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# SHANGHAI UPDATE

Special edition



## From Shanghai to Tangshan — the vital role of TVET

Five years ago, when delegates came to Shanghai for the Third International Congress on TVET, countries were facing challenges about how to achieve social and economic development in the aftermath of the financial crisis. Some were experiencing political unrest. Youth unemployment was one of the root causes of this and the need for TVET systems that could deliver good quality and relevant skills development was climbing high on the political agenda.

Today much has changed for the better as we gather in Tangshan for the International Conference Skills on the move: Global trends, local resonances, an event which some are calling Shanghai+5.



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We have a new agenda for sustainable development with a specific goal on education and targets on TVET and lifelong learning. Member States around the world have been moving forward with transforming their TVET systems, many inspired by the consensus that emerged from Shanghai back in 2012. UNESCO has revised its Recommendation on TVET and has launched a brand new strategy on TVET.

But other challenges remain and new ones have appeared. One such is the debate on green and digital skills and what needs doing to green and digitize TVET systems, something which is likely to be a hot topic at Shanghai+5.

The international community has learnt from the past and moved on from the narrower approach on access of the EFA set of goals set in 2000. So this time around we are talking about quality and outcomes and about adopting a holistic, lifelong learning approach as the only way to improve the education system as a whole.

But TVET is not just important in terms of the dedicated Sustainable Development Goal on education, it has a role to play in helping to achieve other goals too. If we want to improve people's health, we need doctors and nurses, but we also need technicians to work in the laboratories and community health workers and for that we need vocational skills. If we want to give more people access to a clean water supply, we need people with the technical skills for maintenance and repair to address this challenge. Whenever you are aiming to boost social and economic development to improve people's lives, you ultimately rely on the vocational skills of the technicians to put ideas into practice. This cannot be achieved without TVET.

UNESCO strives to keep the international community informed about how the organization is following up on its commitments to help transform TVET. Shanghai Update, published on a regular basis since June 2013 is one part of this effort. On the occasion of the Shanghai+5 conference, we have produced this special 24-page edition of the newsletter as one of our contributions to the debate over the coming days. It reviews progress on each of the seven recommendations on TVET enshrined in the Shanghai Consensus.

We hope you will find it of use.

### **Qian Tang**

Assistant Director-General for Education  
UNESCO

# International cooperation as the key to developing TVET

Significant progress has been made around the world in developing technical and vocational education and training since the Third International Congress on TVET was held in Shanghai in 2012. The recent developments in China exemplify this.

Today there are nearly 13,000 TVET institutions in China, offering over 100,000 courses covering all sectors of the economy. The number of students enrolled in TVET is increasing; currently there are about 10 million students enrolled in TVET courses across the country.

There are a number of reasons for this success. One is that there is equal access to TVET programmes. To give everybody the same opportunity however requires overcoming a number of obstacles, including financial. TVET students in China go to school tuition-free, and nearly half of the students receive financial support when attending secondary level programmes, and about one-third receives help to finance their tertiary vocational education.

While ensuring access is very important, it is also crucial to focus on providing quality education and training. Industry and businesses play an important role in realizing this.

Another important reason for the recent successes of the TVET system in China is international cooperation. China wants to play a leading role in the follow-up of the recommendations set by Shanghai Consensus, and the sharing of experiences with our international partners is an important aspect of this endeavour.

To continue to develop TVET in China we are encouraging TVET schools to share their experiences with others around the world, but also learn from what has been done in other countries. Moreover, we promote the collaboration between government and private partners, as well as the further collaboration between industry and schools.

Five years after the Third International Congress on TVET we welcome all stakeholders back to China and hope that we can jointly review the progress since 2012 and identify possible challenges that may lie in our way to implement the Shanghai Consensus. We hope that these coming days will act as a catalyst and reinforce our joint work together to continue to support skills development for all, especially the youth, and to strengthen international cooperation.

China welcomes you!

## **Jiping Wang**

Director General

Department of Vocational and Adult Education

Ministry of Education, China



# Recipes for keeping TVET relevant and attractive

Time and time again TVET policymakers, practitioners and assorted experts have to grapple with the twin problems of how to make TVET an attractive career path for young people and how to involve social partners in defining and organizing the provision of training.

Examining the German dual model may suggest some ways of tackling the related issues of TVET relevance and attractiveness.

The following figures give an idea of how it performs; over 60% of school leavers enrol in TVET, 70% of apprentices go directly to a good job on graduation, youth unemployment in Germany is close to 5%. The reasons for this success are several.

The system offers a wide range of qualifications — there are currently 330 officially recognized training occupations — ranging from bricklaying to others optician, banker or IT specialist, which in many countries are the province of higher education. It is permeable as people with good enough TVET qualifications can go to university. Indeed studies have shown that around 28% of our apprentices have the credentials to go to higher education but choose TVET instead.

Achieving parity of esteem is also important — a Meister or professional master's qualification is comparable to a university bachelor's degree and the national qualifications framework backs this up.

Social partners have a systematic role and, when it comes to employers, they are not only the bigger companies. Currently 80% of companies who offer apprenticeships are SMEs. The authorities lighten the load by ensuring schools take care of arrangements, including admin, allowing the SME to focus on training.

The dual system is of course facing many challenges, and Germany's Federal Ministry of Education and Research is working to futureproof it by addressing some of them, for example catering for new arrivals — 50% of the 1.4 million refugees who arrived in Germany since 2016 are below 25 — and keeping qualifications relevant in a fast-changing labour market.

Digitization and its impact on work and skills development is a major focus. The ministry has chosen 13 occupations likely to be most affected and is working with industry to explore the effect on qualifications. Mechatronics technicians working on the Volkswagen production line used to spend a lot of time repairing machines. Now those machines can repair themselves. Thus future jobs will involve much more programming and training will need to combine vocational and academic approaches. The same will be true for farmers in a context where the growing use of technology means farms are becoming more akin to factories.

Cooperating with our peers abroad remains a priority for German TVET. As someone involved in helping set up UNESCO-UNEVOC in Bonn, I am keen for vocational training to remain an important pillar in the work of UNESCO and other international organizations. Germany acted as a behind-the-scenes co-initiator of the Tangshan conference and we see this event as a useful occasion to take stock of how far we have come in transforming TVET and what opportunities lie ahead.

## **Peter Thiele**

Head of TVET Policy

Federal Ministry of Education and Research, Germany



# TVET at the centre stage of the new sustainable development agenda

The [Sustainable Development Goals](#) or SDGs are a set of 17 goals, accompanied by targets and indicators, which aim to make the world a better place over the next 15 years. Agreed under the umbrella name of the 2030 Agenda at a special summit of the United Nations in New York, US in September 2015, they are important because all UN member states are expected to use them to shape their political agendas and policies during this period.

The SDGs are successors to the Millennium Development Goals or MDGs, the first attempt at a universal set of goals, agreed by governments in 2000. They aim to build on the achievements of the MDGs however there are significant differences.

While the MDGs were sometimes criticised for being too narrow, the 2030 Agenda is universal — for developing and developed countries alike — and takes a far more holistic, joined-up view of the world's most pressing problems than the previous international development agenda.

Another big difference is the pride of place given to education, with TVET in particular moving from the sidelines to take centre stage. SDG 4 aims “to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”. It is accompanied by a set of targets, three of which, on access, outcomes and equality, directly involve TVET.

But this is not all. TVET will also be important for achieving other SDGs, especially SDG 8 on inclusive and sustainable economic growth, full employment and decent work. Other areas where TVET can make a contribution include climate, health, gender equality and youth.



The international education community has come up with a specific roadmap to guide their efforts and those of governments and other interested parties to achieve the SDG on education. Agreed in Paris in November 2015, the [Education 2030 Framework for Action](#) not only aims to mobilize people and organisations, it also provides a set of indicative strategies or different practices which countries can adapt and use to achieve their targets.

# Timeline

The United Nations Conference on Sustainable Development took place in Rio de Janeiro, Brazil from 20-22 June 2012 to discuss the process to develop the Sustainable Development Goals (SDGs). It initiated the consultations and discussions regarding the post-2015 education agenda.

UNESCO joined the rest of the world in celebrating the first World Youth Skills Day on 15 July, 2015. Since then UNESCO has organized events to mark the day and discuss the role of TVET in developing skills for future needs.

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**3-5 August 2015**  
**Asia-Pacific Conference on Education and Training**

Held in Kuala Lumpur, Malaysia, the Conference stimulated policy debate and dialogue on a number of topics including ICT in TVET, partnerships and greening TVET.

On Friday 25 September 2015, the United Nations Sustainable Development Summit adopted the SDGs. The SDGs include 17 goals, including SDG 4 on Education. SDG 4 calls on Member States to “ensure inclusive and quality education for all and promote lifelong learning.”

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**14-16 October 2014**  
**Global Forum on Skills for Work and Life post-2015**

About 200 delegates from 71 countries met in Bonn, Germany to discuss the role of TVET in addressing the major global challenges facing the post-2015 development agenda.

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**14 May 2014**  
**Global Education for All Meeting**

The Meeting, held in Oman, convened UNESCO Member States, regional organizations and agencies, and other actors and established a shared vision for the education post-2015 agenda.



**10-12 November 2014**  
**World Conference on Education for Sustainable Development**

Some 1000 participants met in Nagoya, Japan, to mark the end of the UN Decade of ESD, and launch the Global Action Programme (GAP) on ESD.



**19-22 May 2015**  
**World Education Forum 2015**

Held in Incheon, Republic of Korea, UNESCO led the way to build a new education agenda. The Incheon Declaration calls for inclusive and equitable quality education and promote lifelong learning opportunities for all.



**15 July 2016**  
**Launch of UNESCO Strategy for TVET**

Over 140 TVET stakeholders from over 35 countries met in Bonn, Germany, to discuss the role of youth skills development in transitions to sustainable economies and societies.

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The Recommendation concerning TVET was signed by UNESCO's Director-General and the President of the General Conference on 4 April, 2016. The Recommendation reflects new educational, social, economic, cultural and political trends and was adopted by Member States at the 38th session of the General Conference.

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# The transformation of TVET began in Shanghai

The Third International Congress on TVET, held five years ago in May 2012 in Shanghai, China, was significant in many ways – not least due to the impressive international consensus it managed to build over three days of intense debate. But perhaps its biggest legacy will be that it marked the turning point when the process of rethinking the fundamental purpose of TVET began.

Rather than simply responding to immediate needs for skills, TVET must deliver learning for the many and varied needs of human development, Borhene Chakroun, Chief of UNESCO's Youth, Literacy and Skills Development Section, wrote in the first edition of Shanghai Update. "Once you accept this basic tenet, it is clear that it is no longer enough to merely concentrate on expanding existing TVET provision – it goes much deeper than that," he said, "it is all about transforming TVET for inclusive societies and sustainable development."

Over three days comprising plenaries, parallel sessions roundtables and other forums for discussion, the 700-plus delegates from more than 100 countries present in Shanghai discussed ways of making this transformation happen and what form it should take. They agreed that deep changes are needed to the status quo in terms of the governance, funding and organisation of TVET. These changes need to take place in an integrated rather than a piecemeal fashion using policies and practices which can provide an effective response to the many social and economic challenges we face.

According to the Shanghai delegates, the role and nature of TVET needs to be rethought if it is to live up to its potential for contributing to sustainable development and inclusive societies. This means a shift in focus from short- to longer-term development needs and from contributing mainly to economic growth to a greater concern for social equity and environmental sustainability.

The Shanghai Consensus encapsulates the recommendations of the Third International Congress on TVET. Produced at the end of the event, the six-page document commented on ways of building a better understanding of the contribution of TVET to sustainable development. It suggested strategic directions for cooperation among countries and with the international community to support TVET for all. Finally it listed the various ways that UNESCO could facilitate the shared work of transforming TVET in the coming years.

**"it is all about transforming TVET  
for inclusive societies  
and sustainable development"**



# The Shanghai Consensus at a glance

Governments and other TVET stakeholders in UNESCO's member states were asked to consider implementing the following actions:



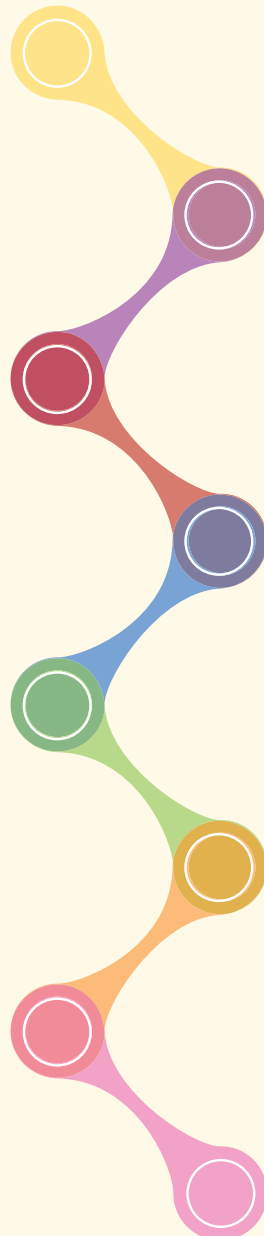
**Expanding access and improving quality and equity**



**Improving the evidence base**



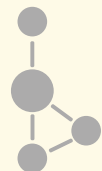
**Advocating for TVET**



**Enhancing relevance of TVET**



**Adapting qualifications and developing pathways**



**Strengthening governance and expanding partnerships**



**Increasing investment in TVET and diversifying financing**

As part of UNESCO's contribution to the debate, we have asked seven leading authorities on TVET to reflect on how far we have come with each of these seven recommendations. The following texts describe some major achievements, pick out some of the challenges that remain and identify some of the trends in each of these seven areas.

# Enhancing the relevance of TVET



With input from **Olga Strietska-Ilina**, Specialist in Skills Policies and Systems, ILO

Enhancing the relevance of training to the changing needs of the labour market to make it responsive to the needs of individuals and employers is a key challenge for TVET and skills development. This is particularly important in an era characterised by rapid economic and technological changes and a transition into sustainable development. Understanding the changing requirements and priorities of the labour market and developing forward-looking approaches to skills needs should be at the heart of strategic policy mechanisms, with skills development planning integrated in the creation of investment, trade, environmental, fiscal, employment and other national strategies and industrial policies. Organisations such as the ILO have identified anticipation of future skills needs as a key preventive measure to avoid skills mismatch, and as the first building block in a strong training and skills development system.

The recent ILO work on mismatch between jobs and skills and related discussion at the international conference has highlighted the limitations of the current understanding of skills mismatch and attempted to at least partially demystify it. One of interim conclusions of this work shows the mismatch between policies and evidence: instead of blaming unemployment on the allegedly poor supply of skills, governments and social partners need to think jointly how to stimulate growth of quality job opportunities, and how to attract and retain talent. Skills mismatch is not a phenomenon which is neutral to the context. Evidence suggests that for instance overqualification among young workers in low- and middle-income countries tends to be associated with low wages, poor working conditions and high levels of informality and job insecurity, and results in the overall job dissatisfaction among workers. It will be important to improve the quality of jobs in vocational trades while improving access to, coverage and relevance of TVET.

A number of tools exist to support governments and social partners in building and improving their systems of skills anticipation and matching, such as graduate tracer studies and employer surveys. These tools help to improve the systems of labour market information to assess, anticipate and match skills and jobs, although many countries still face challenges in implementing them, such as lack of financial resources, shortage of staff with relevant knowledge and expertise and weak coordination mechanisms between different government departments and agencies and the private sector.

To improve the relevance of skills training, greater emphasis must be given to involving a wider range of partners, including the private sector, civil society and the learners themselves, in the planning, design and assessment of TVET programmes. Governments will also need to build more effective partnerships with the private sector to support TVET financing and to increase learners' opportunities for workplace training, mentoring support and jobs. A better alignment between education and training and the world of work cannot be achieved without an efficient system of governance and institutional mechanisms with adequate institutional capacity to assess and anticipate current and future skill needs. This labour market intelligence needs to be translated into policies and practical implementation. The ILO and its partner agencies, OECD, Cedefop and ETF have implemented a survey among stakeholders (ministries of labour and education, employers' confederations and trade unions) to understand the level of involvement of key stakeholders and good practices as well as barriers of current systems. The survey in over sixty countries has demonstrated that building the coordinated effort with relevant capacity, good data provision and useful instruments is a challenging task which would require significant support and funding.

It is important to consider that not all groups are affected by the current changes to the same degree, and it is our job to help countries to develop training and active labour market policy measures targeting low-skilled people, young workers, women, migrant workers, people with disabilities, women and older workers. Such measures should include increasing the share of the on-the-job training content in the training provision, broadening access to training, integrating core employability skills in the TVET delivery recognising and making use of available skills of workers. The pace of change would require more flexible approaches in the supply of future talent and a shortened timeframe for the design of competency standards, curricula and the training provision itself. It is a huge challenge which requires a good deal of innovative and out of box thinking.

# Expanding access and improving quality and equity



With input from **Manos Antoninis**, Senior Policy Analyst, Global Education Monitoring Report Team, UNESCO

Since 2012, the recommendations of the Shanghai Consensus have been mainstreamed into the global education and development agenda through the new Sustainable Development Goal (SDG) 4, which focuses on inclusive and equitable quality education for all.

The TVET dimension of the agenda is split into two targets. The input- and output-oriented target 4.3 aims to achieve equal access for all women and men to affordable and quality technical and vocational education. The outcome-oriented target 4.4 focuses on equipping youth and adults with technical and vocational skills for employment, decent jobs and entrepreneurship. Literacy and numeracy, key work-related skills for youth and adults, feature in a separate target, 4.6.

In line with the 2030 Agenda's overall aim of leaving no one behind, target 4.5 captures the equity dimension in education. It aims to eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities and indigenous peoples. This requires the aims relating to SDG 8 on employment to be achieved too, as equal access to vocational training requires inclusive working environments that provide such opportunities.

These formulations draw attention to affordability as a necessary ingredient for equality of access. However, "affordability" is ill-defined and not accompanied by an indicator that could focus the attention of policy makers. The 2016 Global Education Monitoring Report argues that the extreme diversity of providers, cost structures, public policies and national contexts makes it unlikely that a single indicator can describe the affordability of a TVET system. One approach would be to contrast the amount of institution income covered by students with the amount of financial support the government provides to students.

The lack of a robust monitoring framework and agreed operational definitions of formal versus non-formal, and institution-based versus work-based education and training, make it hard to gauge the extent of inequalities. Often the better educated are more likely to benefit from continuing learning so education and training systems

may exacerbate initial inequalities. Gender disparities tend to be at the expense of women but these are also linked to employment patterns and reverse gaps exist in some parts of the world such as Europe. Finally our monitoring tools give only snapshots of the current situation and do not follow the trajectory of individuals over time.

Having said that, since 2012 the world has witnessed the emergence of new cross-national tools to monitor skills. These include the OECD Programme for the International Assessment of Adult Competences (PIAAC) and the World Bank Skills Towards Employment and Productivity (STEP) Skills Measurement Program, which shed light on inequalities both in access to opportunities and to skills acquisition.

While these surveys focus mainly on foundational skills, they have made attempts to assess other skills, such as problem solving, mentioned in the Shanghai Consensus, or ICT skills, the focus of the global indicator. But there is no consensus yet on which skills are needed to give people access to decent jobs and what would constitute progress in that direction. Many interventions to improve the content of education, a key dimension of quality, such as programmes focusing on entrepreneurship, are still not sufficiently based on evidence of what works.

However, the international community has made progress on defining what constitutes quality in TVET. Since 2012, new resources are revealing how quality is not just a question of outcomes but also settings and systems. The World Bank Systems Approach for Better Education Results (SABER) has defined nine policy goals against which it has evaluated 25 countries. The OECD Skills Beyond School project has looked at post-secondary provision in over 20 countries. The ETF Torino Process covers North Africa, Western Asia, Central Asia and the Caucasus in depth. CEDEFOP addresses issues in the European Union and accession countries. SEAMEO established the South-east Asia TVET Consortium in 2015. UNESCO has helped over 20 countries review and develop TVET policies, while the UNESCO-UNEVOC World TVET database provides information on the TVET system of more than 80 countries.

All this points to a growing interest in specifying standards and a drive towards their harmonization in the context of unrelenting globalization, a process succinctly captured in UNESCO report *Unleashing the Potential*. Quality assurance systems are increasingly based around qualification frameworks, improved accreditation procedures, upskilling of trainers and educators and

closer monitoring of government and non-government providers.

These initiatives refine our understanding of what constitutes equitable access and quality delivery of TVET and bring the world closer to the spirit of the second recommendation of the Shanghai Consensus.

## Adapting qualifications and developing pathways



With input from **Joe Samuels**, Chief Executive Officer, South African Qualifications Authority

TVET has the potential to enhance people's lives and the socio-economic development of countries, as a destination after basic education and as a stepping stone to higher education or the world of work. But qualifications cannot be dead ends — they need to be part of learning or qualifications pathways.

These pathways are important not just for TVET but for the entire education and training system. They benefit individuals by allowing them to progress vertically or horizontally through the system. They can also avoid duplication of effort, especially in environments with scarce resources. So what progress has been made since Shanghai?

The development of qualifications frameworks (QFs) worldwide — the key mechanism for creating systemic qualification pathways— is clearly the first milestone. Almost two-thirds of countries have sectoral or national QFs in 2017 and there has been a shift from an internally to an externally-driven focus. Communication between NQF entities has improved with the recognition of credentials playing an ever increasing role. Clear legal mandates, active and committed involvement of stakeholders and visibility to end-users contributes to the sustainability of QFs such as the European Qualifications Framework. Emphasis have been placed on quality assurance of qualifications mechanisms as in the Asia-Pacific region. Newer developments point towards the refining of regional and global conventions, such as the Addis Convention or the one planned on higher education, that see QFs as an integral part of the global landscape.

A second milestone is the steady increase in the use of QF level descriptors and learning outcomes (e.g. Southern African Development Community. Learning outcomes should not be formulated in narrow ways

which could limit lifelong learning. Research is needed to deepen the conceptualization of skills so that they are not only confined to productive skills, but also address other areas of human capabilities. National coordination and funding of recognition of prior learning and strengthening learning pathways and articulation in general are increasingly important when it comes to implementing QFs.

A third milestone is that QFs have reached the point where consideration should be given to assessing their impact, including how they trigger changes in labour markets, education and training sectors, economies and society in general. Another reason for assessing impact is that their ability to deliver benefits is being questioned. South Africa and the EU are currently evaluating impact. At a global level QFs should be more closely aligned to the sustainable development agenda.

A fourth milestone is the establishment of verification networks globally and on the African continent to combat misrepresentation and fraud. Building trust in education and training provision is crucial to allow for the movement of qualified persons. This is why quality assurance mechanisms are a key feature of QFs. Evaluating (foreign) qualifications has been taken up on the African continent as well as in the EU through various networks such as ENIC, ENARIC Networks and the African Qualifications Verification Network.

Finally, a major challenge facing the sector is how to build connections between TVET Colleges and Higher Education Institutions (HEIs), between technical and traditional universities and between HEIs or TVET Colleges and the workplace. A recent study found that in public HEIs and TVET Colleges there is relatively high awareness of the need for joined-up qualifications and the laws and steering mechanisms to support QFs.

There was less understanding of the need for institutions to be flexible in supporting learners as they follow their individual pathways. All three areas must be addressed but support to learners needs much more attention.

To conclude, good progress has been made on adapting qualifications and qualification pathways since Shanghai, but the challenge of really making this work remains.

## Improving the evidence base



With input from **Simon Ellis**, international research consultant

The Shanghai Consensus of 2012 prefigured TVET in the SDGs through its references to sustainable development, skills, relevance and partnership. It emphasized improved standards, increased statistical capacity, expanded research and addressing differences between national and international measures. Just before the Shanghai meeting the Inter Agency Group on TVET Indicators published its list of international indicators, while a year later Indicators for Employment and Productivity was issued for the G20. These international initiatives brought a sharper focus to evidence-based policy during the finalisation of the SDGs. Discussion of the issues can best be addressed by type of data.

### Skills data

SDG Target 4.4 emphasises 'relevant skills, including technical and vocational skills'. OECD's PISA and PIAAC surveys lead international skills assessment, but the World Bank's STEP programme has been a major advance for TVET by applying the assessment of employers and employees in the EU's AES and CVTS surveys more widely. The SDG epoch will include many new initiatives that seek to address the conundrum of the complex and detailed measures needed to assess skills as well as the high cost of such testing.

Employers often express disappointment at the level of skills provided by formal education and yet they are often not able to be precise about the skills they need. Nevertheless employers create jobs and so must be involved in assessing skills needs to keep ahead of the market. But producing workers with new skills requires time to revise curricula and for students to complete their studies. Some form of skills forecasting is thus inevitable. As labour markets evolve a simple projection of current trends in occupation will not be enough to maintain skills competitiveness.

### Administrative data

Administrative data on student enrolment (by sex, age, and qualification) are needed to manage training

programmes. They are the foundation of education statistics, including the international data collected by UNESCO Institute for Statistics, but can be incompatible with TVET courses that may be irregular in duration and involve students of different age groups. Assessing what counts as successful TVET can be a problem. A student may obtain promotion simply by registering for the course, or they may leave early to start the job they were training for. Early leavers are thus not necessarily failures. Perhaps the best TVET indicator is a graduation rate; even if students get jobs early they should finish their studies.

### Labour market indicators

Countries usually monitor TVET through labour market indicators, especially the Labour Force Survey (LFS) which asks the highest level of education completed (education attainment) and whether the respondent has recently taken part in education or training (participation). The question on participation is vital for SDG 8.6, which calls for a reduction in numbers of young people Not in Employment Education or Training, and for SDG 4.3, which covers equal access to TVET by different disadvantaged groups.

LFS collect information on occupation that is used together with sector and education attainment to suggest whether there is a skills mismatch between education and job. Few countries collect data on second occupations and fewer still publish such data. By 2030 data on second or even third occupations will be crucial in identifying skills needs. It is already more important to have a good portfolio of competences than to concentrate on a single career path.

This brief note, on measuring TVET since the Shanghai Consensus and challenges under the SDGs, suggests that direct skill measures and a more subtle classification of working conditions are likely to be prime considerations for measuring TVET and what constitutes success in 2030.

# Strengthening governance and expanding partnerships



With input from **Muriel Dunbar**, Senior Skills Adviser, Cambridge Education

Governance of TVET, and the role of social partners in it, is challenging for policymakers. Often responsibilities are shared between ministries, agencies and non-government bodies and funding is a low priority after general and higher education. Nevertheless, authorities have an obligation to oversee: policy development; planning management & delivery, monitoring and evaluation, finance, quality assurance, standard setting, curriculum development and assessment. They can be facilitated or hampered by the level of commitment of senior leaders, their clarity of vision, capacity and capability, and the resources and information available.

While partnerships are critical for TVET governance, private sector involvement generally needs facilitating by another party, whether it be government, donor or NGO. Employers are more likely to engage if the benefits of doing so are apparent, the business environment is favourable and bureaucracy is minimal.

The importance of the governance of TVET and its potential for partnerships has been increasingly recognised by governments and international agencies over the last decade. This can be attributed to a combination of four events.

1. The adoption in September 2015 of the UN's 2030 Agenda for Sustainable Development. The agenda advances the idea that multi-stakeholder, cross-sectoral partnerships can enhance the effectiveness and impact of the 17 sustainable development goals. Such partnerships are complex to manage and are particularly suited to those thematic areas which are well-connected with each other, such as gender, education and health; better-educated women are more likely to gain paid employment and receive better healthcare and nutrition; healthy girls are more likely to remain in school and progress into stable employment.
2. The advent of the European Qualifications Framework from 2006 onwards. This set in motion reforms of TVET in European countries which are now being adopted around the globe. Competence-based training programmes are being developed, derived from industry-based, occupational standards. Governments have had to consider where responsibility should lie, how it should be carried out

and how the private sector can be encouraged to participate in, and bear some of the responsibility for programme design, delivery and funding. As a result, countries adopting qualifications frameworks have established national authorities, often in partnership with the private sector, to design and manage the framework, approve the inclusion of qualifications and the pathways between them and assure quality.

3. Further impetus was given to TVET governance reform by the Third International Congress on TVET held in Shanghai in 2012, which appealed to governments to involve representatives of enterprises, workers, learners and civil society in their planning.
4. 'Shock' events such as the global economic crisis of 2007-2008 have been strong catalysts for change in TVET governance. The resulting high unemployment, especially youth unemployment, made policymakers focus on equipping learners and workers to be resilient to labour market changes and providing the skilled labour needed for economic growth.

Governance of TVET varies. In some countries, it is the responsibility of a single ministry or agency, as in Jamaica or the Philippines. More often, a range of ministries and agencies share responsibility for different sectors or aspects of TVET as in Bangladesh or South Korea. Whichever governance structure exists, responsible institutions need to have the authority, and control over funding, to carry out these functions. The role of each stakeholder must be clear, well-designed communication and co-ordination mechanisms are required, and TVET should be part of a coherent human resource development strategy.

# Advocating for TVET



With input from **Simon Bartley**, President, WorldSkills

Advocating TVET has never been more relevant or more complex. In an era of universal access to information there are seemingly limitless opportunities for TVET systems to promote the vocational sector and skills to a broader audience than ever before, including directly to young people. Yet, in the face of some of the seismic challenges the sector faces, the final recommendation of the Shanghai consensus is still for many an add-on, or an afterthought, rather than a central concern.

This is a grave mistake. There is an acute need for us all to speak out for TVET and skills in all our work all of the time. The message of ‘university good, vocational skills bad’ is pervasive and corrosive and, except for just a handful of countries, there is still no parity of esteem between vocational and academic education. At the same time, TVET systems have not kept up to speed with the changing demands of the economies they serve. This mismatch will only increase when the technological changes we are already seeing start to accelerate.

Last year global youth unemployment rates rose for the first time in three years — they were expected to reach 13.1% in 2016 according to International Labour Organization estimates. That is 71 million young people out of work. In some of the regions where WorldSkills is most active, such as the Middle East and North Africa, the proportion of young people out of work is much higher.

After decades of promoting a university education, governments are beginning to get the message. Take the UK, which in the early 2000s had a target that 50% of young people should attend university, and which is now pushing apprenticeships hard in its “Get In Go Far” campaign. The decision by the United Arab Emirates, with its relatively affluent native population, to host WorldSkills in Abu Dhabi in October 2017, was mainly motivated by their desire to raise the profile of skills and TVET amongst UAE nationals.

In Russia, which will host WorldSkills in August 2019, the entire vocational education system is being built using the WorldSkills Standards Specifications as the foundation. Accompanying this are aggressive national and regional marketing campaigns.

Speaking to young people in a language they understand, and using spokespeople who they relate to, remains a challenge for the middle-aged civil servants who run the sector. That is where skills competitions come in.

The sight of young people competing and excelling in their chosen skill is a catalyst for others to look into these careers themselves. This happens both at the competition — at booths manned by education providers, employers and careers agencies — as well as outside the event through coverage in the traditional media and, more significantly, on social media.

Skills competitions are one of the most effective ways to reach the audiences that are the most important to increase uptake of TVET — young people themselves and their influencers, parents and teachers — but they are only part of the solution.

Other ways to start to shift perceptions include careers guidance and marketing campaigns that can appeal both to young people and to those vital influencers.

However there is no one-size-fits-all campaign that works across the world. Advocating for TVET calls for local and national approaches that speak directly to the target groups.

At the same time, there must be a renewed focus on the kind of TVET we offer to ensure that it matches the needs of labour markets. This requires the very governments who have been championing higher education for decades to take the lead in making sure TVET is relevant, of a high quality, and is effectively advocated within each country.



# Increasing investment in TVET and diversifying funding

With input from **Halden Morris**, Professor of Career

Technical and Vocational Education & Training, University of the West Indies, Jamaica

With the increasing demand for skilled workers, businesses around the globe are showing renewed enthusiasm for TVET. Increasing investment and diversifying funding for TVET is, therefore, of major significance. Given its fundamental role in developing the workforce, TVET has an important role to play if nations are to achieve their developmental goals. But traditional sources of funding such as government funding and tax levies are not enough to sustain the TVET system so private sector funding is needed. The private sector could fund apprenticeship systems, brand and fund training facilities in public institutions, provide instructors, fund research and incubators as well as offering soft loan facilities for students as well as instructors.

There is increasing dialogue on how to fund TVET; this has been debated at conferences and on the UNESCO-UNEVOC TVeT-Forum. Conferences such as the series of International Conferences on TVET in the Caribbean hosted by the University of the West Indies (UWI) in Jamaica have strengthened the call for sustainable financing for TVET and given rise to several articles in academic journals. There are also signs that the private sector is increasingly aware of its role although its approach often focuses more on ways of reducing the cost than offers to increase the funding. CISCO, for example, has claimed that investing in simulators or online collaboration tools could reduce the need for expensive infrastructure. The company has also suggested that new financing models and cost-sharing arrangements such as using cloud-based services could reduce admin expenses. Industries are also looking for new ways of partnering which can give deeper collaboration and broaden or customize training.

A key document for the development of Caribbean TVET is the Montego Bay Declaration on TVET which emerged from the 2012 UWI/UNESCO Conference on TVET in the Caribbean. It called for better policies and diversified sources of funding to drive TVET and has inspired the development of TVET policies in Jamaica, Barbados, Trinidad and Tobago and further afield. This has also led to the formal establishment of TVET units for curriculum development in some countries.

A major element of the new TVET policies is a mechanism for diversifying funding which proposes a mix of sources such as government funds, grants and tuition fees. As well as its existing 3% tax levy on employers, Jamaica is engaging the private sector in a system of apprenticeships to facilitate the delivery of TVET. Other Caribbean countries have introduced lower levies.

Many developing nations find it hard to diversify the sources of funding for TVET interventions — building public-private partnerships for delivering TVET is seen as a promising way forward. UNESCO, the British Council, the Inter-American Development Bank, USAID and others are assisting developing countries in setting up apprenticeship schemes, an approach which has worked well in developed countries such as the USA, UK, Spain, Australia, Germany, Switzerland and Austria.

Many challenges remain. One is the need for more intensive public-private partnerships for financing TVET at all levels. The public and private sectors need to take joint ownership of TVET and remove the prevailing disconnect between TVET curriculum and the world of work. Establishing a participatory approach in curriculum development and implementation would help. The private sector could assist by facilitating apprenticeships and other such arrangements. Greater autonomy for TVET providers should be accompanied by better management of public TVET funds, including funding based on outcomes. Training should use models more in line with those used in the business world.

Additionally, there is an urgent need for both public private sectors to embrace TVET at the tertiary level to enhance the capacity of the system and produce leaders who will lead the field and create stability in TVET. This could include supporting TVET in tertiary institutions, especially universities, by financing chairs or providing infrastructure and equipment. Funding for research into TVET — a field which is currently underdeveloped — is another priority. Using the idea of providing value for money, possibly based on incorporating quality indicators in the TVET system, could also be useful.



# UNESCO launched new strategy and recommendation for TVET in 2016

2016 saw UNESCO put the final seal of approval on two key tools for guiding the transformation and expansion of TVET —the [Strategy for TVET \(2016–2021\)](#) and the [Recommendation concerning TVET](#). The first, which lays out the principles of UNESCO's work on TVET until 2021, is more for internal use. The second guides the efforts of decision makers, education practitioners, social partners and civil society in Member States as they seek to improve TVET systems to better serve their populations and is thus designed for a broader public. What both have in common is their emphasis on promoting employment, particularly decent work, on equity and access and on facilitating the shift to greener economies and societies.

So when UNESCO chose to launch its new TVET strategy on 15 July 2016 — the UN's official World Youth Skills Day — the timing was no accident. The strategy has plenty of implications for how young people go about developing the skills they need to make their way in the workplace and their lives.

The 2030 Agenda for Sustainable Development recognizes that the world's problems are inter-related and cannot be tackled in isolation. In close alignment with this way of thinking, UNESCO's new strategy recognizes that "TVET is expected to address multiple demands of an economic, social and environmental nature" and calls for an integrated approach to improving and transforming TVET.

The strategy has three priority areas. Fostering youth employment and entrepreneurship is the first. Not only can TVET equip young people with skills to find work, but it can improve people's ability to respond to changing demand for skills and increase productivity and earnings.

Second comes the need to promote equity and gender equality in a world where too many people, especially women, do not have access to skills development and decent work. As part of the new strategy, UNESCO aims to find the best policies for tackling this and other forms of inequality and support the efforts of Member States to put them into practice.

Third comes facilitating the transition to green economies and sustainable societies. While each country needs to decide on its own path to a sustainable model of development, climate change threatens the wellbeing of all. Shifting to a more sustainable model could generate employment by creating a demand for new skills and occupations. In the strategy, UNESCO is committed to developing practical tools for skills development which can help Member States achieve their goals in areas such as health, water, energy, agriculture and food security.



UNESCO's Recommendation concerning TVET, signed at UNESCO HQ by the UNESCO Director-General and the President of the General Conference in Paris on 4 April 2016, provides guidance on five important areas. These are policies and governance, quality and relevance, monitoring and evaluation, research and knowledge management and, finally, international co-operation. It calls for an integrated approach to education and training which can provide people with a broad spectrum of knowledge, skills and competences for work and for life and empower them to contribute to the transition towards sustainable development.

This new instrument will serve as a useful point of reference for people in Member States around the world. With its holistic approach to TVET reform, it is fully in line with Sustainable Development Goal 4, namely to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all".

The decision to revise the original recommendation followed a request from delegates at the Third International Conference on TVET who asked UNESCO to update the document to take into account developments in TVET over the past 15 years. world. With its holistic approach to TVET reform, it is fully in line with Sustainable Development Goal 4, namely to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all".

# The UNEVOC NETWORK in action

The UNEVOC Network aims to facilitate international and regional cooperation in TVET. Coordinated by the UNESCO-UNEVOC International Centre in Bonn, it has a global reach comprising more than 250 centres from 164 countries. The network serves to share promising practices and innovations in TVET and develop the capacities of UNEVOC Centres and TVET practitioners. It also enables UNEVOC Centres to participate in the policy development process.

UNEVOC Centres are housed in TVET institutions and serve as national focal points and a platform for wider cooperation in TVET. Member institutions typically include ministries of education, national bodies dedicated to TVET policy development, TVET teaching institutions and higher education and training institutions carrying out TVET research or teaching.

## Third International Congress on TVET 14–16 May 2012, Shanghai, People's Republic of China

The Shanghai Consensus, a six-page blueprint for how governments and other stakeholders could go about transforming TVET, was one of the many outputs of the congress. It contained two recommendations for the UNEVOC Network. The first was to gather and disseminate evidence on the many different ways of transforming and expanding TVET. The second was to boost the network's ability to help build the capacities of decision makers and practitioners and to facilitate the involvement of all relevant stakeholders.



## Meeting of Coordinators of UNEVOC Network Cluster Centres, 12–14 September 2012, Bonn, Germany



## Global Forum on Skills for Work and Life post-2015, 14–16 October 2014, Bonn, Germany

Building on the lessons learnt from the regional forums, more than 200 delegates from over 71 countries, including 80 from 62 UNEVOC Centres, met at the global forum in Bonn to discuss the role of TVET in addressing two major global challenges on the post-2015 development agenda — how to make young people more employable and how to achieve sustainable development. The need to take an integrated view of TVET for the world of work and for professional and personal development, as well as for addressing sustainable development issues, was a strong message from the floor. Delegates also called for renewed efforts to develop the capacity to predict which skills will be needed to aid the transition towards sustainable economies and societies.

## UNEVOC Regional Forums: Advancing TVET for youth employability and sustainable development

The UNEVOC Network replied to the Shanghai' Consensus's call for stronger knowledge sharing and capacity building. Five events held during the second half of 2013 brought UNEVOC Centres together with other representatives of the TVET community to collect and disseminate evidence-based policies. At regional forums in San José (Costa Rica), Seoul (Republic of Korea), Abuja (Nigeria), Moscow (Russian Federation) and Beirut (Lebanon), the TVET community searched for what works in TVET. This was just one part of the UNEVOC Network's response to the recommendations of the Shanghai Consensus, in particular the call for better sharing of knowledge and capacity-building.



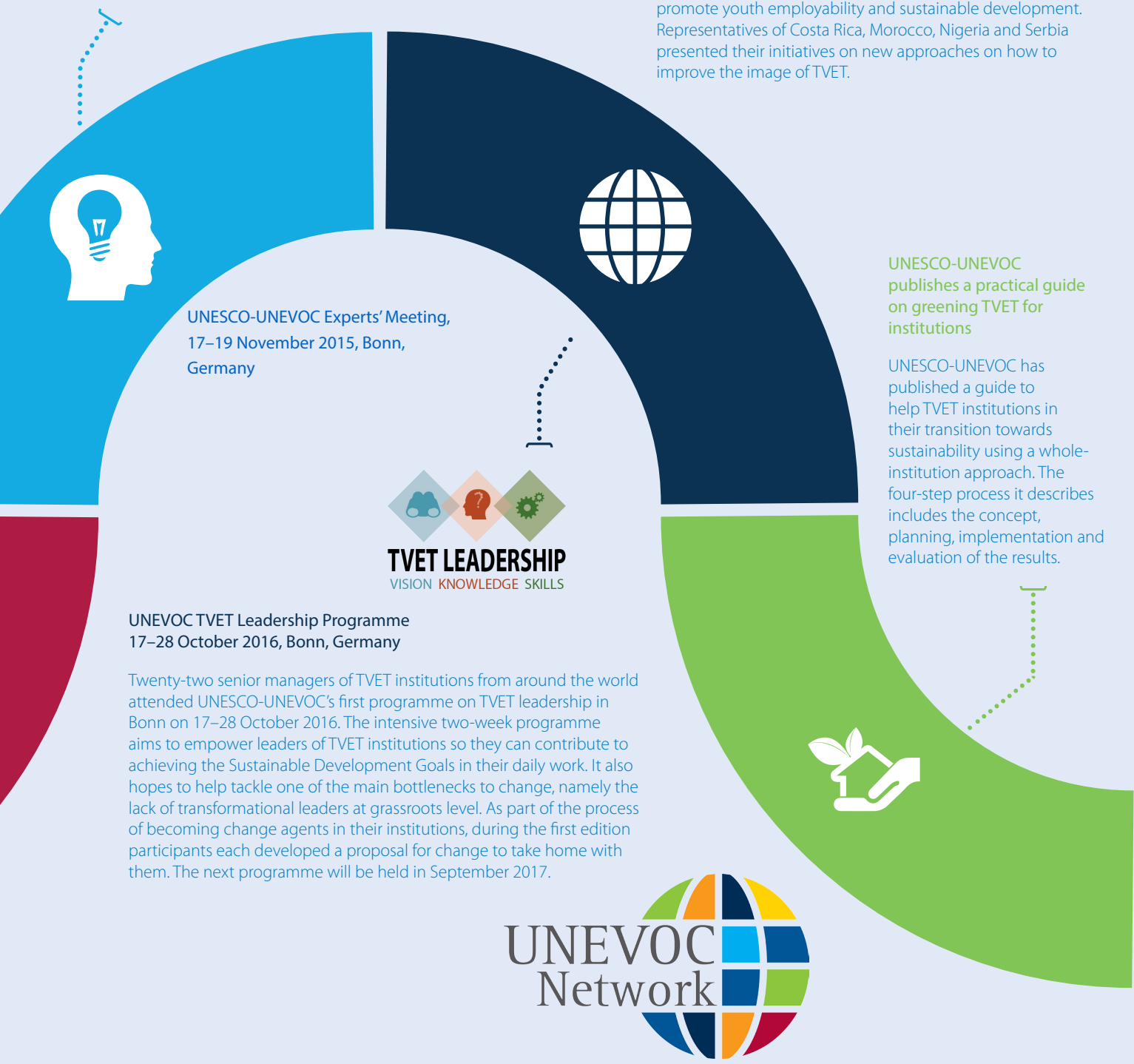


World Youth Skills Day  
15 July 2015, Bonn, Germany

2015 saw UNESCO-UNEVOC join in the first celebration of World Youth Skills Day when it hosted a special event at the UN Campus in Bonn including a panel discussion on the role of TVET in developing skills for future needs. The date, designated as such by the UN in 2014, aims to raise awareness of the need to invest in young people's skills. 2016 saw UNEVOC Centres in Bhutan, Niger, Nigeria, Mexico and Paraguay mount their own celebrations. Preparations for marking the day in 2017 are underway, including a call to young photographers to participate in UNEVOC's Skills-in-Action Photo Competition.

Launch of UNESCO Strategy for TVET (2016-2021)  
14–15 July 2016, Bonn, Germany

More than 140 TVET stakeholders from 35 countries came to Bonn in mid-July 2016 to witness the launch of the strategy that lays out the principles of UNESCO's work on TVET until 2021. The event, hosted by UNESCO-UNEVOC and held on the occasion of World Youth Skills Day, included a panel discussion on what governments are doing to transform TVET systems to promote youth employability and sustainable development. Representatives of Costa Rica, Morocco, Nigeria and Serbia presented their initiatives on new approaches on how to improve the image of TVET.



UNESCO-UNEVOC Experts' Meeting,  
17–19 November 2015, Bonn,  
Germany

UNESCO-UNEVOC  
publishes a practical guide  
on greening TVET for  
institutions

UNESCO-UNEVOC has  
published a guide to  
help TVET institutions in  
their transition towards  
sustainability using a whole-  
institution approach. The  
four-step process it describes  
includes the concept,  
planning, implementation and  
evaluation of the results.



UNEVOC TVET Leadership Programme  
17–28 October 2016, Bonn, Germany

Twenty-two senior managers of TVET institutions from around the world attended UNESCO-UNEVOC's first programme on TVET leadership in Bonn on 17–28 October 2016. The intensive two-week programme aims to empower leaders of TVET institutions so they can contribute to achieving the Sustainable Development Goals in their daily work. It also hopes to help tackle one of the main bottlenecks to change, namely the lack of transformational leaders at grassroots level. As part of the process of becoming change agents in their institutions, during the first edition participants each developed a proposal for change to take home with them. The next programme will be held in September 2017.



# Future considerations and actions

The texts above have showed how far we have come since 2012. However, they also reflect some of the challenges remaining to accomplish the recommendations set out in the Shanghai Consensus. The following are a few of future considerations and actions.

Today's world is characterized by, among others, increased globalization, changing labour markets, and digitalization. This has significant impacts on education systems and skills development. The 'one size fits all' form of education and training is no longer suitable for today's world and the digital economy will require a more flexible approach to skills development.

The effects of climate change will also have a significant impact on education and training systems, and will require the greening of TVET, including the development of skills for the future green economy markets such as in the renewable energy sector.

Digital technologies are also creating a wealth of new opportunities for TVET and skills development through the availability of new learning modalities. In addition, new forms of certification, such as digital credentials and open badges, are increasingly supporting the validation of learning outcomes through non-formal and informal learning and facilitating learners' and workers' mobility. While increased mobility is an outcome of globalization, it also results from crisis and armed conflicts. Ensuring access to learning and protecting the right to education of migrants and refugees also involves recognizing their skills and qualifications.

The right to education does not only mean the right to access quality TVET, but also includes the right to lifelong learning. In the coming years more attention will be paid to offering TVET to all ages. People with intermediate skills are losing jobs, which means that there is a focus on providing education, advice and guidance to help them transfer to new jobs. One way of achieving this, is establishing flexible learning pathways that allow the smooth transition of learners from TVET to general or higher education programmes, as well as those adult learners wishing to acquire new or upgrade their existing skills after a period in the labour market. Such flexible learning arrangements can also help to increase the attractiveness of TVET, as well as meet the growing demand for higher level skills and promote equality and social inclusion.

# Read more

ISSUE NO. 1  
JUNE 2013

## SHANGHAI UPDATE

Follow-up on the UNESCO Third International TVET Congress

One year on

One year on, the TVET Congress, which was held in Shanghai in June 2012, has left a lasting legacy. It has not only provided a platform for dialogue and exchange of views, but also laid the foundation for a series of activities and initiatives that will continue to shape the TVET landscape in the coming years.

1. One year on
2. It is time to transform TVET
3. UNESCO-UNEVOC process on TVET
4. Shanghai Consensus and a global vision
5. UNESCO Executive Board gives green light to recommendations
6. Spurring activities and events

Technical and Vocational Education and Training

ISSUE NO. 2  
MARCH 2014

## SHANGHAI UPDATE

Follow-up on the UNESCO Third International TVET Congress

Editorial

It is the second issue of the Shanghai Update, and it is a pleasure to see it published. This issue contains a wealth of information and insights into the progress made since the TVET Congress in Shanghai. It also provides a platform for dialogue and exchange of views on the challenges and opportunities facing the TVET sector.

1. Editorial
2. International organizations working together to improve TVET
3. The role of TVET in sustainable development
4. Defining the role of TVET in education and skills development
5. Regional focus on the TVET sector
6. UNESCO-UNEVOC process on TVET
7. Spurring activities and events
8. Recently published

Technical and Vocational Education and Training

ISSUE NO. 3  
MAY 2015

## SHANGHAI UPDATE

Follow-up on the UNESCO Third International TVET Congress

Editorial

Delivering on the Shanghai promises

It is a pleasure to see the Shanghai Update published in its third issue. This issue contains a wealth of information and insights into the progress made since the TVET Congress in Shanghai. It also provides a platform for dialogue and exchange of views on the challenges and opportunities facing the TVET sector.

Global forum takes message from Shanghai to Bonn

ITVET is to reach its full potential for transforming the lives of individuals and promoting healthy economies and societies, the challenge of youth employment and skills development is a global one. This is the message of the Global Forum on TVET, which was held in Bonn in October 2014.

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ISSUE NO. 4  
NOVEMBER 2015

## SHANGHAI UPDATE

Follow-up on the UNESCO Third International TVET Congress

TVET at the centre stage of the new sustainable development agenda

In late September 2015, a special session of the United Nations High Level Panel of Experts (HLPE) was held in New York to discuss the role of TVET in the new sustainable development agenda. The HLPE report, which was published in October 2015, highlights the importance of TVET in achieving the Sustainable Development Goals (SDGs).



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ISSUE NO. 5  
JULY 2016

## SHANGHAI UPDATE

Follow-up on the UNESCO Third International TVET Congress

Editorial

A new strategy for an interconnected world

UNESCO launches brand new strategy for TVET

UNESCO has launched a brand new strategy for TVET, which is designed to address the challenges and opportunities facing the TVET sector in an interconnected world. The strategy is based on the Shanghai Consensus and the UNESCO-UNEVOC process on TVET.

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ISSUE NO. 6  
DECEMBER 2016

## SHANGHAI UPDATE

Follow-up on the UNESCO Third International TVET Congress

Editorial

What UNESCO is doing for sustainable development

Putting UNESCO's 2016-2021 TVET strategy into practice

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For the past five years the Shanghai Update has informed stakeholders about the progress made by UNESCO to implement the key recommendations of the Third International Congress on TVET. The newsletter is published in English, French and Spanish biennially. More information: <http://www.unevoc.unesco.org/shanghai>



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Educational, Scientific and  
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## Stay in touch

### UNESCO

Section for Youth, Literacy  
and Skills Development  
7, place de Fontenoy  
75352 Paris 07 SP, France

 [infoTVET@unesco.org](mailto:infoTVET@unesco.org)

 [www.unesco.org/education](http://www.unesco.org/education)

 [www.facebook.com/unesco](http://www.facebook.com/unesco)

 @UNESCO

### UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training

UN Campus  
Platz der Vereinten Nationen 1  
53113 Bonn, Germany

 [unevoc@unesco.org](mailto:unevoc@unesco.org)

 [www.unevoc.unesco.org](http://www.unevoc.unesco.org)

 [www.facebook.com/unevoc](http://www.facebook.com/unevoc)

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