATTSVE Project, Addis Ababa	Ethiopia
Ganesh	College, Vellore	India
Gerhards, Thomas	Independent Consultant	Germany
GINA LABOR-OBIERNA	Don Alejandro Roces Sr. Science-Technology High School, Quezon City	Philippines
govindha rajan sappany pillay	INSTITUT TEKNOLOGI INOVASI, KUALA LUMPUR	Malaysia
Guangyu Wang	UNICEF , Beijing	China
Guenter Schieske	Vocational Training Programme 2010	Viet Nam
guillermo marroquin		Ecuador
Gunter Diewald	Ministry of Education and Science, Tbilisi	Georgia
Hannah pugh	Dalhousie University, Truro	Canada

Name	Institution	Country
Hari Prasad Nepal	Kathmandu University, Kathmandu	Nepal
hemalathakasirajan	student, chennai	India
Hyginus Osita Omeje	University of Nigeria, Nsukka Enugu State, Nsukka	Nigeria
Idris Youssouf ELMI	UNESCO, Djibouti	Djibouti
Ifeanyi Benedict Ohanu	University of Nigeria, Nsukka	Nigeria
Inke Hase	GFA Consulting Group GmbH, Hamburg	Germany
Janis McKeag		Anguilla
Jean Hautier	UNESCO-UNEVOC, Bonn	Germany
Jérôme GERARD	UNESCO/IIEP/Pôle de Dakar, Dakar	Senegal
Jo Fleischle	UNESCO UNEVOC, Bonn	Germany
Joao Da Graca Santos	European Commission, Brussels	Belgium
John Okewole	Yaba College of Technology, Yaba Lagos	Nigeria
John W. Simiyu	University of Eldoret, Eldoret	Kenya
John Wate	Ministry of Education and Human Resources Development, Honiara	Solomon Islands
José Luis Fernández Maure	TKNIKA (Institute of Applied Innovation and Research for TEVET, Errenteria	Spain
Josef Teuben	Teuben Consultancy and Training	Netherlands
JOSHUA WAKABA NDUNGU	Kenya Technical Teachers' College, Nairobi	Kenya
Joyce Albuquerque	Unifor, Fortaleza	Brazil
Kamal Armanious	UNESCO-UNEVOC, Bonn	Germany
Karl Skaar	Nobel Knowledge Building, Luweero	Uganda
Kashif Ismail	Swat	Pakistan
Katarina Hazuchova	SIOV , Bratislava	Slovakia
Kedibone Boka	JET Education Services, Johannesburg	South Africa
kholoud hussein amoush	balqa applid university , As-Salt	Jordan
Kirak Ryu	Korea Research Institute for Vocational Education and Training, Sejong	Republic of Korea
LAMRANI MUSTAPHA	Institut Technique Agricole de Larache, Larache	Morocco
Lawrence Wasserman PhD	MYMOBILEUNIVERSITY, Kulala Lampur	Malaysia
Lilian ogechi	University of Nigeria Nsukka, Enugu state	Nigeria
Lily Li	Georgian college, Barrie	Canada
Limbert Ayarde Velasco	Comisión Episcopal de Educación, La Paz	Bolivia, Plurinational State of
Lori Ann Jacobs	Ministry of Education , Georgetown	Guyana
Lucky Maluleke	Nelson Mandela Metropolitan University, Port Elizaberh	South Africa
Lusine Hovhannisyan	Gyumry	Armenia

Name	Institution	Country
MA Ka-lun, Kelvin	Hong Kong Council for Accreditation of Avademic and Vocational Qualifications , Hong Kong	China
MacDonald, Ulrich McCowan	GIZ GmbH, Bonn	Germany
Madgerie Jameson-Charles	The University of the West Indies, Port of Spain	Trinidad and Tobago
Mahara Goteka		Zimbabwe
Manuel Caetano	Ministério da Ciência, Tecnologia, Ensino Superior e Técnico Profissional, Maputo	Mozambique
Manuel Emilio Garcia Orozco	The University of Texas at Dallas, Richardson	United States of America
Marcelle St-Pierre	Collège communautaire du Nouveau-Brunswick, Bathurst	Canada
Maria-Carmen Pantea	BBU, Faculty of Sociology and Social Work , Cluj Napoca	Romania
Mark Butler	Bow Valley College, Calgary	Canada
Marlyn Davis	Ministry of Education, Georgetown	Guyana
Matthews Phiri	Human Resource Development Council, Gaborone	Botswana
Maureen Madu	University of Nigeria, Nsukka, Nsukka	Nigeria
Max Ehlers	UNESCO-UNEVOC International Centre, Bonn	Germany
Melissa mhanna	Bank Aud sal, Beirut	Lebanon
Mfitundinda	Capacity Development Employment and Services Board , Kigali	Rwanda
Michael Payne	SkillsDMC, Sydney	Australia
Mohamed Ali Hassan	Ministry of Education,Jubaland State of Somalia, Kismayo	Somalia
Mohamed Iidle Mohamud	Africa Educational Trust , Mogadishu/Benadir	Somalia
Mohiuzzaman	Skills for Employment Investment Program, Dhaka	Bangladesh
Mohsen Alghazali	Niagara College, Niagara Falls	Canada
Mole Lilian Chinyere	University of Nigeria, Nsukka, Enugu state	Nigeria
Muddassir Ahmed	KTDMC, Karachi	Pakistan
muhammad imran	bkuc, charsadda	Pakistan
muhiadin salad yusuf	somali chamber of commerce and industry, mogadishu	Somalia
Mulugeta Eshete Degefu	Ethiopian Federal TVET Agency, Addis Ababa, Ethiopia	Ethiopia
Mumitur Chowdhury	Tower Hamlets Lifelong Learning Service, London	United Kingdom
Mykhaylo Melnyk	Ukrainian Social Academy, Kiew	Ukraine
NANCY ANN GEORGE	self employed, Kingston	Jamaica
Nathaniel Ifeanyi Edeh	University of Nigeria, Nsukka, Enugu	Nigeria
Neville Rudman	Nelson Mandela Metropolitan University, Port Elizabeth	South Africa
Nilima Paliwal	scientech, indore	India
Niña Ana Marie Jocelyn Alindogan Sales	De La Salle University, Manila City	Philippines

Name	Institution	Country
norma carosio	CREAD, Buenos Aires	Argentina
Nozawa, Miki	UNESCO , Bonn	Germany
Nwangwu Chukwunweike Emmanuel	University of Nigeria Nsukka , Nsukka	Nigeria
Nwangwu Emmanuel C.	University of Nigeria, Nsukka, Nsukka	Nigeria
NWOSU OGOCHUKWU	University of Nigeria, Nsukka, Nsukka	Nigeria
Obasanjo Joseph Oyedele	University of Ibadan, Nigeria, Ibadan	Nigeria
Obe Pauline Ijeoma	University of Nigeria Nsukka, Nsukka	Nigeria
Odéssia Fernanda Gomes de Assis	University of Fortaleza, Fortaleza	Brazil
odju onoriode moses	delta state university, abraka	Nigeria
Ofelia Noemí Machuca Napaico	Ministerio de Educación, Lima	Peru
Ojo Samson Abayomi	University of Nigeria, Nsukka	Nigeria
Okanazu Oliver Okechukwu	University of Nigeria, Nsukka, Nsukka	Nigeria
Olga Ostrovskaya	Saint-Petersburg State Economic University , St. Petersburg	Russian Federation
Oyun Ayurin	Mongolian Labour Institut, Ulaanbaatar	Mongolia
P.KRIJA DEVI PRABHAKARAN	RIVERBANK ACADEMY SDN BHD, KAJANG	Malaysia
Pablo FLORES BRAÑEZ	Comisión de Comunas de la Ciudad de Buenos Aires, Ciudad de Buenos Aires	Argentina
Passant Sobhi	Technical University of Berlin, Berlin	Germany
Pat Bidart	Bow Valley College, Calgary	Canada
Patricia Andrade	Evolution, Quito	Ecuador
Patrick Chinedu	Government Technical Institute	Guyana
Paul Ostrowski	Lakeland College, Lloydminster	Canada
Pooja Gianchandani	Bonn	Germany
Potukanuma Adinarayana Reddy	Sri Venkateswara University, Tirupati-517 502 A.P	India
Prof. Emmanuel C. Osinem	University of Nigeria, Nsukka	Nigeria
Rajat Kumar Panigrahy	Govt Industrial Training Institute, Berhampur	India
Rakotondrazaka Raymondine	UNESCO	Madagascar
Ram Babu Adhikary	Council for Technical Education and Vocational Training, Bhaktapur	Nepal
RANDRIAHERISOLO Maminirina Denis	Ministère de l\'Enseignement Technique et de la Formation Professionnelle - Mada, Antananarivo	Madagascar
Rani Domah	Ministry of Tourism, Tsimbazaza	Madagascar
RAZALI HASSAN	Universiti Tun Hussein Onn Malaysia, Batu Pahat Johor	Malaysia
Ricardo Paredes Molina	Duoc UC, Santiago	Chile
Robert Okinda	Kenya Technical Teachers College, Nairobi	Kenya

Name	Institution	Country
Rod Miller	Southern Alberta Institute of Technology, Calgary	Canada
Rodrigo Nunez	Duoc UC, Santiago	Chile
Roland Ruhumuriza	De Lorenzo SPA, Milan Italy, Milan	Italy
Rónán Haughey	The Rónán Haughey Development Partnership, Sligo	Ireland
Saku Dukuly	Ministry of Education, Monovia	Liberia
Salim Akoojee	University of the Witwatersrand, Johannesburg, Johannesburg	South Africa
Sambujang Marreh	Naqaa	Gambia
Samiksha samiksha	T U bergakademie Freiberg, Freiberg	Germany
Samuel Thompson	COTVET, Ghana, Accra	Ghana
sandra barlet	gret, Nogent sur Marne	Finland
Sarah Aikin-Ayre	Algonquin College, Ottawa	Canada
Sarah Richards	SMART Technologies, Calgary	Canada
Shasta Zafra		Mexico
Sivadharani		India
Smith	CoE, Riyadh	Saudi Arabia
Solange Ríos	Fundacion Paraguaya, Asuncion	Paraguay
Sreenivasa Sanakam	Louisiana Tech , Ruston	United States of America
Stefano Merante	VIS - Volontariato Internazionale per lo Sviluppo	Madagascar
Taimoor Tariq	Islamabad	Pakistan
Tarana Mammadova	Accreditation and Nostrification Office of the Ministry of Education of Azerbaij, Baku	Azerbaijan
Tawfiq Algargoush	ASAS Training Center, Dammam	Saudi Arabia
Thierry Foubert	BTC, Kampala	Uganda
Touhidul Islam	British Engineering College, Sylhet	Bangladesh
Tricia Gilkes	Ministry of Education, Port of Spain	Trinidad and Tobago
Ugwuoke Cajethan Uche	University of Nigeria, Nsukka, Nsukka	Nigeria
Uju Offia	Uuniversity of Nigeria, Nsukka, Enugu	Nigeria
umar Mohammed Ahmad	university of Nigeria Nsukka, Enugu	Nigeria
umesh kumar mandal	NIST,BERHAMPUR ODISHA, BERHAMPUR	India
Uzoma Aningene		Nigeria
Valentina Chanina	EfVET, Brussels	Belgium
van den Bosch	Woord en Daad, Gorinchem	Netherlands
vanduhe vandu apagu	Moddibo Adama University of technology, Yola,Nigeria	Nigeria
Verónica Analía Luppi	Colegio Nº1 Domingo Faustino Sarmiento, Paraná	Argentina
Vethanathan Thanushan	BCAS Jaffna Campus, Vavuniya	Sri Lanka
VIFANSI TIAZOH	Technical High School Nkolbisson, YAOUNDE	Cameroon

Name	Institution	Country
Vinay Swarup Mehrotra	PSS Central Institute of Vocational Education, NCERT, Bhopal	India
Wayne Wheeler	American Association of Community Colleges, Washington	United States of America
Wouter de Regt	UNESCO-UNEVOC, Bonn	Germany
Yair Martínez Tejada	Intelnet, ilo	Peru
Zahra Gohar	Sardar Bahadur Khan Women's university Quetta, Balochistan, Quetta	Pakistan
Ziad Khan	Peace University, USA, Washington DC	United States of America

About the Moderator

Christine Uhder is Project Manager at the French NGO GRET, and specializes in vocational training, professional integration and business development services to SMEs. Christine has 9 years-experience as an international consultant and project manager in Sub-Saharan Africa and South-East Asia regions. Through her work, she ensures the design, implementation and monitoring of large scale development projects and conducts research on the topic of financing TVET in Sub-Saharan Africa, South-East Asia and Latin America, with the aim to analyse and compare strategies implemented to ensure a cost-efficient use of resources, mobilize the private sector in funding TVET, and design financing systems that support lifelong learning and sustainable societies.

UNESCO-UNEVOC International Centre for
Technical and Vocational Education and Training
UN Campus
Platz der Vereinten Nationen 1
53113 Bonn
Germany
Tel: [+49] 228 815 0100
Fax: [+49] 228 815 0199
www.unevoc.unesco.org
unevoc@unesco.org