



United Nations
Educational, Scientific and
Cultural Organization

UNEVOC

International Centre
for Technical and Vocational
Education and Training



advancing innovation

UNESCO-UNEVOC in action

Biennial Report 2018-2019

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Preface



In a rapidly evolving world filled with societal, environmental and economic disruptions, technical and vocational education and training (TVET) systems need to develop innovative strategies to tackle emerging challenges while simultaneously seizing the opportunities that have arisen from the advent of 21st century technology.

Taking into account the pivotal role that innovation plays within the TVET ecosystem, UNESCO-UNEVOC has focused on developing and implementing initiatives that foster greater collaboration and promote innovation within the UNEVOC Network. The last biennium saw the implementation of two global projects: Bridging Innovation and Learning in TVET (BILT), and Skills for Innovation Hubs (i-hubs), which served to reinforce our core thematic priorities and empower TVET institutions within the UNEVOC Network to act as agents for innovation. These projects are key components of UNESCO-UNEVOC's mission to support Member States in transforming their TVET systems to ensure equal access to quality TVET on a global level.

Guided by the overarching vision of the UNESCO Strategy for TVET (2016–2021), UNESCO-UNEVOC released its second Medium-Term Strategy (MTS-II) in 2018. The strategy aimed to support TVET stakeholders in adapting their institutions to manage the changing expectations of TVET systems and effectively strengthen collaboration, knowledge exchange and learning across the UNEVOC Network. More importantly, it enabled UNESCO-UNEVOC to gear its programmatic and capacity development activities to better respond to stakeholders' needs.

Even as commitments at the policy level are being strengthened, UNESCO-UNEVOC recognizes that transformation is still dependent on people on the ground. In 2018, the first regional UNEVOC TVET Leadership Programme for Latin America was launched in Panama to address the specific contextual challenges faced by TVET leaders throughout the region. Within the span of a year, three additional regional UNEVOC TVET Leadership Programmes were organized in Francophone Africa, Asia and the Pacific, and the Caribbean.

During the last biennium, UNESCO-UNEVOC's work benefitted immensely from the strong support of the Government of the Federal Republic of Germany, particularly through the programmatic expertise and financial contributions provided by the Federal Ministry of Education and Research (BMBF) and the Federal Ministry for Economic Cooperation and Development (BMZ). Furthermore, strong collaboration with UNESCO Headquarters, and Field and Regional Offices, combined with the decisive leadership of the former Head of Office, Shyamal Majumdar, propelled UNESCO-UNEVOC on a growth trajectory in terms of programmatic engagements, human resources and financial sustainability.

As the newly appointed Director of UNESCO-UNEVOC (1 January 2020), I will strengthen our efforts to support Member States in their advancement of innovation in TVET and continue to facilitate dialogue on how to innovate our perspective on the future of TVET.

A handwritten signature in black ink, appearing to read 'Soo-Hyang Choi'.

Soo-Hyang Choi
Director, UNESCO-UNEVOC International Centre

Snapshot of Activities

This selection of activities from 2018-2019 highlights UNESCO-UNEVOC's global reach through its flagship programmes, workshop coordination and collaborative projects.



Global Forum on Advancing Learning and Innovation in TVET
2019

TVET Learning Forum on Managing Skills in a Time of Disruption
2018

Global UNEVOC TVET Leadership Programmes 2018 and 2019

Experts' Workshop on Gender Equality in STEM-related TVET

UNESCO-UNEVOC - Bonn, Germany

i-hubs Guided Self-Assessment Workshop
BKAL - Germany

BILT Workshop on Greening TVET

i-hubs Guided Self-Assessment Workshop

MCAST - Malta

BILT Workshop on Digitalization

i-hubs Guided Self-Assessment Workshop

OMNIA - Finland

National Forum on TVET Reform and Skills for Sustainable Development
Ulaanbaatar, Mongolia

YEM Regional Workshop on Digital and Entrepreneurial Skills
Beirut, Lebanon

UNEVOC-NSDC Workshop on Greening Curriculum and Job Profiles
New Delhi, India

East and Southeast Asian Network Cluster Meeting
Seoul, Republic of Korea

i-hubs Guided Self-Assessment Workshop
YABATECH - Nigeria

i-hubs Guided Self-Assessment Workshop
RVTTI - Kenya

National Workshop on Transforming TVET
Yangon, Myanmar

i-hubs Guided Self-Assessment Workshop
TESDA - Philippines

BILT Workshop on Entrepreneurship in TVET

i-hubs Guided Self-Assessment Workshop

Tknika - Basque Country, Spain

i-hubs Guided Self-Assessment Workshop
SIT - Seychelles

i-hubs Guided Self-Assessment Workshop
SZPT - China

YEM Regional Workshop on Work-based Learning
Rabat, Morocco

UNESCO-EU Skills and Technical Education Programme, Training of TVET Managers
Mponela, Malawi

UNEVOC TVET Leadership Programme for Asia and the Pacific
Bangkok, Thailand

UNEVOC TVET Leadership Programme for Africa
Dakar, Senegal

Overview of UNESCO- UNEVOC and its guiding frameworks

UNESCO-UNEVOC is UNESCO's specialized centre for technical and vocational education and training (TVET), and an integral component of UNESCO's international programme on TVET.



The UNESCO-UNEVOC International Centre supports UNESCO's Member States in strengthening and upgrading their TVET systems, and – through its capacity development programmes, workshops and global UNEVOC Network – advocates for quality TVET that is accessible to all. The International Centre's work takes place at the institutional, regional and international level in close collaboration with members of its UNEVOC Network.

Ensuring access
to quality skills
development for all
in an ever-changing
world

1. SDGs

UNESCO and UNESCO-UNEVOC's current TVET strategies are designed to contribute towards the achievement of the Sustainable Development Goals (SDGs), as laid out in the 2030 Agenda for Sustainable Development. The SDGs set out a holistic approach to human development – an approach for which education and training are integral, and within which TVET plays a central role. SDG 4 focuses on quality education and calls on Member States to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”.

2. UNESCO's Strategy for TVET (2016-2021)

UNESCO's Strategy for TVET (2016-2021) is aligned with the targets identified in SDG 4 and supports the efforts of Member States to enhance the relevance of their TVET systems: to equip all youth and adults with the skills required for employment, decent work, entrepreneurship and lifelong learning. It also proposes indicative strategies that countries may wish to draw upon in developing contextualized plans, taking into account different national realities, capacities and levels of development, and respecting national policies and priorities. UNESCO's Strategy for TVET has established a solid foundation for UNESCO-UNEVOC's progressive work in this sector.

3. UNESCO-UNEVOC's Medium-Term Strategy II (MTS-II)

UNESCO-UNEVOC's second Medium-Term Strategy (MTS-II) for the period 2018-2020 sets out the strategic direction for the International Centre to contribute to improving TVET systems at the national level through institutional transformation, capacity building and international cooperation. MTS-II focuses on the three thematic priorities identified in UNESCO's Strategy for TVET and aims to deliver through four programmatic interventions:



Quality TVET
effectively
contributing
to equitable
and
sustainable
development,
globally

4. UNESCO's Comprehensive Partnership Strategy

UNESCO relies on a broad and diverse set of collaborative relationships and partnerships to pursue its mission and implement its programmes. The purpose of its Comprehensive Partnership Strategy is to establish a clear framework for leveraging partnership to enhance the impact and visibility of UNESCO's programmes and to ensure that partnerships contribute to optimal results for the achievement of the SDGs. This strategy provides a basis for UNEVOC's engagement within its global Network, aimed at improving TVET in Member States by promoting and fostering international collaboration and partnerships.

UNEVOC Network in action

The UNEVOC Network is UNESCO's unique global network of TVET institutions, ministries, national bodies, research organizations and training providers.

Coordinated by UNESCO-UNEVOC, the UNEVOC Network provides a platform for exchange, cooperation and mutual assistance that fosters interaction and peer learning among diverse TVET institutions and stakeholders around the world. The UNEVOC Network is comprised of 254 UNEVOC Centres in 166 Member States across 5 regions:

- » Africa
- » Arab States
- » Asia and the Pacific
- » Europe, CIS and North America
- » Latin America and the Caribbean

The knowledge-rich and extensive network provides opportunities for UNESCO Member States to share national and regional TVET developments, and engage in activities with the aim of strengthening their TVET systems.

Find out more about the UNEVOC Network at <https://unevoc.unesco.org/network>

During the biennium, 11 institutions joined the UNEVOC Network.

- Current UNEVOC Centres
- New UNEVOC Centres

Swiss Federal Institute for Vocational Education and Training (SFIVET), Switzerland

SFIVET acts as an interface between trade associations, professional organizations and hundreds of vocational schools and professional colleges.

National Institute of Professional Training (INFP), Haiti

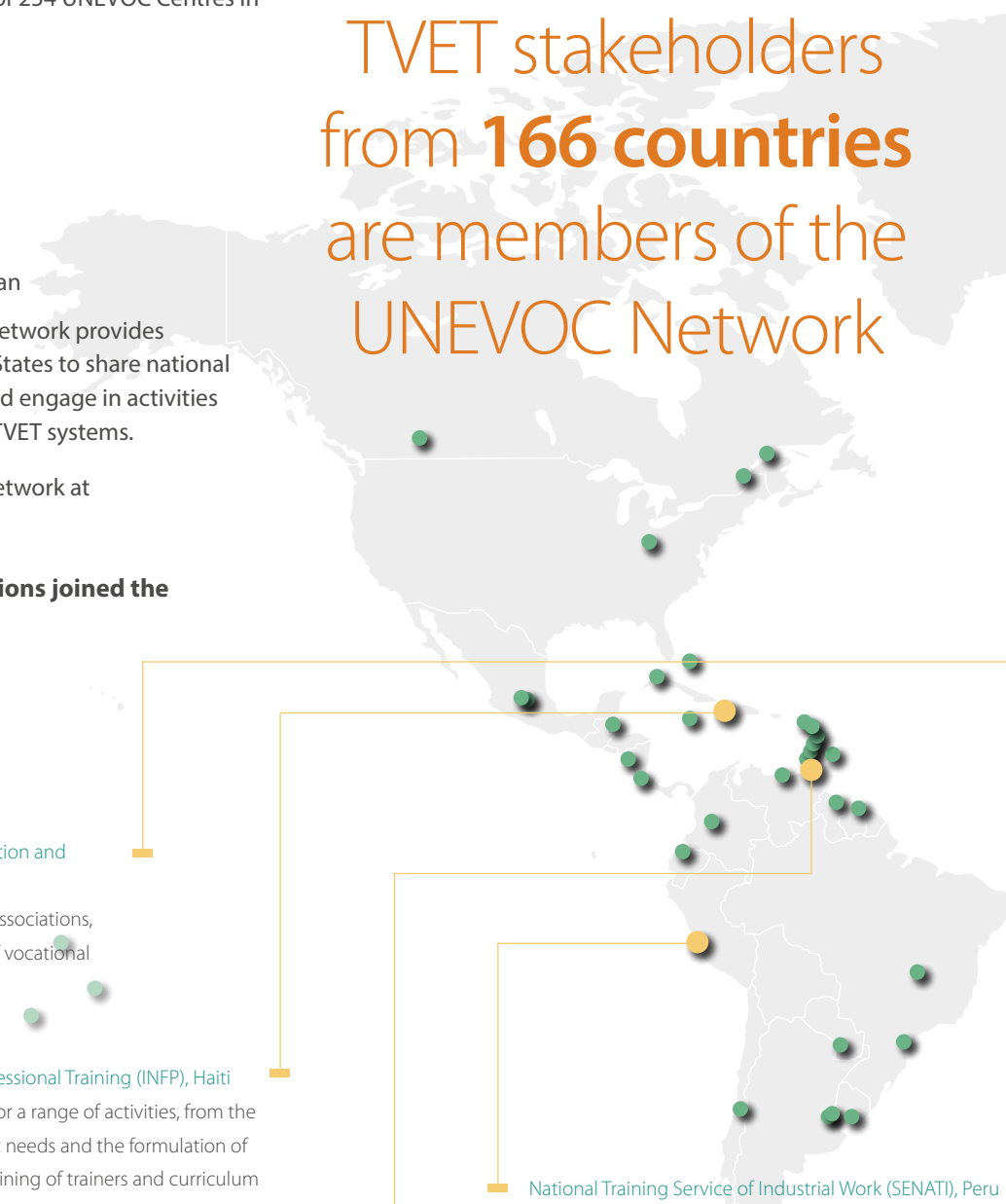
The INFP is responsible for a range of activities, from the analysis of labour market needs and the formulation of public policies, to the training of trainers and curriculum development.

National Training Agency (NTA), Trinidad and Tobago

NTA is responsible for the planning, co-ordination and regulation of TVET in Trinidad and Tobago.

254

TVET stakeholders from **166 countries** are members of the UNEVOC Network



National Training Service of Industrial Work (SENATI), Peru
 SENATI is the largest technical training institution in Peru, with more than 93,000 students across 81 branches in all regions of the country. It provides the different productive sectors with highly trained technical professionals.

National Skill Development Corporation (NSDC), India
 NSDC is a not-for-profit company set up by the Ministry of Finance. NSDC aims to promote skill development through the creation of sector skill councils and provides funding for scalable and profitable vocational training initiatives.

National Centre for Technical and Vocational Education and Training Development (NCTVETD), Romania

NCTVETD is a specialized body under the Romanian Ministry of National Education that was set up to reform the TVET system and increase employment and economic development.

Technical and Vocational Education Training Assessment Centre (TVET AC), Mongolia

The TVET AC works in collaboration with 91 TVET schools, polytechnic colleges and over 800 short-term course providers in order to establish a quality assurance management system based on TVET performance and standards.

Vocational Education, Training Partnership NGO (VETP), Mongolia

VETP works closely with the Government of Mongolia, private sector, development agencies, civil society and professional associations to identify and address development gaps in the Mongolian TVET sector.

Temasek Polytechnic, Singapore

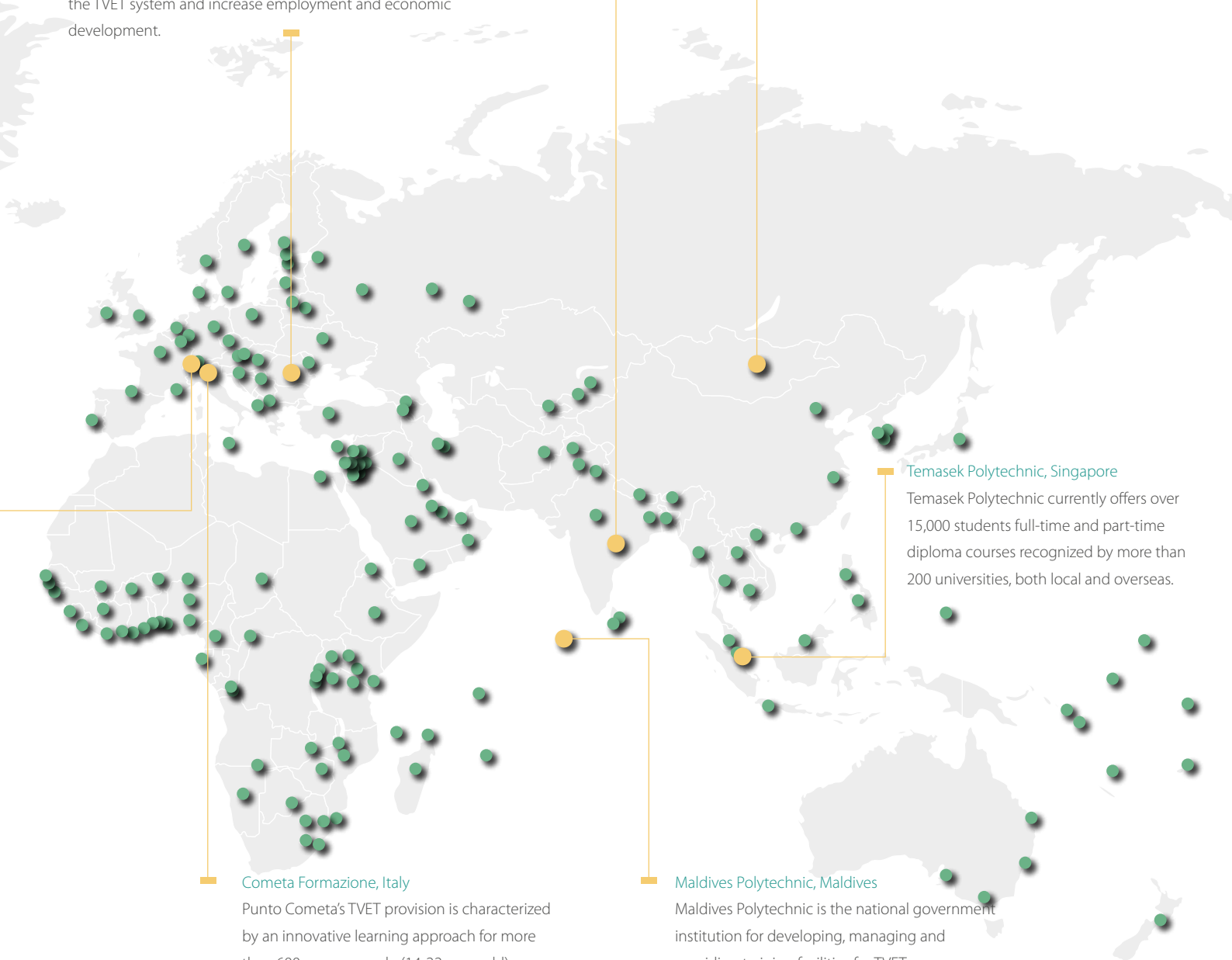
Temasek Polytechnic currently offers over 15,000 students full-time and part-time diploma courses recognized by more than 200 universities, both local and overseas.

Cometa Formazione, Italy

Punto Cometa's TVET provision is characterized by an innovative learning approach for more than 600 young people (14-22 years old), including dropouts, NEETs and migrants. The centre focuses on youth employability and entrepreneurship.

Maldives Polytechnic, Maldives

Maldives Polytechnic is the national government institution for developing, managing and providing training facilities for TVET.



Developing capacities of TVET leaders

Through its global UNEVOC Network and UNEVOC TVET Leadership Programmes, UNESCO-UNEVOC supports TVET professionals in becoming effective agents for change

In most Member States, TVET is currently undergoing important reforms and transformations to meet the changing demands of labour markets and the need for sustainable development. The potential success of these reforms rests largely on the TVET leaders responsible for converting policy into practice. These leaders have an important role to play in translating broad TVET policies into institutional actions. To bridge the capacity gaps within the different management contexts and structures of TVET, UNESCO-UNEVOC developed the flagship UNEVOC TVET Leadership Programme with an integrated approach to addressing the complex issue of leadership in TVET. Worldwide, TVET systems and institutions are still struggling to anticipate changing skills requirements and to initiate the change processes required to stay connected to global developments. For such change processes to be successful, they must be driven from the inside - by national or local leaders who have a thorough understanding of the respective national policies and context.

Established in 2016, the UNEVOC TVET Leadership Programme builds the capacity of such TVET professionals to become effective change agents in their institutions and countries. The programme enables participants to gain valuable exposure to relevant fields, including gender equality, greening TVET, work-based learning, entrepreneurship, financing, and recognition of prior learning. In addition to didactic activities, the training includes practical exercises and collaborative work. Most importantly, participants have an opportunity to connect with a network of like-minded leaders who can extend peer support throughout their journey of change implementation.

More than **260**
TVET leaders and managers from over
80 countries trained through capacity-building programmes

In 2018 and 2019, UNESCO-UNEVOC organized annual global UNEVOC TVET Leadership Programmes in Bonn, Germany, and regional UNEVOC TVET Leadership Programmes in Panama, Senegal, Thailand, and St. Lucia. The regional UNEVOC TVET Leadership Programmes focused on contextual realities and were organized in collaboration with UNESCO Field Offices and local partners, taking into account the respective stakeholders' needs.

Every UNEVOC TVET Leadership Programme shares a common structural objective: allowing mid-to-senior-level TVET experts to move to action by strengthening their vision, knowledge and skills. The substantive engagement between UNEVOC Network members, other international TVET stakeholders and local experts has provided a strong basis for the programme's success.

Find out more about the UNEVOC TVET Leadership Programme at <https://unevoc.unesco.org/tvetleadership/>



UNEVOC TVET Leadership Programme 2018 in Bonn



Regional UNEVOC TVET Leadership Programme for West, North and Central Africa in Dakar

2018 UNEVOC TVET Leadership Programmes

19

TVET leaders
from **18 countries**
trained

UNEVOC TVET Leadership Programme 2018

24 June to 5 July 2018, Bonn, Germany
Hosted by UNESCO-UNEVOC International Centre

Carried out in partnership with the BMBF, BIBB, CEDEFOP, European Commission, European Training Foundation, GIZ and JET Education Services, among others.

Regional UNEVOC TVET Leadership Programme for Central and Latin America

27 to 31 August 2018, Panama City, Panama
Hosted by: The National Institute of Vocational Training for Human Development (INADEH)

Co-implementing UNESCO entity: UNESCO Cluster Office in San José

23

TVET leaders from
7 countries trained

26

TVET leaders
from **19 countries**
trained

Regional UNEVOC TVET Leadership Programme for West, North and Central Africa

12 to 16 November 2018, Dakar, Senegal

Co-implementing UNESCO entity: UNESCO's International Institute for Educational Planning (IIEP-Pôle de Dakar)



Youssef Naour

Ministry of Vocational Training and Employment, Tunisia
attended the Regional UNEVOC TVET Leadership Programme for West, North and Central Africa in Dakar

This programme was an opportunity to share our best practices and enrich our knowledge. The andragogical approach of the programme ensured that no participant remained passive.



Patricia Guadarrama Hernández

CONALEP, Mexico
attended the Regional UNEVOC TVET Leadership Programme for Central and Latin America in Panama

This gives us a vision of our future role within TVET in Latin America. It is a great opportunity to learn about different practices that can be incorporated in our daily work.

2019 UNEVOC TVET Leadership Programmes

UNEVOC TVET Leadership Programme 2019

24 June to 5 July 2019, Bonn, Germany

Hosted by UNESCO-UNEVOC International Centre

Carried out in partnership with the BMBF, BIBB, CEDEFOP, European Commission, European Training Foundation, GIZ and JET Education Services, among others.

23

TVET leaders
from **22 countries**
trained

19

TVET leaders
from **18 countries**
trained

UNEVOC TVET Leadership Programme for Asia and the Pacific

2 to 6 September 2019, Bangkok, Thailand

Hosted by the Office of Vocational Education Commission, Ministry of Education of Thailand

Co-implementing UNESCO entity: UNESCO Asia and Pacific Regional Bureau for Education in Bangkok

UNEVOC TVET Leadership Programme for the Caribbean

23 to 27 September 2019, St. Lucia

Hosted by the Ministry of Education, Government of Saint Lucia

Co-implementing UNESCO entity: UNESCO Kingston Cluster Office for the Caribbean

25

TVET leaders
from **16 countries**
trained



Cordelia Mason

University Kuala Lumpur, Malaysia

attended the UNEVOC TVET Leadership Programme 2019 in Bonn

The programme shows how vision is converted into reality. To see these dreams put into practice is an inspiring moment for me.



Alessandro Mele

Cometa Formazione, Italy

attended the UNEVOC TVET Leadership Programme 2019 in Bonn

The lessons and activities are very well prepared and the programme provides a great opportunity to create a network.

Project in focus

Skills and Technical Education Programme (STEP)



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Training of TEVET managers in Malawi

The Malawian Technical, Entrepreneurial, and Vocational Education and Training (TEVET) system remains highly centralized. This makes it difficult for TEVET centres to react to local skills demands, attract alternative sources of income or appeal to a broader student population with new, innovative courses. As Malawi begins to shift towards a more decentralized structure, there is a need to develop the governance and capacities of institutional administrators and managers. The European Union-funded Skills and Technical Education Programme (STEP), implemented by UNESCO, aims to improve access to TEVET, review the governance and management of the system, and better equip TEVET trainers for an improved quality of delivery.

Under the capacity development component of STEP, UNESCO-UNEVOC collaborated with the UNESCO Regional Office for Southern Africa to organize training for the managers of TEVET institutions in Malawi. 127 Principals, Senior Management Officials and Board Members from 45 public technical colleges, community-run colleges and skills development centres were trained. The 10-day programme was designed to equip the colleges' Heads, Deputy Heads and Bursars with the necessary management skills for a changing policy environment. It covered generic skills for managing institutions, including finance and human resources, and units on leadership and specialized subjects such as attracting alternative financing, improving relevance and managing the learning process. These modules guided participants

on how to ensure a results-based management system in TEVET. Other topics covered included governance and planning, and monitoring and evaluation. This was rounded off with sessions on proposal writing, communications and managing approaches for health-related issues in the school environment.

Participants drew on their own management experiences to contribute to peer learning. Bursars, for instance, explained the finer points of public financial regulations during the sessions on financial management, while governing members of Community Skills Development Centres (CSDCs) shared practices in operating and mobilizing funds to support training delivery. The training helped strengthen the management competencies of Community Technical Colleges (CTCs) and CSDCs. Furthermore, selected institutions were provided with post-training mentorship to help put their vision into practice.

To assist Malawian TEVET institutions in applying the skills and knowledge they have learned through STEP, two handbooks were published:

- » Handbook for Technical Colleges in Malawi
- » Handbook for Community Skills Development Centres in Malawi

Find out more about STEP at <https://www.stepmalawi.com/>

Promoting quality TVET

Besides bilateral partnership with UNESCO-UNEVOC, UNEVOC Centres proactively interact, work and build on each other's expertise. UNESCO-UNEVOC plays an essential role in facilitating this collaboration to promote quality TVET.

For TVET institutions to deliver on evolving economic, societal and environmental demands, institutions must formulate effective strategies and take responsibility for realizing them. UNESCO-UNEVOC has been supporting TVET institutions in the realization of their development plans through technical advice and thematic interventions, building the capacity of teaching staff and other personnel, and work shadowing and peer learning, particularly through the UNEVOC Network. Through these selected activities, UNESCO-UNEVOC supported TVET institutions in implementing institutional strategies and programmes to develop the knowledge, skills and competencies that are relevant for green jobs as well as occupations adapted to entrepreneurial, digital and innovative environments.

Greening curriculum and training standards for sustainable development

Since the adoption of the Paris Agreement and the 2030 Agenda for Sustainable Development, the notion of green economies and societies has become a key issue on the international agenda that needs to be matched with an adequate supply of skills and qualified professionals. One crucial challenge remains responding to and anticipating skills for new occupational profiles as countries make a shift towards green economies. This transition offers TVET systems the opportunity to adapt curricula and outcomes that are relevant for the evolving labour market and the jobs of the future.

UNESCO-UNEVOC provides a guiding framework through its *Greening Technical and Vocational Education and Training: a practical guide for institutions*, which encourages TVET

More than
40 UNEVOC Centres
were supported through
capacity-building
programmes and the
development of tools and
guidelines

stakeholders to adopt a whole-institutional approach to greening. The guide outlines five approaches to sustainability in TVET institutions. Although targeted at institutions, these approaches are indeed relevant to ministries and national coordinating bodies for TVET.

To assist UNEVOC Centres in the implementation of the Greening TVET Guide and as part of its ongoing work in this thematic area, UNESCO-UNEVOC, jointly with the National Skill Development Corporation of India, organized a workshop in New Delhi on 4-8 March 2019. The workshop helped situate TVET in the global sustainability agenda and increased the capacities of government officials and institutional leaders in addressing the implications of green transitions for occupations and training, including the development of standards and curricula, the assessment of skills, and the anticipation of skills demands. UNEVOC Centre representatives from 15 countries benefitted from knowledge sharing of different national and regional development contexts, while learning from the experiences of the Indian Sector Skill Councils, the ministries and the TVET institutions in attendance.



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Innovating TVET to manage disruptions

In the face of rapid technological progress, threats to environmental sustainability and demographic transitions, how can we adapt our education and training systems for the changing world of work? UNESCO-UNEVOC, in collaboration with partners in the UNEVOC Network, is promoting learning and innovation in TVET, paying close attention to the effort to make substantial changes in the way TVET is organized, planned and practiced to make it more responsive to current challenges. The TVET sector is faced with various challenges, including tackling youth unemployment, ensuring pathways to lifelong learning and contributing to the achievement of the SDGs. Yet these challenges cannot be addressed using 'business-as-usual' approaches. They require existing systems and institutions to be resilient to the impact of innovations taking place in businesses and labour markets, and flexible to take action.

Government bodies and TVET providers from the UNEVOC Network in over **90 countries** are implementing UNESCO's normative instruments and strategy for TVET

In May 2018 and December 2019, UNESCO-UNEVOC organized Global Learning Forums that convened more than 150 TVET stakeholders from around the world. They discussed the impact of different forms of disruptions on skills development and examined how TVET systems are seizing the opportunity brought about by disruptions in terms of technology, changing work structures, migration and climate change, instead of being hindered by them. Among the strategies discussed, TVET experts gravitated towards building on actions that make TVET systems enabled and informed, prioritizing and using internal capacities, partnering with the local skills ecosystem, and raising awareness of international trends to overcome issues driven by external disruptions to a given system or process.

A key message that resonated throughout the forums was the call to minimize the negative effects of disruptions and translate them into innovative opportunities that promise job readiness, youth empowerment, consultative process in policy development, and multi-level participation and accountability in TVET.

Both forums provided insight from three stakeholder groups: the youth, the private sector, and the TVET sector. Organized with the support of the German Federal Ministry of Education and Research (BMBF) and the Federal Ministry for Economic Cooperation and Development (BMZ), the forums successfully underlined the challenges to fostering innovation at the national, regional and international level, and outlined a way forward that builds on the current opportunities that promote peer learning for innovation within the UNEVOC Network.

For more information on the forums:

- » 2019 UNEVOC Global Forum: <https://unevoc.unesco.org/alit/>
- » 2018 UNEVOC TVET Learning Forum: <https://unevoc.unesco.org/learningforum/>



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Promoting digital skills and entrepreneurial mindsets

One of the most difficult tasks in promoting entrepreneurship and innovation in the TVET sector is the creation of a conscious ecosystem that not only fosters the interest of students in the classroom but also establishes an environment where skills and creativity can flourish to produce results. Hackathons were initially thought of as computing marathons where programmers and IT-related professionals collaborated intensively on software and hardware solutions over a couple of work-intensive days. More recently, they have been adapted to TVET-oriented environments to foster innovative solutions across various sectors. While not the end in itself, hackathons are a tried and tested way to promote a healthy yet competitive environment, and stimulate creativity while developing digital skills and entrepreneurial mindsets that are crucial to face the challenges of the 21st century.

To support selected UNEVOC Centres in Latin America in promoting the use of hackathons in TVET learning and in line with its thematic priority of fostering youth entrepreneurship, UNESCO-UNEVOC, together with the Brazilian National Council of the Federal Network of Vocational, Scientific and Technological Education Institutions (CONIF), organized a UNEVOC Network-led capacity development programme on 16-19 October 2019 in Rio de Janeiro, Brazil.

The organizers of Hacking Rio, the largest hackathon in Latin America, trained twenty-seven teachers and trainers from Brazil, Chile, Colombia, Costa Rica, Mexico and Paraguay.

The practical training included sessions on how to organize successful student challenges during hackathons, strategies to attract private sector sponsors to hackathons, and ways to use post-hackathon momentum to encourage student start-ups. This was followed by the opportunity to attend sessions at Hacking Rio to see first-hand how the hackathon was implemented.

Over the course of the training programme, participants benefitted from interactive sessions on intellectual property in entrepreneurial environments and engaged in peer learning activities where they discussed the current institutional challenges in terms of teacher training in digital skills, supporting innovative thinking and enhancing problem-solving skills. The participating UNEVOC Centres all committed to hosting hackathons at their institutions in 2020, with the possibility of a regional hackathon to follow.

Empowered institutional leaders, teachers and trainers in over **80 countries** are implementing guiding tools and resources to initiate transformative change

Project in focus

Skills for Innovation Hubs (i-hubs)



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i-hubs ensures that TVET institutions act as important contributors to the creation of an innovation ecosystem, remain relevant as drivers of skills for employment, economic growth and inclusive social development, while being in step with fast-paced economic and societal changes.

In recent times, the term innovation has been applied to different sectors to reference improved quality of life, enhanced public services and tailor-made responses to society's needs. As TVET adapts itself to the impacts of various disruptions, innovative practices have emerged with the potential to ensure that the provision of quality TVET remains relevant and accessible to all.

The speed and scale of change in technological and other economic growth sectors calls for a new and radical shift in education and training. Within the education and training sector, TVET institutions are increasingly being empowered to initiate change in the usual mode of working, adapt skills provisions that meet the demands of industries and foster partnerships that can support institutional innovation and development. As organizational innovation is increasingly becoming a feature of a dynamic labour market, the TVET sector is constantly being reshaped to adapt to this dynamism, thereby increasing citizens' potential to innovate. Indeed, TVET needs to innovate to remain a relevant, attractive option for industry and small and medium-sized enterprises.

In the face of these emerging challenges, UNESCO-UNEVOC promotes systematic ways for TVET institutions to drive innovation. The Skills for Innovation Hubs (i-hubs) project was kicked off with an experts' workshop in November 2018 and a launch event in March 2019. The project aims to develop an institutional framework for TVET institutions to access their potential to develop the transversal and technical skills needed for innovation, and implement innovation in

existing leadership and organizational practices, teaching and learning processes, and products and services. Through the implementation of the i-hubs project, UNESCO-UNEVOC affirms that innovation in TVET is not only about delivering skills; TVET contributes to innovation by being an active part of a dynamic skills ecosystem, where it can play a role in the innovation process in businesses, communities, and schools. This is a major adjustment in the TVET institutional attitude and a powerful driver for establishing mutually engaging relations between TVET institutions and the ecosystem.

In March 2019, the i-hubs project was rolled out in collaboration with ten pilot institutions as i-hub project partners. All of the ten project partners were experienced in and committed to innovation, specifically in the sectors of entrepreneurship, digitalization and greening. This experience is fundamental to the success of the project, which relies on expertise pooling, knowledge sharing, and peer review to develop innovative practices and learning materials.

Following the project launch, a series of institutional assessment workshops were organized as platforms to test and co-develop the 'Innovation Framework'. Guided self-assessment workshops were held at the project sites in China, Germany, Seychelles, Nigeria, Philippines, Finland, Malta, Spain and Kenya. As the project enters the post-assessment phase, the focus will shift towards sharing the didactic approaches and knowledge gained from the implementation of innovative practices with the wider TVET community.

Find out more at <https://unevoc.unesco.org/i-hubs/>

Strengthening Network collaboration and partnerships

UNESCO-UNEVOC stimulates collaboration and partnerships between members of the UNEVOC Network to enable UNEVOC Centres to identify common issues, formulate strategic action through capacity-building and research collaboration, and implement programmes leading to clear results and positive impacts.



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Fostering peer learning in the UNEVOC European cluster

As part of UNESCO-UNEVOC's ongoing efforts to strengthen the engagement of European UNEVOC Centres in regional activities, a consolidation workshop was held on 13 and 14 March, 2018 in Bonn. Participants from 18 UNEVOC Centres in 17 countries took part in discussions where they identified key thematic interests and needs as established in UNESCO-UNEVOC's MTS-II. The opportunity was also taken to involve UNEVOC Centres from Africa and Asia in the meeting to lay the groundwork for future cross-regional collaborations within the UNEVOC Network.

The key thematic interests identified by the UNEVOC Centres included Industry 4.0, entrepreneurship, migration and skills, greening TVET, and the attractiveness of TVET. The discussions focused on taking stock of challenges faced by the UNEVOC Centres in each of these thematic areas, with the aim of identifying opportunities for a collective response. These collaborative opportunities and peer learning sessions led to the conceptualization of the Bridging Innovation and Learning in TVET (BILT) project, which was launched in December 2019.

Throughout the meeting, the participants discussed the development of activities, products and services that could facilitate knowledge exchange and build capacity among TVET institutions engaged in the transformation of TVET in Europe.

Project in focus

Bridging Innovation and Learning in TVET (BILT)



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The Bridging Innovation and Learning in TVET (BILT) project seeks to support TVET institutions in addressing transformational challenges and exploring innovative approaches and new practices.

Rapid technological innovations, the increasing awareness of environmental responsibility and the societal demand for inclusive and sustainable development are changing the way we live and work. A main challenge for TVET is to keep pace with these developments while remaining attractive to learners and relevant to potential employers.

The aim of the BILT project is to enable the exchange of experiences and peer learning across the UNEVOC Network on transformational challenges facing TVET systems in the thematic areas of greening, digitalization/Industry 4.0, entrepreneurship, migration, and new qualifications and competencies. Following the kick-off conference in July 2019, five experts' workshops were held between October and December 2019 in each of the project's thematic areas. In these workshops, participants analysed good practices, addressed current challenges and presented innovative solutions that could be transferable to other regions within the UNEVOC Network. The official project launch was held in December 2019 during the Global Forum on Advancing Learning and Innovation in TVET in Bonn, Germany.

In the European cluster of the UNEVOC Network, there is already a wealth of expertise in addressing TVET challenges,

but there had been little space to exchange experiences related to the implementation of new ideas and concepts with other UNEVOC Centres. Such an exchange, however, could help accelerate innovation to ensure modern and quality TVET, both in Europe and beyond. With national competencies in view, the project supports collaborative activities that are targeted to enhance national as well as multinational TVET capacities, generate new knowledge and facilitate knowledge sharing.

The first phase of the project focuses on mobilizing and reactivating the UNEVOC European cluster as a platform for fostering learning and establishing content-oriented synergies in TVET. This will act as a springboard for transregional action, branching out to bridge innovation and learning with UNEVOC Centres from Asia and the Pacific as well as Africa. The BILT project is carried out in collaboration with the UNEVOC Network, coordinated by UNESCO-UNEVOC with the support of the German Federal Institute for Vocational Education and Training (BIBB), and sponsored by the German Federal Ministry of Education and Research (BMBF).

Find out more at <https://unevoc.unesco.org/bilt/>



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Improving TVET systems in Africa for youth employability

On 18-20 June 2019, 13 UNEVOC Centres from 8 countries attended a regional forum on 'Improving TVET systems for youth employability in Africa'. The workshop was organized in Nairobi, Kenya by the UNESCO International Institute for Educational Planning - Pôle de Dakar (IIEP-Pôle de Dakar), the Luxembourg Agency for Development Cooperation (LuxDev), and the Francophonie Education and Training Institute (IFFE), and focused on the quality of training and certification schemes in relation to improving the employability of graduates.

As youth employment continues to be one of the most pressing challenges facing the African continent, the workshop saw representatives from over 30 African countries come together to share experiences, approaches, obstacles, and innovations related to youth employability within the public and private sector, and at the national and local level. Participants also discussed concrete ways to improve the quality and performance of TVET systems.

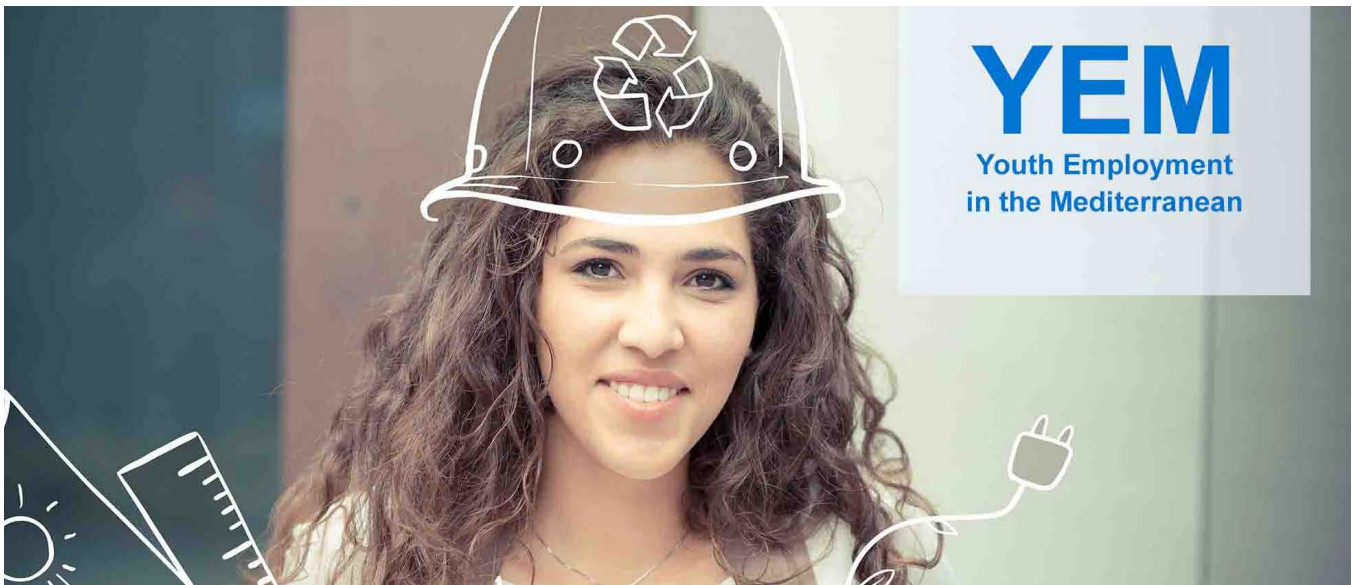
During the three-day workshop, UNESCO-UNEVOC took the opportunity to organize a strategic meeting with representatives from UNEVOC Centres to discuss strengthening of their institutional capacities to innovate organizational practices and teaching processes as well as the next steps to improve stakeholder engagement.

Strengthening ties in the UNEVOC Latin American cluster

During the biennium, UNESCO-UNEVOC and UNEVOC Centres in Latin America focused on consolidating and strengthening collaborative efforts through workshops, conferences and capacity development programmes. In September 2018, UNEVOC partners from Chile, Colombia, Mexico, Brazil and Paraguay participated in a UNEVOC Network cluster meeting in Buzios, Brazil. The meeting took place during the first two days of Brazil's annual REDITEC event and was jointly organized by the Brazilian National Council of the Federal Network of Vocational, Scientific and Technological Education Institutions (CONIF) and UNESCO-UNEVOC.

Each year, the REDITEC meeting assembles the Rectors of Brazilian Federal Institutes and Centres of Vocational, Scientific, and Technological Education to evaluate and discuss practices in the Federal Network. The Federal Network works with an emphasis on professional and technological education as well as the development of applied research and innovation.

The cluster meeting facilitated partnerships in terms of capacity development, knowledge management, and information sharing. Participants identified a series of common activities for consolidating the network, namely greater contributions to the development of region-specific knowledge resources. One of the defined activities, promoting entrepreneurial mindsets through hackathon training, was organized as a Network-led capacity development programme in 2019.



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Facilitating collaboration in the UNEVOC East and Southeast Asian cluster

UNESCO-UNEVOC facilitates cluster-based approaches as part of the successful implementation of its MTS-II towards collaboration and peer learning. Tapping into the potential of individual members of the UNEVOC Network as well as their collective strengths, the consolidation process helps to identify priorities within the various UNEVOC Network clusters and creates opportunities to work together and share experiences. In 2018 and 2019, the Korea Research Institute for Vocational Education and Training (KRIVET), the UNEVOC cluster coordinating centre for the East and Southeast Asian cluster, hosted workshops in Seoul as part of an ongoing effort to strengthen policy exchange and peer learning among UNEVOC Centres in the cluster.

Participants convened to discuss how TVET can respond to the digitalization of work environments and adoption of technologies in everyday life, the demands of a green economy, and how to increase the attractiveness of TVET through establishing quality TVET systems. Technical input and discussions emphasized STEAM (Science, Technology, Engineering, Arts and Maths) skills as a new set of foundation skills needed to thrive in a rapidly changing technology-enabled environment. The main outputs of these annual workshops was the outlining of critical cluster-relevant TVET issues, and the identification of concrete cooperation projects with a clear implementation strategy to promote capacity development and knowledge development in TVET.

Promoting youth employment in the Mediterranean

The Youth Employment in the Mediterranean (YEM) project is a three-year regional initiative funded by the European Union and implemented by UNESCO over the period 2018-2020. The YEM project aims to support youth employment in Algeria, Israel, Jordan, Lebanon, Libya, Morocco, Palestine and Tunisia.

Promoting productive employment opportunities for young people continues to dominate the global policy agenda, particularly in the YEM partner countries. The main objective of the project is the sustainable capacity development of key policy stakeholders across the eight countries in the areas of skills anticipation, work-based learning, digital skills mainstreaming and entrepreneurship.

Within the scope of this project, UNESCO-UNEVOC engaged in fostering greater regional collaboration and knowledge sharing through the development of a dedicated YEM knowledge platform. This platform serves as a repository of knowledge resources and relevant datasets produced as part of the YEM project, as well as those by other relevant stakeholders. It also provides composite information on the TVET system and the project's engagement in each country. Most importantly, the YEM knowledge platform brings together a growing community of practice that comprises of key experts representing governments and industry.

Access the YEM knowledge platform at <https://unevoc.unesco.org/yem/>

UNEVOC Network collaborative research projects

Collaborative research projects aim to bring together UNEVOC Centres with strong research expertise to conduct studies on contemporary trends and issues in TVET. Collaboration and the sharing of experiences are important components of these projects, as are the resources that can support UNEVOC Centres to take action.

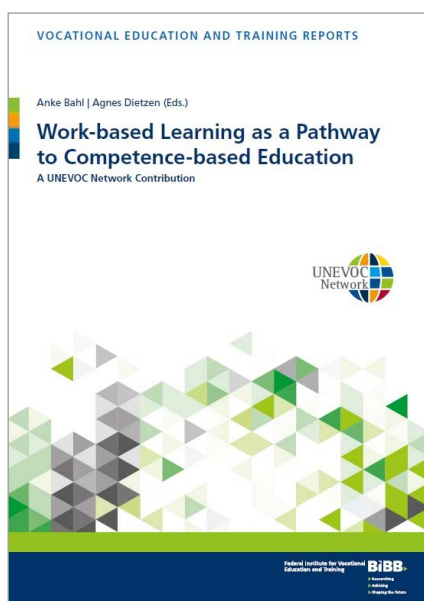
Community engagement in TVET

This UNEVOC Network collaborative research study was led by Cégep de la Gaspésie et des Îles of Canada and examined how community engagement was carried out in UNEVOC Centres across the UNEVOC Network's five regions. The final report looks at key factors playing a role in the success or failure of community engagement and assesses the benefits of promoting community engagement.



Work-based learning as a pathway to competence-based education

Led by the Federal Institute for Vocational Education and Training (BIBB), this collaborative research study provides a rich collection of perspectives around central topics in the field of work-based learning. Inspired by evidence from diverse national projects, the study offers new insights into the conducive factors to setting up competence-based education systems.



The studies can be found in UNESCO-UNEVOC's online library:
www.unevoc.unesco.org/publications

Generating new knowledge resources

To align TVET with the challenges and prospects that the changing world of work demands, there is a constant need for the development and sharing of collaborative research that addresses contemporary trends.

During the last biennium, UNESCO-UNEVOC adopted a threefold approach to generating new knowledge resources: (i) developing new knowledge, (ii) mapping trends and developments, and (iii) facilitating knowledge sharing and peer learning. UNEVOC Centres were encouraged to contribute to UNESCO-UNEVOC's knowledge resources by sharing their insights, experiences and information about lessons learned that could be adapted to other TVET settings and useful for the global TVET community.

TVET Country Profiles

In 2018, UNESCO-UNEVOC rebooted and enriched the content of its TVET Country Profiles. Previously known as the World TVET Database, the aim of TVET Country Profiles is to provide concise, reliable and up-to-date information on TVET systems worldwide. 22 new and updated country profiles were published during the last biennium, with more lined up for publication in 2020.

Through its ever-expanding collection of TVET research and publications, UNESCO-UNEVOC has created a resource-rich environment for TVET learners, leaders and trainers to access valuable information and initiatives

TVET Country Profiles are the result of collaboration between UNESCO-UNEVOC and the TVET stakeholders in each country, particularly the UNEVOC Network members. These also include collaborations with regional stakeholders, such as SEAMEO-VOCTECH for 11 countries in South East Asia and GIZ NEPAD for Africa.

<https://unevoc.unesco.org/home/TVET+Country+Profiles>

TVeT forum

The TVeT forum is a virtual community of TVET experts from around the world. Members engage in discussions and share knowledge and experiences on TVET-related issues for TVET policy-makers, researchers and practitioners. It is also used to announce international conferences and workshops, and to provide information about publications and other resources. At the end of 2019, the TVeT Forum had 6529 members from more than 180 countries, a 22 per cent increase over the previous biennium. Members come from a variety of professional backgrounds, including the fields of academia, policy and practice.

www.unevoc.unesco.org/tvet-forum



Promising practices

UNESCO-UNEVOC identifies and shares promising practices for the benefit of the global TVET community, including policy-makers and practitioners. The aim of the database is to share knowledge of established innovative practices that promote TVET in a thought-provoking way within a particular local or regional context. During the biennium, UNESCO-UNEVOC collected and disseminated promising practices based on five criteria: impact, knowledge base, stakeholder engagement, sustainability, and relevance to the SDG targets. 4 promising practices from around the world were published in 2019:

- » Campos dos Goytacazes Innovation Hub, CONIF. Brazil
- » Recognition in Germany, BIBB. Germany
- » Entrepreneurial Culture, Ikasenpresa, TKNIKA. Spain
- » DAPP Mikolongwe Mobile Training Centre, DAPP. Malawi

www.unevoc.unesco.org/promising-practices

More than **70**
UNEVOC Centres
actively participated in
knowledge sharing and
resource development

Virtual conferences

In addition to the ongoing discussions on the UNEVOC TVeT forum, UNESCO-UNEVOC organized 7 virtual conferences during the biennium. The virtual conference synthesis reports provide a summary of the discussions and additional background information on the themes covered, including case studies and promising practices.

<https://unevoc.unesco.org/home/UNESCO-UNEVOC+Virtual+Conferences>

Improving the image of TVET: making TVET more attractive to young people

16 to 24 July 2018. Moderated by Stephen Billett (Griffith University, Australia)

Held on the occasion of World Youth Skills Day, the virtual conference discussed ways to enhance the image of TVET and make it more attractive to young people.

Safeguarding intangible cultural heritage in TVET

29 October to 7 November 2018. Moderated by Panas Karampampas and Wouter de Regt

The virtual conference considered on the one hand how communities and groups can strengthen the safeguarding of their intangible cultural heritage through TVET, and on the other, how ICH can contribute to TVET.

Entrepreneurial learning in TVET

26 November to 7 December 2018. Moderated by Elin McCallum (Bantani Education)

The virtual conference considered the importance and relevance of entrepreneurial learning to TVET, and shared practical ideas to empower TVET learners with entrepreneurial mindsets and skills.

Innovation in TVET

25 February to 1 March 2019. Moderated by Jan Peter G. de Otero

The virtual conference discussed the different roles TVET plays in systems of innovation, the use of innovation to improve the quality of TVET and the main barriers to innovation in TVET.

Inclusion in technical and vocational education and training

1 to 12 July 2019. Joyceline Alla-Mensah (University of Nottingham, UK)

Organized in collaboration with UNESCO's Global Education Monitoring Report (GEMR), this virtual conference discussed and identified suitable measures to support inclusive TVET. The insights and evidence gathered in this virtual conference contributed to the 2020 GEMR report.

Future of TVET teaching and learning

7 to 14 October 2019. Moderated by Gita Subrahmanyam (Inclusive Development Lab)

The virtual conference gathered insights on the future of TVET teaching and learning in the context of global disruptions and a rapidly changing labour market. Insights gained from the virtual conference formed part of the evidence base for UNESCO-UNEVOC's trends mapping study on 'the future of TVET teaching and learning'.

Artificial intelligence in education and training

11 to 15 November 2019. Moderated by James Keevy and Kelly Shiohira, JET Education Services (South Africa)

The virtual conference engaged participants to better understand the link between AI and TVET, and particularly the impact of AI on intermediate-level skills or occupations.





Trends mapping studies

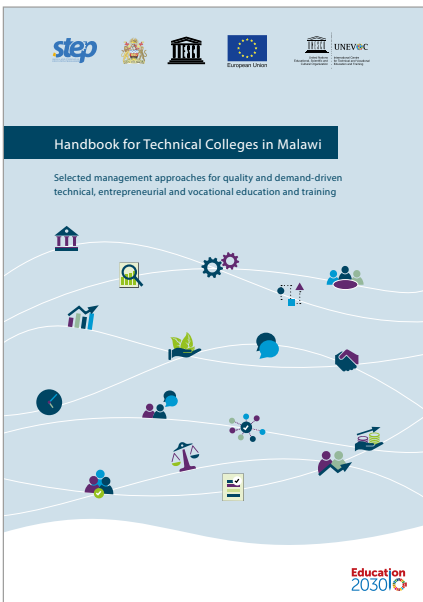
Trends mapping studies aim to further the international community's understandings on contemporary key issues concerning TVET. The studies review existing literature and policies, and engage TVET stakeholders from around the world through surveys and virtual conferences. 2 trends mapping studies were launched during the biennium: a study on innovation in TVET, and another on the future of TVET teaching and learning.

Publications

Below is a selection of publications. More can be found in UNESCO-UNEVOC's online library.

- » Trends mapping on Innovation in TVET (2019)
- » Handbook for Technical Colleges in Malawi (2019)
- » Handbook for Community Skills Development Centres in Malawi (2019)
- » Discussion paper on Mainstreaming Entrepreneurial Learning in TVET (2019)

www.unevoc.unesco.org/publications



Bulletins

The UNESCO-UNEVOC Bulletin informs experts and institutions in the field of TVET about UNESCO-UNEVOC's activities. It also serves as a platform for UNEVOC Network members to report on their work. During the biennium, three issues of the Bulletin were published online in English, French, and Spanish.

www.unevoc.unesco.org/bulletin

Shanghai Update

To keep track of the progress made following the UNESCO Third International Conference on TVET in 2012, UNESCO-UNEVOC, together with UNESCO's Section for Youth, Literacy and Skills Development, publishes a newsletter, the Shanghai Update. Over the course of the biennium, two editions of the Shanghai Update were developed.



Themes in focus



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Digitalization

Continual digital transformation means learners must be equipped with the relevant knowledge and ICT skills to successfully navigate everyday work and life.

Despite rapid technological developments, major hindrances still exist to the digitalization of TVET, particularly related to learning centres' access to resources, connectivity, localization and customization. Indispensable for preparing skilled workers for the world of work, but also for the process of their education, new tools and technologies have greatly impacted the role of teachers and trainers. Although technology cannot and should not replace teachers, it is essential that digital resources and skills are integrated into curricula to ensure learners are adequately prepared to enter the changing technological landscape of today's labour market.

In present times, networking is the most important resource and the pursuit of quality, accessible TVET benefits immensely from it. The internet is the most valuable digital tool for connecting TVET experts around the world and UNESCO-UNEVOC has taken advantage of this to provide TVET teachers, trainers and experts with the opportunity to share valuable knowledge resources, promising practices and experiences.

A growing number of platforms with Open Educational Resources (OER) form another instrumental online resource. Even though there is an abundance of learning resources now available online, most come with strict copyright restrictions

limiting the collaborative opportunities of teachers and trainers. OER bypasses this issue and puts the power in the hands of teachers and trainers to improve the quality of the educational materials available to them. A UNESCO-UNEVOC study found that OER's potential for TVET has not yet been fully realized; the results are summarized in the 2018 handbook entitled 'Open educational resources for skills development'. UNESCO's General Conference in November 2019 saw the adoption of the UNESCO Recommendation on OER as a new standard-setting instrument.

UNESCO-UNEVOC facilitated a number of events in the biennium focusing on the effects of digitalization on TVET: the BILT workshop on digitalization/Industry 4.0, a virtual conference on artificial intelligence in education and training, and an experts' workshop on adapting the UNESCO ICT Framework for Teachers for TVET, supported by Niagara College, Canada. In 2019, UNESCO-UNEVOC also launched its first Global Open Educational Resources Grant Programme. Under the programme, 5 grants of up to 5,000USD are provided to TVET institutions to develop, adapt or curate open educational resources.

Find out more at <https://unevoc.unesco.org/home/ICT+in+TVET>

Migration and TVET

Despite global efforts to promote inclusion, barriers to the pursuit of skills development and training persist for many migrants.

Migration and displacement are complex global challenges that strongly affect education, learning and employment outcomes in all countries. As the need for a multifaceted approach becomes increasingly evident, UNESCO has proposed an ambitious education agenda as well as monitoring tools – such as the World Inequality Database on Education – that directly address diversity and inclusion in education.

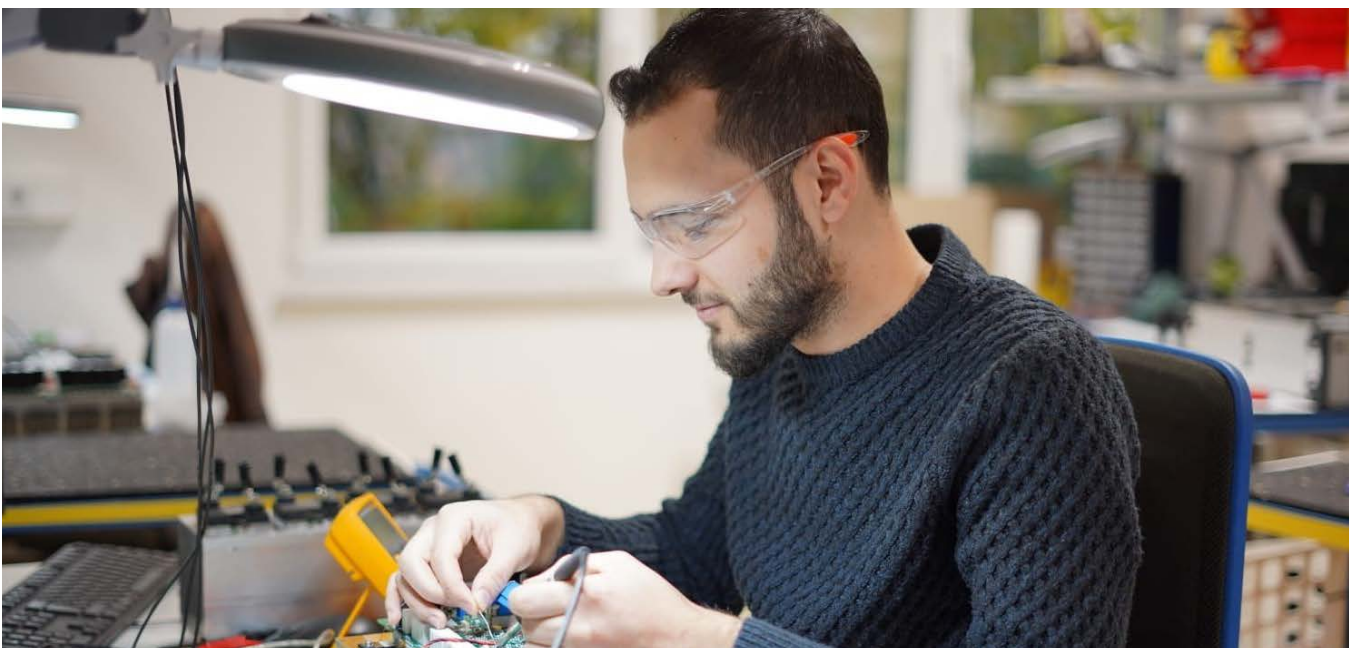
With its focus on skills enhancement, training in real world settings and lifelong learning, TVET can play a pivotal role in promoting labour insertion, increasing social mobility and reducing inequalities. Migrants of all ages can be more effectively integrated into TVET systems by creating new curricula that adapt to multilingual needs, promoting the recognition of prior learning and qualifications, and facilitating the acquisition of work experience. Equal labour market access and a successful school-to-work transition have also been identified as key drivers for the social and professional integration of migrants and refugees.

UNESCO-UNEVOC recognizes that TVET is well suited to foster migrants' sense of belonging, reduce barriers to labour market entry and contribute to inclusive societies. Strengthening TVET systems in countries of origin and destination enhances opportunities at the local level and supports education systems in absorbing migrants.

Furthermore, efforts are being made to better manage migration pressure through a more labour market-oriented framework on legal migration and on global skills and labour mobility partnerships. This strategy has the potential to bring significant economic growth and sustainable development to all parties involved, and it requires the commitment of TVET stakeholders in sending, transit, and receiving countries.

Early support is a decisive factor in successful integration. However, approaches to migrants' inclusion vary across countries and regions. In an effort to address the current integration challenges and evolving skills demands related to migration, the Bridging Innovation and Learning in TVET (BILT) project offers an important platform for exchange on recognition of prior qualifications and career guidance, social integration, and labour and skills mobility among members of the UNEVOC Network. These exchanges will form the basis for cross-regional dialogue around the challenges and opportunities presented by migration, and enable institutions to better manage inclusion of migrants within TVET systems.

Find out more at
<https://unevoc.unesco.org/home/Migration+and+TVET>





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Future of TVET teaching

Preparing TVET teaching staff for the future requires a strong combination of policy focus, institutional capacities and empowering practitioners with essential competencies.

UNESCO's Recommendation concerning TVET (2015) recognizes the crucial role of teaching staff in assuring TVET quality and relevance, and states that 'policies and frameworks should be developed to ensure qualified and high-quality TVET staff, including teachers, instructors, trainers, tutors, managers, administrators, extension agents, guidance staff, and others'. New job roles call for a shift in education and vocational training paradigms, creating an urgent need for skilling, upskilling and reskilling of the new and existing workforce. Reforms at system level need to include the frontline – the teachers and trainers – and prepare them for delivering more flexible, quality-oriented and forward-looking TVET.

Development of teacher and trainer capacity is at the core of UNESCO-UNEVOC's ongoing thematic priorities on greening, digitalization, entrepreneurship and gender equality. During the last biennium, UNESCO-UNEVOC empowered institutional leaders, teachers and instructors to more effectively manage their tasks through capacity-building programmes and peer learning activities that focused on the exchange of best practices and the dissemination of knowledge resources.

UNESCO-UNEVOC actively advocates for the development of teacher capacities, and in 2018, took part in the International

Task Force on Teachers for the 11th Policy Forum in Jamaica. The Policy Forum highlighted TVET teachers as one of the key sub-themes for the first time. With the intent of gathering insights on policies, practices, frameworks and mechanisms that affect TVET teaching-learning, exploring the latest trends that are impacting the current and future competencies, and developing a framework of essential competencies for 21st century teaching, UNESCO-UNEVOC also initiated a trends mapping study in 2019 on the future of TVET teaching. For World Teacher's Day in 2019, the theme of which was 'Young Teachers: The Future of the Profession', UNESCO-UNEVOC organized an online campaign celebrating the hard work and innovative approaches of TVET teachers and trainers within the UNEVOC Network.

As the global community re-imagines how knowledge and learning can shape the future of humanity and the planet, UNESCO-UNEVOC recognizes that teachers and educators will have a central role to play and is committed to continuing its work with institutions and partners to empower teachers and trainers for the future of TVET teaching.

Find out more at <https://unevoc.unesco.org/home/future+of+TVET+teaching>

Intangible cultural heritage

When the concept of intangible cultural heritage (ICH) is embedded in TVET curricula, students become not only part of safeguarding their intangible culture, but also develop their talents based on their cultural heritage.

Modern society has seen the intergenerational transmission of knowledge on culture, tradition, artisanship and indigenous cultures threatened by the emergence of new technology, changing demographics, and shifting labour patterns. To counteract this phenomenon, UNESCO's Convention on the Safeguarding of Intangible Cultural Heritage adopted a strategy that focuses simultaneously on the promotion of capacity building and the preservation of cultural identity.

This cross-section approach takes advantage of the synergies between ICH – such as traditions, practices, knowledge and skills to produce crafts – and TVET. Through training and skills development, both youth and adults can further develop their competencies for work and their livelihoods. Cultural heritage does not end at monuments and museum collections; it also extends to oral traditions, performing arts, social practices, and the knowledge and skills to produce traditional crafts.

UNESCO-UNEVOC's Medium-Term Strategy II promotes approaches that safeguard ICH while contributing to the achievement of the 2030 Agenda for Sustainable Development; the baseline is that education and training are an important vehicle for delivering many of the SDGs. More specifically, safeguarding ICH through TVET can contribute to improved access to affordable and quality TVET. At the same time, TVET develops capacities for the protection of ICH that demand relevant professional, technical and social competencies.

During the last biennium, UNESCO-UNEVOC engaged in a variety of activities that focused on strengthening the linkages between ICH and TVET. The International Centre organized a virtual conference to discuss the cross-section between ICH and TVET with the international community. It also collected case studies and best practices, and conducted a study with the University of Canterbury on existing practices that link ICH to TVET. These initiatives offered an important space to engage TVET institutions in dialogue and to examine the potential approach for planning ICH-oriented curricula and activities involving cultural bearers and communities.

ICH can provide context-specific content and pedagogy for TVET programmes, thereby improving the quality and relevance of TVET, and improving overall learning outcomes. By continuing its work towards the safeguarding of ICH through TVET, UNESCO-UNEVOC strives to reinforce the quality of pedagogy while adapting the content of TVET curricula to suit emerging societal needs.





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Gender equality

Ensuring not only equal access, but also equal empowerment through education requires transformative thinking and action.

Unleashing the full potential of education and training to tackle unequal power relations, social norms, discriminatory practices and belief systems that underpin gender inequality and exclusion in society is an important part of UNESCO's efforts to promote access to quality education and training for all. This includes the essential first step of ensuring gender parity in enrolment and completion at different levels of education as well as fostering learning environments that are supportive for girls and boys.

UNESCO has identified gender equality as a global priority and the international community's commitment to gender equality in education and training is well embedded in SDG 5 on Gender Equality and SDG 4, which aims to ensure the right to inclusive and equitable quality education and lifelong learning for all. Extending this commitment, UNESCO-UNEVOC works to promote equal access to quality TVET for all. While education and training has the potential to play a decisive role, global TVET systems are still confronted with challenges. Overall, female students have lower representation in TVET compared to general programmes. The UNESCO Institute for Statistics estimated that 43% of students enrolled in vocational programmes at the upper secondary in 2017 were female, compared to 49% in general programmes. Moreover, gender disparities are more pronounced in certain fields than in others. In particular, girls and women tend to be under-represented in fields that require science, technology,

engineering and mathematics (STEM) skills and knowledge. This under-representation can have significant consequences. STEM skills and knowledge are often essential for the so-called 'jobs of the future,' driving innovation, inclusive growth and sustainable development. Greater female participation in these programmes and careers can therefore potentially contribute to their empowerment and social well-being.

Within this context, UNESCO-UNEVOC organized an experts' workshop to understand the underlying causes of gender disparities in these fields. Experts from 10 UNEVOC Centres from all over the world discussed the key factors that are causing inequality in STEM-related TVET, such as inadequate policy frameworks, societal attitudes, the nature of STEM in the classroom and workplace, as well as how they impact the mindsets of girls and women to pursue education and training in STEM subjects. Experts shared insights and identified areas for further research and ways to address current challenges related to gaps in indicators and data collection. Following the workshop, UNESCO-UNEVOC, together with the 10 UNEVOC Centres, conducted a study on gender equality in STEM-related fields in TVET, to be published in 2020.

Find out more at
[https://unevoc.unesco.org/home/
Equity+and+gender+equality](https://unevoc.unesco.org/home/Equity+and+gender+equality)



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Youth and skills

World Youth Skills Day emphasizes the importance of TVET in providing youth with the opportunities to develop their competencies and facilitate their school-to-work transition.

Empowering youth with relevant skills for the world of work is an essential component of the 2030 Agenda. By 2030, the population of youth (between the ages of 15 and 24) is expected to reach 1.3 billion (UN DESA 2019).

267 million young people are currently not in employment, education or training (NEET), and many more endure substandard working conditions (ILO 2020). In the wake of technological, environmental and demographic shifts, the challenge of creating jobs and livelihood opportunities is immense. However, creating job opportunities without responsive skills development for the world of work will exacerbate the skills mismatch and yield limited results.

TVET systems around the world are transforming to better respond to current and emerging challenges. This transformation, though varied across regions and levels of development, includes the transition of TVET from a vehicle for functional skills development for employability to the development of broad-based and transversal skills that enable its graduates to access further opportunities for learning and upskilling throughout the course of their lives.



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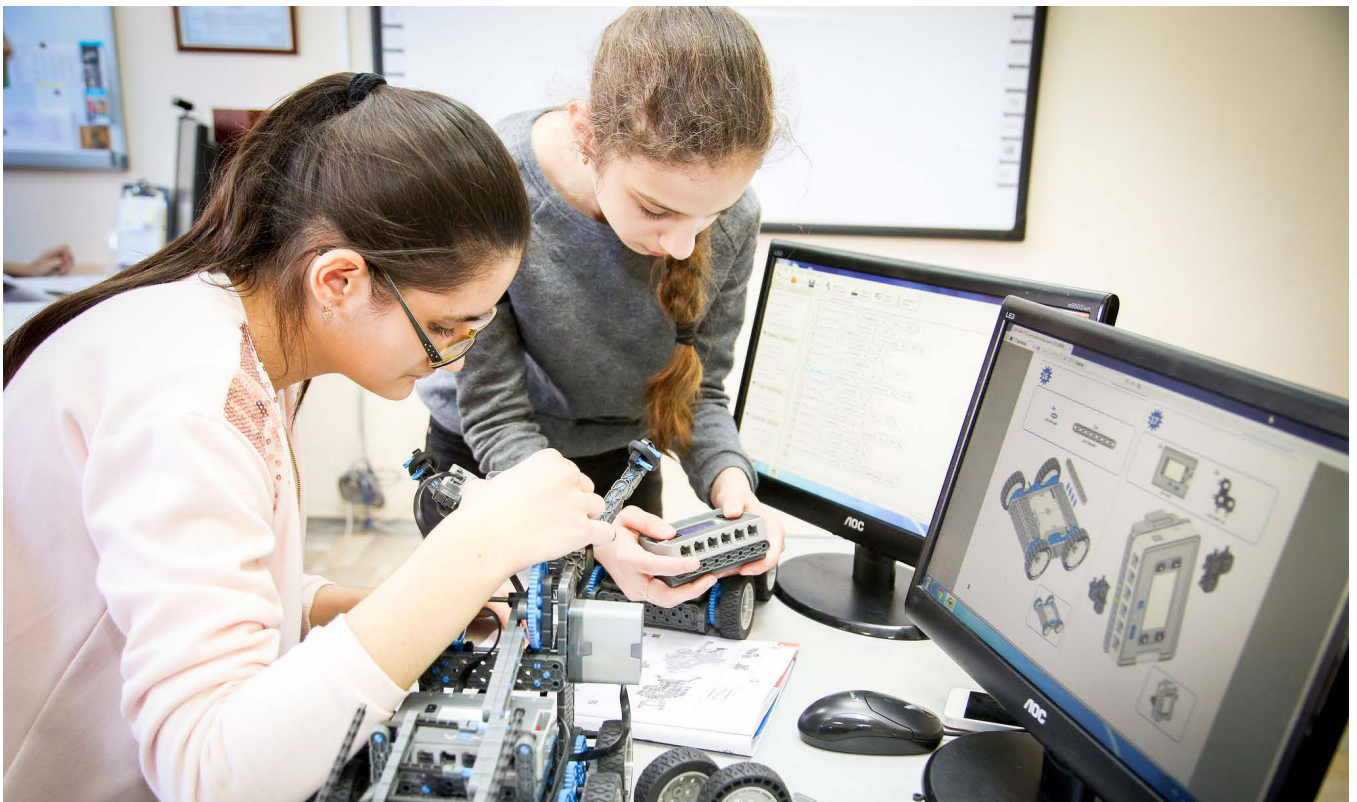


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Every year on 15 July, UNESCO-UNEVOC joins global celebrations to mark World Youth Skills Day (WYSD) and spread awareness about the importance of youth skills development. The aim of WYSD is to advocate for skills as an important factor to improve young people's transitions to decent work and to highlight the crucial role of skilled youth in addressing today's most challenging global issues. After all, there can be no inclusive development without youth empowerment in skills.

UNESCO-UNEVOC has been at the forefront of the global campaign to celebrate WYSD by mobilizing members of the UNEVOC Network to organize workshops, exhibitions and skills competitions in honour of the day. UNESCO-UNEVOC's main WYSD activities during the biennium included: a virtual conference on improving the image of TVET with more than 200 participants from over 60 countries, an 'Inspiring youth in TVET' story series, which saw submissions from all five regions of the UNEVOC Network, and the 'Skills in action' photo competition, with over 600 submissions shining a spotlight on how TVET is empowering young people in their communities. From 9 to 12 July 2019, UNESCO-UNEVOC co-organized an exhibition with other UNESCO entities at UN Headquarters in New York to highlight the positive impact of skills development on today's youth. The exhibition was titled 'Inspiring youth and improving perception for ski'lls'.

Find out more about WYSD at
<https://unevoc.unesco.org/wysd/>



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Entrepreneurship

The concept of entrepreneurship in education has evolved to embrace broader human competencies that are relevant to all levels of education and training.

The world is changing at an unprecedented pace, affecting the way we live, work and learn. To cope with the changing world of work and skills needs, TVET systems are increasingly aware of the importance of equipping young people with entrepreneurial skills and mindsets.

Entrepreneurial learning offers a realistic and achievable means to develop the transferable skills that society and the economy are demanding of citizens today. Fostering youth employment and entrepreneurship is one of the three thematic priorities under UNESCO's TVET Strategy (2016-2021) and the importance of entrepreneurial skills in equipping youth for employment is reflected in SDG 4, which highlights the need to strengthen 'skills for employment, decent jobs and entrepreneurship' through education and training.

In the face of evolving skills demands, TVET systems are investing in new learning pathways, setting-up innovative initiatives and programmes, and developing new partnerships. Responsive skills development programmes need to ensure not only the functional consistency with the demands from the world of work, but also the development of entrepreneurial skills and competencies that enable youth to respond to changing industry demands.

UNESCO-UNEVOC has coordinated a series of consultations on entrepreneurial learning in TVET with UNEVOC Centres and other partners from around the world, including at the UNESCO-UNEVOC TVET Learning Forum in May 2018.

These consultations aimed to explore the current state of entrepreneurial learning in TVET policies and programmes, and facilitated the exchange of experiences, opportunities and challenges to mainstreaming entrepreneurial learning in TVET systems. In November 2018, UNESCO-UNEVOC organized a two-week virtual conference on 'Entrepreneurial Learning in TVET', which was attended by 295 participants from 83 countries. Mainstreaming approaches from various countries were collected and compiled in a discussion paper that was published in 2019.

As the next step in the process, UNESCO-UNEVOC is developing a practical guide with selected experts from UNEVOC Centres that will support TVET actors in mainstreaming entrepreneurial learning at the institutional level, taking into account the different socio-economic contexts.

Find out more at
<https://unevoc.unesco.org/home/Youth+employment+and+entrepreneurship>

Greening TVET

Education and training are key to building greener societies by empowering people with the knowledge, skills and confidence they need to shape a more stable and peaceful future.

With skills at its core, Education for Sustainable Development (ESD) forms a crucial element of quality education and provides a framework for reorienting education and training at all levels towards sustainability. As a central issue today, sustainability touches upon all components of the 2030 Agenda for Sustainable Development, and SDG target 4.7 directly addresses ESD.

Published in 2017, UNESCO-UNEVOC's *Greening Technical and Vocational Education and Training: a Practical Guide for Institutions* has inspired UNEVOC Network members to embed sustainability in their day-to-day operations and learning processes, and over 30 TVET institutions have engaged in greening TVET approaches. The Greening TVET Guide also contributed directly to UNESCO's Global Action Programme on ESD (GAP on ESD) 2015-2019, specifically to area 2 on 'Transforming learning and training environments'. In line with this, UNESCO-UNEVOC promoted greening TVET with the broad aim of supporting institutional policies and capacities, transforming learning and training environments, and addressing the capacity needs of institutional leaders, teachers and trainers.

At the beginning of 2018, a UNEVOC virtual discussion moderated by the French Ministry of Ecological and Inclusive Transition clarified the roles of governments and the TVET

sector in setting up policy and a roadmap for adaptation of skills to the demands of the green economy and sustainable development.

In March 2019, UNESCO-UNEVOC co-organized a five-day workshop with the National Skill Development Corporation (NSDC) to discuss how to embed sustainability in curricula and training. The Greening TVET Guide also served as inspiration for a high-level breakfast meeting organized by the Permanent Delegation of Denmark to UNESCO at UNESCO's 40th General Conference in November 2019 to discuss strategic partnerships between TVET institutions and the private sector for greening TVET.

Greening TVET is an essential and urgent mission. Looking forward, UNESCO-UNEVOC remains committed to supporting TVET actors to develop the knowledge, skills, values and behaviours needed for sustainable development. Through its UNEVOC Network and engagement with relevant stakeholders, UNESCO-UNEVOC seeks to strengthen and implement the processes presented in the Greening TVET Guide. These activities will continue to strengthen UNESCO's work on ESD, specifically its new ESD strategy, which will be launched at the UNESCO World Conference on ESD in 2020.

Find out more at <https://unevoc.unesco.org/home/Greening+TVET>



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Inside UNESCO-UNEVOC



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Staff List

Soo-Hyang Choi
Director (from January 2020)

Shyamal Majumdar
Head of Office (until December 2019)

Assistant to the Director/Head

Lenny Martini (from November 2019)

Asheh Takeh (until August 2019)

Thematic Leaders

Kenneth Barrientos

Jens Liebe

Miki Nozawa

Programme Staff

Kamal Armanious (until August 2019)

Nickola Browne

Wouter de Regt

Ruairi Gough

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Zubair Shahid

BILT Project

Tristan Cole

Alexandra Filippova

i-hubs Project

Wilson Lima Júnior

Katarina Ormuz (until December 2019)

IT and Multimedia

Max Ehlers

Aldrich Mejia

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Caroline Bajer

Ulrike Krämer

Carolin Schaulandt

Experts on Loan

Pooja Gianchandani, *Programme Expert (GIZ)*

External consultants and experts

We would like to extend our sincere gratitude to the external consultants and experts who have shared with us their invaluable knowledge and experience. Without your input, UNESCO-UNEVOC would not be where it is today.

Interns and volunteers

Throughout the last biennium, we welcomed 16 interns, volunteers and trainees into the UNESCO-UNEVOC family. We are grateful for their hard work and happy to have shared valuable skills and experiences on this part of their professional journey.

2019

Isobel Aiken, Nathaly Zamalloa Farfan, Sabrina Ferraz Guarino, Annika Hornberger, Louise Lebichot, Morgan Skidmore, Melanie Gerster, Ayesha Sohail, Stefan Weitz, Yinglin Huang (Trainee)

2018

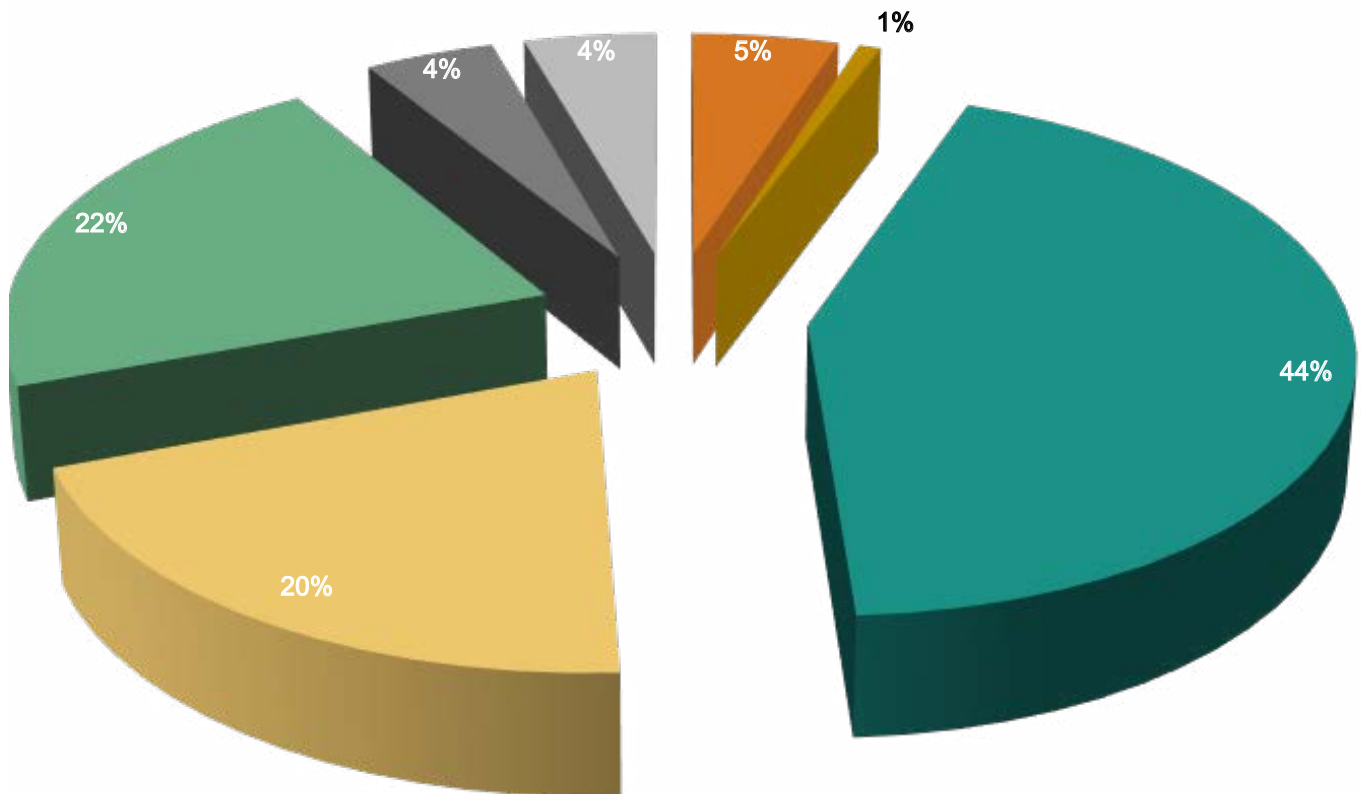
Susanna House, Maria Büdig, Leyla Gümüş, Lena Finken, Hyeonhan Kang, Hayoung Park



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Financial overview

This chart illustrates the main funding sources for UNESCO-UNEVOC during the period 2018-2019.



- UNESCO Regular Programme (2018-2019)
- FITOCA (2018-2019)
- FIT Germany BMBF
- FIT Germany BMZ
- FIT Germany BIBB (BILT March 2019 - December 2020)*
- UNESCO EU STEP (Comp. 3 - November 2017- February 2019)**
- UNESCO China FIT (Comp. 3 - 2018 - March 2020)**

* The amount includes the total funding received for the BILT project for the entire project duration (June 2019 - August 2020)

** Additional funds received from other budgetary sources/projects managed by UNESCO HQ and implemented in collaboration with UNESCO-UNEVOC

Brief history of UNESCO-UNEVOC

At the UNESCO General Conference in 1999, Member States passed a resolution to set up an international centre for TVET. The Government of Germany generously offered to host the UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training in Bonn, and the inauguration ceremony took place in April 2002.

Since then, the UN presence in Bonn has grown steadily from a handful of staff to what has become a UN family with more than 20 organizations and almost 1,000 staff members. UNESCO-UNEVOC, alongside all the UN agencies in Bonn, supports governments and societies in their efforts to achieve a sustainable future.

