





Development Goals

United Nations Educational, Scientific and Cultural Organization



Skills on the move:

global trends, local resonances

4 - 6 July 2017, International conference in Tangshan People's Republic of China

Progress review of Technical and Vocational Education and Training since the Third International Congress in Shanghai (2012)



Message from

Irina Bokova Director-General of UNESCO



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I am pleased to welcome you to the International Conference on Technical and Vocational Education and Training (TVET) 'Skills on the move: Global trends, local resonance'. This conference is the fruit of collaboration between UNESCO, the People's Republic of China and the German Federal Ministry of Education and Research (BMBF). It is organized in response to demands from policy-makers, the private sector, educators and other stakeholders for global dialogue, knowledge sharing and monitoring of achievements since the Third International Congress on TVET in Shanghai in 2012.

It is also a response to the increased attention devoted to technical and vocational skills development in the context of the 2030 Sustainable Development Agenda and Sustainable Development Goal (SDG) 4 on education. Education 2030 is a lifelong learning agenda; it considers all aspects of skills for work and life, specifically regarding access to affordable quality TVET; the acquisition of technical and vocational skills for employment, decent work and entrepreneurship; the elimination of gender disparity and ensuring access for vulnerable groups. TVET is expected to address multiple economic, social and environmental demands by equipping youth and adults with the skills they need for employment and global citizenship and by promoting equitable, inclusive and sustainable societies.

The attention that the Conference gives to the mobility of skills is timely. The world is in a period of accelerated change. The digitalisation of economies and societies promises to bring dividends, spur innovation, generate efficiencies and improve quality of services in a wide range of sustainable development areas, from agriculture to health, infrastructure, environment and education. The world of work is expressing new skills requirements: not only job-specific skills, but also creative, entrepreneurial and digital skills.

We live in a world where people and jobs are increasingly internationally mobile. While migration corresponds to increasing globalization, it also results from crisis and armed conflicts. Ensuring access to learning, protecting the right to education of migrants and refuges also involves recognizing their skills and qualifications.

In response to these changes and challenges, Member States must find innovative ways to anticipate the demand for skills, increase access and enhance quality in an inclusive an equitable manner. Besides employment and economic considerations, equity must remain an essential component of any skills development agenda. Ensuring that no one is left behind must remain at the heart of education and training policies and reforms.

I hope that the programme that is offered and the international experience that will be shared during the Conference will help UNESCO Member States in transforming their TVET systems to achieve SDG4 and more broadly, the 2030 Sustainable Development Agenda.

Message from

Yao Sun Vice Minister of Education, People's Republic of China



Working Together for a Higher-Quality Modern Vocational Education

In this beautiful blooming summer season, it's a great pleasure to have friends coming from afar to attend the 2017 International Conference on Technical and Vocational Education and Training. On behalf of the Ministry of Education of the People's Republic of China, I'd like to extend warmest welcome and sincere thanks to all the participants from home and abroad!

In the past few decades, the world has undergone great

changes featuring the continuous progress of information technology, constant deepening of globalization and rapid change of employment market, which exerted farreaching impacts on the economic and social development and presented opportunities and challenges to education. Face with the technological and industrial revolution, vocational education is entrusted with a greater mission. Thanks to the efforts of UNESCO, countries have been working together to advance the tasks set out in Shanghai Consensus immediately after the conclusion of the Third International Congress on Technical and Vocational Education and Training in 2012. As a result, significant progress has been made in the multilateral cooperation on TVET, the enhancement of skills for all and in particular for the youth, the promotion of openness, cooperation, inclusiveness and equity, the improvement of the quality TVET, and the promotion of sustainable development.

The Chinese government has been committed to prioritize the development of TVET, focusing on reform and opening-up, efficiency increase, shared growth through collaboration and building modern vocational education. Since the Third International Congress on Technical and Vocational Education and Training, China has been implementing the policy outcomes proactively which has led to important progress in vocational education with a historic breakthrough. In 2014 in particular, the Chinese government held the National Conference on Vocational Education and issued Decision on Accelerating the Development of Modern Vocational Education, which specifies the targets, plan, tasks, schedule and roadmap for the modernization of vocational education by 2020. So far, China has the largest scale of vocational education worldwide. A new path, with Chinese characteristics, to the development of TVET has been found, which features: strengthened human resource development, featured school-running, improved system and mechanism, better development environment and expanded international cooperation and exchange. The ideas, model and achievements of China's vocational education constitute a crucial case of promoting vocational education in developing countries.

The Conference is the first mid-term event held between two congresses which provides a new opportunity for us to enhance understanding, expand opening-up and deepen cooperation. By practicing the ideas of innovation, coordination, green, opening and sharing, and contributing to modernization with no efforts spared, China's vocational education is embracing an unprecedented golden era. In the process, China is willing to share its experience and success in reform with the rest of the world so as to jointly contribute to the quality vocational education development worldwide.

It is our belief that with the concerted efforts of all the participants of the conference, the Shanghai Consensus will be further implemented together with fruitful discussions and positive outcomes around the theme "Skills on the move: Global trends, local resonances". I'm convinced that, with the leading role play of UNESCO and the joint efforts of the member states, this International Conference is bound to make new progress in skills development, standards alignment, multilateral participation and cooperation on teaching and scientific research. I look forward to a regular policy dialogue and exchange among all countries with a view to develop a higher-quality vocational education, accelerate the modernization of TVET and make even greater contribute to the sustainable development of the mankind.

I wish a brighter future for the technical and vocational education worldwide and for all the nations!

Message from

Kornelia Haugg

Director-General, Vocational Training and Lifelong Learning Division, German Federal Ministry of Education and Research (BMBF)



Technical and vocational education and training (TVET) has become a globally acknowledged key factor for social participation, competitiveness, social peace, prosperity and high rates of employment. Germany supports the strengthening of cooperative and job-related elements of the TVET systems in partner states. These elements – and workplace-based learning in particular – feature prominently as recommendations in the 2012 UNESCO-UNEVOC Shanghai Consensus on TVET.

Global competition is leading to ever shorter innovation cycles and new forms of work organization. This will require systematic and participatory development of corporate organization and the corresponding training

of skilled workers. Demand for well-trained skilled staff is growing worldwide. Skilled labour is key to securing sustainable economic growth.

There is enormous pressure for reform in states whose vocational training systems are based largely on full-time schooling. Employers in these countries criticize school-based training as lacking in practical relevance and also lament the lack of staff with practical experience and skills. At the same time, many young people are not gaining access to the labour market and remain without any prospects for the future. High rates of youth unemployment in many countries are jeopardizing the social peace. Youth employment and investments in young skilled staff are key factors for growth.

I therefore consider the following goals to be particularly important in international cooperation on TVET:

- Youth employment through a strengthening of in-company training elements
- A training policy dialogue among key stakeholders to strengthen international vocational training research
- Implementation of inclusive and holistic approaches to technical and vocational education and training in countries where it can drive growth and employment, and among others, lead to more stability.

The "Skills on the move" follow-up to the Shanghai Consensus will help deliver on all the points I have mentioned. The same is true for the UNEVOC International Centre whose network supports the development of cooperative TVET systems worldwide, promotes international exchanges and supports the implementation of the crucial SDG4 targets. Without a doubt, it is a most laudable expression of sustainability that China as host country is keeping the discussion alive on these important issues in international vocational training five years after Shanghai by providing experts from many different countries with a forum for exchange.

Introduction

In 2012, the global Technical and Vocational Education and Training (TVET) community met in Shanghai to debate current trends and future drivers of TVET development. This global dialogue resulted in the Shanghai Consensus¹. The Shanghai Consensus, provides a vision to connect the analysis of TVET systems with intended development outcomes, and recommendations for TVET systems' reform as well as policy development. The key message was that TVET systems need significant transformation and revitalization if TVET were to realize its enormous potential as a contributor to employment and sustainable development.

A progress review is an excellent and timely opportunity to analyze how TVET has developed and changed since the Shanghai Congress and the adoption of the Sustainable Development Goals (SDGs). On this basis, such review could point to the main challenges and opportunities that the sector faces today. The review will be conducted from several perspectives and will link TVET with SDGs and changes in the labour markets:

Ş	SDG4 on Education emphasises equity and quality. How is the TVET sector contributing to SDG4, including in its contribution to lifelong learning opportunities for all? What is its position within national education policies and plans?
	SDG8 calls for inclusive economic growth, employment and decent work. To what extent does TVET contribute to employment and entrepreuneurship, in particular for youth? How can TVET effectively contribute to women's employment and empowerement?
	Beyond SDG4 and SDG8, TVET can contribute to many other priority areas, notably SDG13 on combatting climate change. How is the Paris Agreement, adopted at the COP21, impacting TVET? What initiatives have been launched and what has their impact been?
	Digital technologies are spreading rapidly and transforming the way people live and work. SDG9 seeks to foster innovation, in which the digital sector may play an important role in the future. What are the implications of the digitization of the economy on skills, qualifications and TVET offerings and delivery?

¹ See: http://unesdoc.unesco.org/images/0021/002176/217683e.pdf

Progress in TVET since the Shanghai Congress

Since the Shanghai Congress of 2012, TVET has been gathering momentum and global attention. Education 2030 devotes considerable attention to technical and vocational skills development, with three of the seven targets of its Framework for Action directly referring to TVET (covering questions such as the access to affordable quality TVET; the acquisition of technical and vocational skills for employment, decent work and entrepreneurship; and the elimination of gender disparity as well as the effort to ensure access to TVET for the vulnerable).

In this context, TVET is expected to address multiple demands of an economic, social and environmental nature by helping youth and adults develop the skills they need for employment, decent work and entrepreneurship, promoting equitable, inclusive and sustainable economic growth, and supporting transitions to green economies and environmental sustainability.

TVET is also featuring highly in the Development Strategies adopted within the framework of regional communities. An illustration thereof is the adoption by the African Union Heads of States of the Continental Education Strategy for Africa (CESA 2016-2025) as the framework for the development of a transformative education and training system in Africa. This framework further reinforces the importance of TVET.



The Shanghai Consensus informed the mid-term review of UNESCO's Strategy for TVET (2010-2015). In response to the invitation made by the Shanghai Consensus to the Director-General of UNESCO, the Organization developed a new Strategy for TVET (2016-2021), and the vision and policy areas of the Shanghai Consensus also helped to inspire the revision and drafting of the Recommendation concerning Technical and Vocational Education and Training (2015). The Recommendation acts as a reference point for the implementation of Education 2030.

Factors shaping the TVET landscape

Several contextual factors are critical in driving the development of TVET, including a shift in the development paradigm towards sustainable development, demography, economic trends, labour market changes and migration patterns. The future of work features highly in the agenda of governments, international and regional organisations (including ILO¹, OECD² and the European Commission³).

For TVET, the stakes are high. TVET systems are valued for their links with the fast-changing demands of the labour market and world of work. A set of new skills is emerging including digital, entrepreneurial, green and innovation skills. Real time data and data analytics have the potential to complement traditional labour market information systems with a timely monitoring of changing demands for skills and jobs. New forms of certification including digital credentials and open and online badges now recognize and validate learning outcomes, including non-formal and informal learning.

The timeliness with which TVET systems transform and respond to the above-mentioned trends, will result in these systems either being highly appreciated by individuals, enterprises and society at large or, will contribute to deepening the negative perception of TVET, compared to general secondary education and academic tertiary education programmes.

At the same time, the boundaries of TVET are increasingly framed within a lifelong learning perspective. More than 120 countries are reforming their qualifications systems, developing overarching qualifications frameworks, supporting the use of learning outcomes, building learning pathways and setting up 'validation of prior learning' schemes. The increasing importance of TVET in tertiary education and the important role played by on-line, in-service and professional development, adds to this complexity and makes international cooperation a necessity for monitoring the SDGs and COP21 agendas and promoting policy learning and experience sharing among all Member States.

¹ See: http://www.ilo.org/global/topics/future-of-work/lang--en/index.htm

² See: <u>http://www.oecd.org/employment/future-of-work.htm</u>

³ See: <u>https://ec.europa.eu/epsc/sites/epsc/files/strategic_note_issue_13.pdf</u>

Objectives of the Conference

The Conference is designed to take stock of progress and challenges since the Third International Congress on TVET in Shanghai in 2012and identify promising policies and practices to enhance TVET's contribution to SDG 4 and more broadly to sustainable development.

Areas of discussion

The Conference will focus on a number of areas linked to global trends and UNESCO's Strategy for TVET, including:

- Youth employment and entrepreneurship;
- The role of skills in combatting inequity and gender inequality;
- Skills' needs in increasingly digitized and green economies and societies;
- Anticipation of skills demands and addressing mismatch between supply and demand;
- Learner and worker mobility and the role of skills and qualifications recognition;
- Monitoring and evaluating the impact of TVET strategies and programmes.

Structure of the Conference

The Conference will feature plenary and parallel sessions. The plenaries will bring together TVET stakeholders to review progress since the Shanghai Conference and identify challenges and areas for future initiatives around key policy areas (Sustainable Development, Employment and Entrepreneurship, Equity and Gender Equality and Mobility issues). The parallel sessions will allow participants to deepen the discussion by exploring major TVET reforms, mapping the skills landscape with an emphasis on digital, entrepreneurial, green, and creativity and innovation skills and examining questions of governance, financing, and relevance. A session will be dedicated to discovering specific aspects of the TVET system in the host country, China. This exposure will be further enriched with visits

to TVET institutions as part of the post-conference programme.

Partner mobilisation

The Conference will be co-organized by UNESCO, the Government of the People's Republic of China and the German Federal Ministry of Education and Research (BMBF). UNESCO will mobilise its Member States and partners, including the Inter-Agency Group on TVET members and its networks (UNEVOC Network, UNESCO Chairs and UNITWINS, etc.).

Conference Programme

Tangshan Southlake Convention and Exhibition Centre

Intersection of Xueyuan Road and Yiwen Road, Lunan District, 063000 Tangshan, Hebei, People's Republic of China

Monday, 3 July

13:00 - 17:00 Registration Venue: Pullman Tangshan Hotel

Tuesday, 4 July

09:00 - 09:30 **OPENING CEREMONY (EN/FR/CH)** Venue: Fenghuang Hall (Ground Floor)

Moderator: Mr Yue Du, Secretary-General of the National Commission of the People's Republic of China for UNESCO

Welcome remarks by Mr Xiufeng Ding, Mayor of the Tangshan Municipal Government

Speech by H. E. Mr Stanley Mutumba Simataa, President of the 38th session of the General Conference of UNESCO

Speech by Mr Jianpei Xu, Vice Governor of the Hebei Provincial Government

Speech by *Mr Jens Hofmann*, Head of the Education and Science Unit, Embassy of the Federal Republic of Germany in the People's Republic of China

Speech by H. E. Mr Yao Sun, Vice Minister of Education, People's Republic of China

09:30 - 10:30 PLENARY I: The role of skills in sustainable development (EN/FR/CH) Venue: Fenghuang Hall (Ground Floor)

Skills development has emerged as an urgent policy issue, as part of a broader concern for youth unemployment and welfare. Skills deficits contribute to large-scale youth un- and underemployment which is undermining societies and threatening the stability of countries whose youth population is still increasing rapidly.

The international community has set an ambitious 2030 Agenda for Sustainable Development, which includes 17 Sustainable Development Goals (SDG) and 169 targets. Achieving the transition towards the development model outlined by the agenda will require, among other things, a major effort to equip the world population with a broad range of skills including vocational, transferable 21st-century skills, digital, entrepreneurial and global citizenship skills. Vocational skills constitute important components of SDG4, particularly in the education targets related to access to affordable quality TVET (4.3); the acquisition of technical and vocational skills for employment, decent work and entrepreneurship (4.4); the elimination of gender disparity and ensuring access for vulnerable groups (4.5). The challenge now is to move to action and ensure close monitoring and evaluation of progress.

This session will open the conference by reflecting on the role of skills in the sustainable development agenda, with the perspective of the host country, the People's Republic of China, and of two international organizations active in the field of skills development, namely UNESCO, co-convener of the conference, and the OECD.

Key questions:

- What are the main initiatives taken by countries to foster skills development in the perspective of the 2030 Agenda?
- How do we build skills that foster employability in a fast changing and increasingly digital world?
- How can skills be defined and measured in a cross-country comparable perspective? What is needed to achieve this objective?
- What role can international cooperation play in implementing and monitoring the skills agenda of Education 2030?

Chair: H.E. Ms Barbara Asher Ayisi, MP Deputy Minister of Education, The Republic of Ghana

Panellists:

The 2030 agenda: A national skills' perspective

Mr Jiping Wang, Director-General of Department of Vocational and Adult Education, Ministry of Education, The People's Republic of China

Shaping, valuing and informing the skills agenda: the role of international cooperation *Mr David Atchoarena*, Director, Division for Policies and Lifelong Learning Systems, Education Sector, UNESCO

The case for 21st century skills

Mr Andreas Schleicher, Director for the Directorate of Education and Skills, Organisation for Economic Cooperation and Development (OECD)

10:30- 11:00 **Tea/Coffee break**

11:00 - 12:30 **PLENARY II: Skills for youth employment and entrepreneurship (EN/FR/CH)** Venue: Fenghuang Hall (Ground Floor)

Rising youth unemployment is one of the most significant problems facing economies and societies in today's world, for developed and developing countries alike. Many structural problems continue to hinder efforts to reduce youth unemployment. Under-employment and vulnerable jobs are common, with poor protections for young workers; meanwhile an enduring disconnect persists between available skills and the requirements of a rapidly changing labour market.

Technical and Vocational Education and Training (TVET), innovation and entrepreneurial culture must also play a role, as well as strong cooperation between employers, educational institutions, and employment services. Such mechanisms provide a strong basis that support the creation of conditions conducive to inclusive growth, employment and decent work as defined by SDG8. Fostering youth employment and entrepreneurship is one of the three priority areas of the UNESCO Strategy for TVET (2016-2021).

This session offers an opportunity to engage with the challenges underpinning youth unemployment and identify viable solutions to boost youth employment. The session will also discuss the ways in which employers and employment services can support young people to fulfil their professional potential to develop innovative strategies for promoting entrepreneurship and equipping young people with the relevant skills to flourish within the current labour market. The session presents cases on how skills development has addressed the challenges of youth employment and the starting up of businesses in the labour market in various contexts.

Key questions:

- What are countries doing to equip youth with skills required by employers and for self-employment needs in the labour market?
- What can employers do to reinforce youth skills and employability?
- How do we effectively support the transition from school to work?
- What kind of systems are in place to support future entrepreneurs?

Chair: Ms Absatou Daddy, Technical Advisor to the Minister, Ministry of Technical and Professional Education, The Republic of Niger

Panellists:

H.E. Ms Gale T.C. Rigobert, Minister for Education, Saint Lucia

H.E. Mr Yaw Osei Adutwum, Deputy Minister for STEM and TVET, Republic of Ghana

H.E. Mr Ahmed Elgeushey Hassaneen, Deputy Minister for TVET, Republic of Egypt

12:30 - 14:00 Lunch	
14:00 - 16:00 PARALLEL SESSIONS (EN/FR/CH) SESSION 1: Anticipating skills' demand and leveraging data for decision-making Venue: Fenghuang Hall (Ground Floor)	SESSION 2: Improving governance and enhancing partnerships Venue: Chaoyang Hall (Third Floor)
In a context of globalization, digitization and automation, the skills in demand in specific sectors or countries have been changing rapidly. In this context, many skills will become obsolete while others will have to be adapted and new skills needs will emerge. Education and training systems, as well as the world of work, are thus facing an unprecedented challenge. Skills anticipation and forecasting helps identify job prospects and provides reliable information for transparent and effective decision-making for workforce development and planning. The Shanghai Consensus, adopted at the Third International Congress on TVET (2012), recommends that statistical frameworks and data platforms for TVET and skills development be developed, building on the existing initiatives on data and indicators conducted by various stakeholders. In addition to collecting and analyzing traditional education and labour market data, a number of new initiatives are emerging. Real time data and data analytics have the potential to complement traditional labour market information systems with a timely monitoring of changing demands for skills and jobs.	TVET and skills development governance is often fragmented and weakly coordinated among stakeholders intervening in this field. Countries often lack the appropriate tools and models to develop inter-ministerial coordination and increase the involvement of private sector and civil society representatives, who are traditionally underrepresented players. Strengthening transformation of TVET systems also requires that economic operators increase their contribution to the skills development effort through appropriate regulatory frameworks and settings, including expansion of work-based learning, but also through the adoption of effective and transparent funding mechanisms. This session aims to explore significant examples of skills governance models inclusive of employers, workers unions and youth representatives. It examines effective approach for TVET coordination. <i>Key questions:</i>
This session will present international, regional and national cases on how relevant data and information have been collected, analysed and used for decision-making on skills development for employment. Presenting current initiatives and results of skills forecasting exercises and use of various types of data, this	 What are the conditions for involving non- ministerial stakeholders such as youth organization in TVET governance? How do we foster and frame a widened governance of TVET including social partners and civil society?

session aims to offer broad trends of changes in skills needs and future challenges for industries and economic sectors in various regions of the world. Also, implications to international, regional and national monitoring of the progress of the Sustainable Development Goals will be discussed.

Key questions:

- What are the challenges that skills systems face in terms of available information and how to better anticipate and assess the demand for skills?
- How have the labour market intelligence and education and training data been used for decisionmaking on skills development for employment?
- How does labour market anticipation and forecasting support the work of the observatory of the labour markets?
- How have relevant big data and real-time data been used for decision-making on skills development for employment?

Chair: **H.E. Mr M. Boakai Jaleiba, Jr.**, Assistant Minister for Technical Vocational Education and Training, Ministry of Youth and Sport, The Republic of Liberia

Panellists:

Mr Fakher Zaibi, Director, National Observatory of Employment and Qualifications, Ministry of Professional Training and Employment, Tunisia

Ms Anastasia Fetsi, Head of Operations Department, European Training Foundation (ETF)

Mr Gyu-hee Hwang, Senior Researcher, Korea Research Institute for Vocational Education & Training (KRIVET)

Mr Michael Kalinowski, Expert, Federal Institute of Vocational Training (BIBB), Germany

16:00 - 16:30 Tea/Coffee break 16:30- 18:00 PARALLEL SESSIONS (EN/FR/CH)

SESSION 1: Greening Skills: TVET for sustainability Venue: Fenghuang Hall (Ground Floor)

Skills needs are dynamic and closely dependent on technological, social and environmental change. Scarcity of resources is changing the nature of work and skills demand is evolving in the perspective of greener and more sustainable societies. Countries therefore need to set context-specific approaches and priorities for skills development to ensure a sustainable development path so that all young people and adults, including vulnerable ones, can acquire the skills needed by such transformation.

New tools, methodologies and mechanisms are emerging to anticipate, deliver and monitor skills needed by this transition to the greener economies and change of consumption patterns, but also the appropriate capacities to operate them so that it contributes to strengthened TVET systems at policy, oversight and delivery levels in various contexts.

This session aims to shed light on three strands of work leading to build the capacity to identify the needs, deliver and assess green skills. The speakers will provide concrete examples of interventions of successful research and mainstreaming of green skills in TVET programmes. How does the adoption of inter-ministerial coordination mechanisms such as Prime Minister's Advisory Council (PMAC) assist in the achievement of TVET and Skills Development policy objectives?

Chair: Ms Marcia Rowe Amonde, UNEVOC Network Cluster Coordinator for the Caribbean, HEART Trust NTA, Jamaica

Panellists:

Mr Hamid Ahmad, Chairman of the National TVET Supreme Coordination Committee, Prime Minister's Advisory Council (PMAC), Republic of Iraq

Ms Zinab Bendimiya, NET-MED Youth Representative, MENA Policy Hub

Mr Matthias Anbuhl, Director for Vocational Education Policies, German Unions Federation

SESSION 2: Charting new territories for TVET Venue: Chaoyang Hall (Third Floor)

The rapid socio-economic, demographic and technological changes taking place across the globe today have major implications for the future of skills and TVET systems. Digital technologies are spreading rapidly and transforming the way people live and work. New types of skills are emerging and becoming increasingly necessary in a whole range of occupations, including digital, entrepreneurial, green and innovation skills, while other skills are becoming obsolete.

Caused by factors internal to the education and training system as well as by external pressures linked to demographic, technological and economic changes, TVET systems are changing. This is reflected in reforms taking place in many countries that support the development of national and regional qualifications frameworks based on learning outcomes, and establishing new learning pathways that enable learners and workers to progress across the general, higher and technical and vocational education systems and the world of work. TVET systems need to respond to these trends, if they are to remain relevant and respond to the changing needs of individuals, the labour market and society at large.

Key questions:

- What solutions exist to anticipate and identify green skills demand?
- How qualification and curricula are changing to integrate green skills?
- What successful initiatives exist from publicprivate partnerships in addressing green skills needs?
- How do we develop the capacities of TVET institutions in the transition to greener TVET?

Chair: Mr Raimo Naanda, Deputy Permanent Secretary, Ministry of Higher Education, Training and Innovation, The Republic of Namibia

Panellists:

Ms Eureta Rosenberg, Rhodes University, Chair of Environment and Sustainability Education, South Africa

Ms Nathalie Tessier, Head of the TVET Department, Ministry of Environmental and Solidary Transition, France

Ms Marie-Josée Fortin, Director, Latin America & Francophone/Lusophone Africa, Colleges and Institutes Canada

Mr Shyamal Majumdar, Head of the UNESCO-UNEVOC International Centre for TVET

This session will discuss the changing needs of economies and societies and implications on TVET. It will look at the way education and training systems are responding to these changes and the implications in terms of diversification of learning pathways, institutions and programmes.

Key questions:

- What is the role of employers in shaping new TVET systems?
- What are the challenges and promising examples in developing new learning pathways articulating TVET and Higher Education?
- What is the future of learning in response to the demand of new skills? How do we maximise the use of workplace?

Chair: Ms Amina Idris, Director, National Board for Technical Education, UNEVOC Centre Coordinator and Cluster Coordinator for West Africa

Panellists:

Mr Young-bum Park, President, Human Resources Development Service of Korea

Ms Britta Buschfeld, Director of Vocational Training, German Chamber of Commerce in Shanghai, China

Mr Yichun Yao, CEO of Caofeidian Vocational City

Ms Katerina Ananiadou, Programme Specialist, Section of Youth, Literacy and Skills Development, UNESCO

19:00 - 21:00 **Reception and Dinner** Venue: Splendor Room at the Pullman Hotel (Ground Floor)

Wednesday, 5 July

09:00 - 10:30 **PLENARY III: Skills for equity and gender equality (EN/FR/CH)** Venue: Fenghuang Hall (Ground Floor)

Changes in the demand for skills across the world, driven by technological change, globalization and organizational changes, have in many cases resulted in increased inequalities between men and women, young and old, urban and rural dwellers or among people from different ethnic backgrounds.

Promoting equity and gender equality is therefore one of the three priority areas of the UNESCO Strategy for TVET (2016-2021) as one way of addressing these inequalities is by providing up- or reskilling opportunities to people so that they can obtain decent work and engage in further learning. The UNESCO Recommendation concerning TVET (2015) urges Member States to 'promote equal access and participation of females and males in quality TVET' and to 'make TVET more accessible to all disadvantaged and vulnerable groups, including marginalized rural and remote populations'.

The aim of this session is to discuss some of the questions related to equity and gender equality and the policy measures that can successfully address them.

Key questions:

- What should be the key elements of skills development policies or programmes that can successfully address inequalities?
- How do we effectively address particular communities or group skill needs (e.g. rural communities, women and girls)?
- What is the role of employers in addressing inequalities?
- How can the skills and employment needs of disabled persons be addressed in a fast changing labour market?

Chair: **Mr Rupert Maclean,** UNESCO Chair on Technical and Vocational Training and Sustainable Development, College of the North Atlantic-Qatar

Panellists:

Ms Tanja Nackmayr, Director of the Education and Labor Policy Department, Confederation of Employers' and Business Associations in NRW, Germany

Mr Jin Yang, Director-General of the Central Institute for Vocational and Technical Education, Ministry of Education, People's Republic of China

Ms Meenu Vadera, Member of the Executive Council of Asia South Pacific Association for Basic and Adult Education, Head of the Azad Foundation

Mr Théodore Rakotoarimino, Director General of the TVET Department, Ministry for Employment and TVET, Madagascar

Mr Edgar Pereira, Professional Training Coordinator, CERCICA, Portugal

10:30 - 11:00 **Tea/Coffee break**

11:00 - 12:30 **PLENARY IV: Skills for mobility: Strengthening the recognition of skills and qualifications (EN/FR/CH)** Venue: Fenghuang Hall (Ground Floor)

Since the Shanghai Congress in 2012, there is clearly an increase in the development of national qualifications frameworks (NQFs) worldwide including national, regional and transnational ones. Given the need for high quality qualifications, emphasis has been placed on quality assurance of qualifications mechanisms. Countries are also increasingly adopting mechanisms for the recognition and validation of non-formal and informal learning, and in order to strengthen learning pathways across education and training sub-sectors. In addition, new forms of certification, including digital credentials and open and online badges, now recognize and validate learning outcomes.

We live in a world where people and jobs are increasingly internationally mobile. While migration corresponds to increasing globalization, it also results from crisis and armed conflicts. Besides ensuring access to learning, protecting the right to education of migrants and refugees also involves recognizing their skills and qualifications.

The session will discuss progress internationally with specific focus on South Africa and Europe. The session will present measures taken by countries in recognizing the skills and qualifications of refugees and migrants. It will also present recent trends in certifications and the growing importance of digital credentials.

Key questions:

- What are the lessons learned from the implementation of NQFs in different regions?
- Why does adapting qualifications and developing pathways matter? What are the difficulties in achieving this objective?
- What are the measures in place to understand and recognise the skills of migrants and refugees?
- How are digital credentials disrupting the certifications landscape?

Chair: Ms Brigitte Trocmé, Associate Vice Director for High School and Lifelong Learning, Ministry of National Education, France

Panellists:

Mr Joe Samuels, Chief Executive Officer, South African Qualification Authority (SAQA)

Mr Loukas Zahilas, Head, Department for VET Systems and Institutions, European Centre for the Development of Vocational Training (Cedefop)

Mr Oliver Diehl, Assistant Head of Division, TVET Policy, Federal Ministry of Education and Research, Germany

Mr Borhene Chakroun, Chief of the Section of Youth, Literacy and Skills Development, UNESCO

12:30 - 14:00 Lunch	
14:00 - 16:00 PARALLEL SESSIONS (EN/FR/CH)	
SESSION 1: Fostering creativity and innovation skills Venue: Fenghuang Hall (Ground Floor)	SESSION 2: Enhancing Entrepreneurship skills Venue: Chaoyang Hall (Third Floor)
TVET systems are valued for their links with the fast- changing demands of the labour market and the world of work. A set of new skills is emerging including digital and innovation skills. The timeliness with which TVET systems transform and respond to the above-mentioned trends will result in these systems either being highly appreciated by individuals, enterprises and society or perpetuate the lack of attractiveness of TVET systems. Creativity and innovation skills, as well as digitization, are	The 21st century economies and societies are requiring a more flexible and innovative individuals which are capable of meeting the challenges of sustainable development. The complex and fast changing economic environment calls for more innovative workers who have a high level of adaptability, including skills and knowledge to create self-employment, especially in contexts of low job creation. Besides foundation and vocational skills, youth are better equipped to enter the world of work with entrepreneurship skills.
key drivers behind economic and social change, profoundly transforming economy, industries and society. After debating emerging trends in creativity and innovation skills required by enterprises and the labour market, the session will examine how various job profiles have been affected by the introduction of digital, creative and/or innovative	Mainstreaming entrepreneurial learning in skills development systems and creating an entrepreneurial continuum encompass various frameworks and arrangements at governance, TVET institution and enterprise levels. This includes revamping curricula and

skills. The session will debate how education and training systems have or have not met rapidly changing digital skill needs, while discussing the value of new opportunities made possible by digital, creative and/or innovative technologies in reshaping education and training delivery.

The session will start with an example of how industry is changing towards more innovation and creativity in the workplace. It will also help identify the set of skills required to navigate the changing and increasingly digitizing world of work. The session will then present measures taken by countries in introducing and mainstreaming innovation skills.

Key questions:

- What are the kinds of skill demands required in a digitalized economy and society? How might these changes in demand translate into qualifications, curriculum reform, and teacher training? What drives creativity and innovation in the economy?
- What strategies are adopted to make industries more creative? What kind of creative and innovation skills (including digital skills) do employers and the labour market demand?
- What are the examples of mainstream innovation and creative skills in Kenya (smart class-room, etc.)? How are programmes and pedagogies changing? What are the implications on TVET teacher training?
- How do we prepare TVET teachers for mainstream innovation skills? What industry experience is required?

Chair: Mr Cesare Onestini, Incoming Director, European Training Foundation (ETF)

Panellists:

Mr Dieter Dohmen, Managing Director, Forschung und Beratung, Forschungsinstitut fuer Bildungs- und Sozialoekonomie (FiBS), Germany

Mr Hernán Araneda, Director, Center of Innovation for Human Capital, Fundación Chile

Mr Abdi Kirwa Tiony, UNEVOC Centre Coordinator, Head of Department, Rift Valley Technical Training Institute, Kenya

redefining pathways, reinforcing teachers and trainers' capacities, creating entrepreneurial environment and incubators, building partnerships with industries and offering more work-based learning.

The session will examine international and regional experiences in introducing, mainstreaming and recognizing entrepreneurship skills in TVET and creating entrepreneurial continuum. It will also discuss the impact of entrepreneurship skills on employment and job creation, and the role of business and the industry in the promoting and implementing of entrepreneurship skills in schools and TVET institutions. The session will also focus on available mechanisms that measure skills in a cross-country comparable perspective.

Key questions:

- What are the successful practices in building entrepreneurial continuum?
- What is the evidence of the impact of entrepreneurship skills on employment and job creation?
- How do we define and measure skills in a crosscountry comparable perspective?
- How do we build entrepreneurial communities? What role can stakeholders play, especially businesses and the industry, in promoting and implementing entrepreneurship opportunities?

Chair: Ms Olga Oleynikova, Director, National Observatory on Vocational Education (Centre for VET Studies), Russian Federation

Panellists:

Mr Siri Roland Xavier, Member of the board of the Global Entrepreneurship Monitor (GEM)

Ms Carla Marangoni de Bona, World Skills Champion, Graphic Designer and Professor, Brazil

Mr Luis Fernando Cateura, UNEVOC Network Cluster Coordinator for the Latin America, Fundacion Paraguaya, Paraguay

16:00 - 16:30 Tea/Coffee break

 16:30 - 17:30
 PLENARY V: TVET in China: Development and Challenges (EN/FR/CH)

 Venue: Fenghuang Hall (Ground Floor)

Chair: Mr Rui Ning, Deputy Director, Division of General Policy, Department of Vocational and Adult Education, Ministry of Education, The People's Republic of China

Panellists:

Making new contribution to the implementation of the Shanghai Consensus *Ms Wei Zhou,* Deputy Director-General, Department of Vocational and Adult Education, Ministry of Education, The People's Republic of China

The role of civil society in the development of TVET *Mr Hua Su*, Vice President of China Vocational Education Association

TVET: vital force for poverty alleviation

Mr Haiming Jia, Deputy Director-General, Hebei Provincial Department of Education

Rebuilding Craftsmanship in China

Mr Bernd Seuling, Resident Representative Shanghai, Hanns Seidel Foundation

TVET in service of national strategies

Mr Kai Song, Deputy Director, China Nonferrous Metals Industry Talent Center

"Confucius Institute" on TVET—Luban Workshop

Mr Yi Shen, Vice President, Tianjin Bohai Vocational Technical College

17:30 - 18:30	Adoption of the Conference Statement and Way forward Venue: Fenghuang Hall (Ground Floor)

General Reporting Adoption of the Statement Concluding Remarks

19:30 - 21:00 Cultural Activities Venue: Tangshan Great Theatre

Thursday, 6 July

08:00 - 11:35 Visits in Caofeidian

Beijing Caofeidian International Vocational Education City

Jointly invested and built by Pocy Group and Tangshan Caofeidian Development Investment Group Corporation, Beijing Caofeidian International Vocational Education City is situated at the center of the master-planned Tangshan Bay Eco-city. It covers an area of 197,000 km2, costs 38 billion yuan in total and will take 6 years to be completed. It plans to introduce educational resources both home and abroad and thereon creates 17 internationalized vocational institutions among which Tangshan Experimental Vocational School and Caofeidian College of Technology have been operational and initiated admission process. Through integrating schools with enterprises, education with city and industry with city, the City is expected to cluster 200,000 people and serve as the educational zone of Caofeidian. When completely built, it will become a national hub in supplying skilled workers and be further forged as the Chinese Craftsman Valley.

Tangshan Polytechnic College

Tangshan Polytechnic College is a higher education institute and a model polytechnic college in China. It aims to train highly skilled technicians who are awarded both junior college diploma and advanced vocational qualification at graduation. The College covers an area of 110 hectares, with a built-up area of 500,000 m2 and total asset of 110 million yuan. With a faulty of 595 and over 7000 enrolled students, it is organized into 7 departments (automation engineering, automotive engineering, management engineering, mechanical engineering, preschool education, construction chemicals, arts and media) that offer 61 majors.

Ore wharf of Caofeidian Port

Caofeidian Ore Terminal, as a part of Ceofeidian Port, is invested and built by Tangshan Caofeidian Shiye Port Corporation. Located within the port area, the Ore Terminal extends along the deep oceanic trough of Bohai Bay, approximately 38 nautical mile west of Tianjin Port, 92 nautical mile northeast of Qinhuangdao Port and 33 nautical mile away from Jingtang Port. Once completed, the apron of the Terminal can reach 25 meters below sea level without being dredged, which allows a 250,000-ton vessel to dock. It is one of the few natural deep-water ports along the 1000 km coastline of Bohai Sea.

11:35 - 13:50 Lunch at the Tangshan Bohai International Conference Centre

13:50 - 17:50 Cultural visits

Eastern Tombs of the Qing Dynasty

The Eastern Qing Tombs are an imperial mausoleum complex of the Qing dynasty located 30 km northwest of Zunhua (Tangshan City of Hebei Province) and 125 kilometres northeast of Beijing. The tomb complex stretches over a total area of 80 km2. They are the largest, most complete and best laid-out extant royal mausoleum complex in China.

During the 247 years of its construction started in 1661, 217 memorial archways were built which consist 15 tombs of varying sizes. The complex extends for 125 km north to south and 20 km east to west. A total of 161 royals of the Qing Dynasty were interred at the site, including 5 emperors, 15 empresses, 136 imperial concubines, 3 princes and 2 princesses.

Eastern Qing Tombs were included in the first batch of national key cultural relics protection units in 1961 and inscribed on the UNESCO World Heritage List in November 2000.



Tuesday, 4 July



H.E. Yaw Osei Adutwum

Deputy Minister for STEM and TVET, Republic of Ghana



Hamid Ahmad

Dr Hamid Ahmed is currently Deputy Chairman, for the Iraqi Prime Minister's Advisory Commission (PMAC), and Advisor for the Prime Minister on education and higher education. He is also Executive Director for the Iraqi Prime Minister's Initiative for Educational Development, which aims to send 10,000 students on scholarship programs to respond to the strategic needs of the country.

As Deputy Chair for PMAC, Dr Ahmed chaired many national committees including one on Iraqi public sector modernization in collaboration with UNDP and USAID. He has worked with UNICEF, UNESCO, and the World Bank, and relevant ministries to develop the national strategy for education and higher education in Iraq, and currently supervises the follow up of implementation of this strategy. Dr Ahmed is also Chair of the Committee on Good Governance as part of UNDAF. He has worked as Secretary General for the Council of Ministers of Iraq (COMSEC) and was Chief of Staff (2010 -2015).

Dr Ahmed obtained his PhD in Biotechnology and two MSc, one in Physiology and another in Higher Education Management. He had worked previously in Basra University, Herriot Watt University and Riverside College as Assistant Professor, post-doctoral research fellow, and learning consultant and senior advisor respectively.



Marcia Rowe Amonde

Marcia Rowe Amonde is currently Senior Director at the HEART Trust NTA, Jamaica where she has responsibility for teacher training and upgrading, overseeing the development of learning resources and monitoring and evaluation of technical and vocational education and training (TVET) programmes. Marcia is a graduate of the University of Twente, Holland where she obtained a Masters in Instructional Systems Design and the University of Manchester, UK where she completed doctoral studies focusing on effective learning in a TVET environment. She currently leads the UNEVOC Center at the HEART Trust NTA. She has focused significantly on effective learning in a TVET environment.



Katerina Ananiadou

Katerina is a Programme Specialist at the section of Youth, Literacy and Skills Development at UNESCO in Paris.

From 2011 to 2016 she worked at UNESCO-UNEVOC where she was responsible for knowledge management and research activities in the field of TVET and for implementing and promoting cooperation and capacity development activities within the UNEVOC Network.

Prior to joining UNESCO Katerina worked for four years as a policy analyst at the Centre for Educational Research and Innovation (CERI) of the OECD, among others on systemic innovation in VET and the New Millennium Learners project. Before that she was a researcher at the Institute of Education in London, specialising on adult literacy and numeracy and workplace learning. Her academic background is in Psychology and Cognitive Science.



Matthias Anbuhl

Matthias Anbuhl was born on 11th August 1970 in Eckernförde, Germany and has studied educational sciences at the Christian-Albrechts-University Kiel.

In 1998 he passed his second state examination and acquired an editorial traineeship at the Schleswig-Holsteinischer Zeitungsverlag (sh:z). Sinc e2009, he has been Head of Department of Education and Qualification Policy on the DGB Executive Board.



David Atchoarena

David Atchoarena is the Director of the Division for Policies and Lifelong Learning Systems at UNESCO. His Division covers, among other areas, ICT in Education and hosts a dedicated programme on mobile learning. Before joining UNESCO Headquarters, Mr. Atchoarena worked at the UNESCO International Institute for Educational Planning. At the Institute, he contributed to develop the capacities of officials from Ministries of Education as the head of the Training and Education Programmes Unit. Prior to working for UNESCO, Mr. Atchoarena served as Chargé de Mission at the National Agency for Lifelong Education in the French Ministry of Education and as a project coordinator in the Ministry of Finance and Planning in Saint Lucia. Mr. Atchoarena is a Special Professor at the University of Nottingham (UK) and holds a Doctorate in Economics from the University of Paris I, Panthéon-Sorbonne.



H.E. Barbara Asher Ayisi

Honourable Barbara Asher Ayisi is currently the Member of Parliament for Cape Coast North Constituency and also deputy Minister of Education, in charge of Basic Education. She has been a teacher of English and literature for many years in Wesley Girls High School (one of Ghana's finest) which is also her alma mater. She is very passionate about Education, Skills training particularly and the creative arts, and has an undying love for aged women and children. Being dynamic and creative woman with a high sense of fashion, she is the owner of Barbara Asher Foundation and Bash Afrique international, which aim at skills training and youth empowerment as well as grooming young ladies in the Cape Coast Metropolis. She is married with two children.



Zinab Bendimiya

Directeur pédagogique dans un centre de formation par apprentissage depuis 2012. Zinab BENDIMIYA se charge de l'insertion socioprofessionnelle des jeunes déscolarisés dans le secteur du bâtiment.

Engagée professionnellement et socialement, elle a fait de la valorisation de la force de travail des personnes vulnérables une cause à défendre. Ingénieur d'application bâtiment génie civile, elle obtient ensuite une licence professionnelle en études et projet de l'université de l'Artois (2010). Sensible au besoin de qualification de la main d'œuvre du secteur BTP au Maroc, elle poursuit actuellement (fin de cursus) un master en ingénierie de la formation et des systèmes à ENSEFA et l'université de Toulouse.

En parallèle à ses occupations professionnelles, Zinab BENDIMIYA s'investie dans la société civil par le billet des actions directes au profit de la population cible, l'action du plaidoyer ou bien le renforcement des capacités des ONGs à travers des ateliers de formation et de planification stratégique.



Britta Buschfeld

Britta Buschfeld, Director Vocational Training at AHK Shanghai since 2010, graduated from Bochum University (M.A.) in Chinese history, Economics of East Asia and Industrial sociology. After working in HR departments of two multi-national companies she took over the position of School Director in Germany for 15 years, which gave her insights of company as well as school partner needs in VET. Working stations in Southern Africa, Singapore and China completed her international experience. Her focus is on VET implementation in China and the support of German companies and Chinese schools. As QM Auditor she is also determined to work on quality processes and aspects in VET. Besides being a member of the German-Chinese Governmental Working Group on VET she is member of various working groups on VET on national and international levels.



Absatou Daddy

Nigérienne. Spécialiste de l'Enseignement et de la Formation Techniques et Professionnels (EFTP). Elle est ou a été Membre de l'équipe des Experts de l'Union Africaine pour les questions et enjeux Migrations et Certifications ; du groupe d'experts UNESCO pour la Révision de la Recommandation révisée 2001 concernant l'EFTP »; Point focal & Expert de l'Association pour le Développement de l'Education en Afrique (ADEA) ; de la Coopération canadienne (ACDI) pour la scolarisation des filles ; Expert national et Rapporteur Générale pour l'élaboration du programme de modernisation et de développement de l'EFPT et la Table Ronde de financement et d'appuis techniques du secteur (novembre 2008), elle a assumé la Coordination d'importants projets & programmes, notamment PADEFT (Bangue Africaine de Développement), PRODEC (Banque Mondiale), de la Coopération Luxembourgeoise (NIG017 et NIG024 en cours). Elle a occupé plusieurs postes de responsabilité au sein de l'administration nationale dont celui de Secrétaire Générale du Ministère des Enseignements Professionnels et Techniques de son pays et est actuellement Conseillère Technique du Ministre.



Yue Du

Mr Du Yue is the Secretary-General of the Chinese National Commission for UNESCO. He is also National Education Supervisor appointed by the Chinese Ministry of Education, Deputy Chairperson of the China Adult Education Association, Deputy President of China Association of Physical Education for Undergraduates and Board member of China Association for International Exchanges in Education. He has rich experience working in the government as well as in the international organization. From 1986 to 1992, he was diplomat in the Permanent Delegation of the People's Republic China to UNESCO. Since 1992 he worked in the Chinese National Commission for UNESCO, first as Director of Education Division and then as Deputy Secretary-General and Secretary-General.

Mr Du Yue holds a PhD in Education from Beijing Normal University. He got his Master's Degree in International Law from Peking University and MA in Education in SciencesPo, France.



Anastasia Fetsi

Since January 2015 Anastasia Fetsi is Head of the Operations Department in the European Training Foundation (ETF). She is an economist and has a long experience on skills development policies in transition economies. As staff member of ETF since 1996 she analysed labour markets and skills matching mechanisms in countries of Eastern Europe, Western Balkans, Central Asia and North Africa; advised policy makers in adapting vocational education and training (VET) systems to emerging socio-economic needs; designed EU programmes in vocational education and training and employment. In a managerial role Anastasia guided the ETF work in the fields of qualifications, skills and migration, education and social inclusion; VET provision and quality assurance; entrepreneurial learning and enterprise skills.



Marie-Josée Fortin

Ms. Fortin provides leadership in the design, implementation and evaluation of international cooperation projects and programs of skills for employment in Africa South America and the Caribbean. She has 29 years of experience in the education (TVET) sector including 18 years at ClCan. She sits on the Board of the Canadian Council of Africa and she is the Chair of the Education Commission of the Canadian Commission for UNESCO.

She manages the Pan-Canadian UNESCO-UNEVOC Center in addition to having been elected by her peers as leader for UNESCO-UNEVOC North America sub-cluster. She collaborates with ministries of education of many countries to support educational reforms tailored to their needs and realities. She is one of the creators of the innovative Education for Employment approach.



H.E. Ahmed Elgeushey Hassaneen

Dr Elgeushey was awarded his B.Sc. In thermo-fluid engineering back in 1983 from Menoufia University, Egypt. He was awarded his PhD in IC Engines (fuel and combustion) in 1997 through a student exchange program between Ain Shams and Michigan universities. He was working as a mechanical engineer for Suez Canal Authority, Egypt (1986-1992). His cordial ties with TVET systems started in 1992 when he joined the faculty of TVET teachers education, Helwan university, as a faculty member. His long stay in that job (1992-2015) has equipped him with a wide experience in most of the TVET issues and challenges. He was the dean of the school for 4 years just before his selection to the post of Deputy Minister of Education for TVET, Egypt. As a senior official and policy maker, Dr Elgeushey is taking the responsibility of the Egyptian TVET system Reform in a very challenging situation.



Jens Hofmann

Jens Hofmann was born in 1969 in Germany. He originally studied business administration at the University of Stuttgart and worked several years for the Fraunhofer Institute for Industrial Engineering also in Stuttgart as a scientist and a consultant.

In 2005 he became staff of the federal ministry of education and research (BMBF) in Berlin. For the last years he worked as deputy head in the department of Innovation Policy Issues on topics like the German Hightech-Strategy, the Federal Report on Research and Innovation and questions of innovation policy in general.

Since May 2017 Jens Hofmann is working at the German embassy in Beijing as head of the Science Section of the Economic Department.



Gyu-hee Hwang

Gyu-hee Hwang is Senior Research Fellow at the Korea Research Institute for Vocational Education & Training (KRIVET) and Director of the Center for Global Cooperation, KRIVET. His main research areas are HRST (Human Resource in Sci-Tech) issues and the futural study. He studied multi-disciplinary subjects such as Statistics, Economics and Sci-Tech Policy. After completion of a doctorate at SPRU (Science and Technology Policy Research Unit, Univ. of Sussex) in the UK in 2001, he acted as a post-doctoral researcher for the Taiwanese Government, and as a policyevaluator at the National Assembly Budget Office in Korea. His recent research papers in English are the following: 'Use of Patent Analysis for the future skills-needs in Information Security'; 'New Approaches for IT Human Resource Development: Korean Cases and the Applicability to Other Countries', 'Utilizing patent data in identifying future skills needs', 'Co-ordination between R&D and Human Resource in the post catching-up era', 'ESD and Technical professionals in the Green Era: focusing on Green Cars related technical professionals', and 'How does Skill Change with Technological Change?.



Amina Idris

Amina Idris is a trained teacher, scholar and educationist with special interest in open and distance learning, gender mainstreaming and the revitalization of TVET in Nigeria. Ms Idris started her educational career by obtaining the National Certificate for Education at ATC/ABU Kano in 1982 before going to complete her Bachelor's degree in education from the Ahmadu Bello University, Zaria. She earned a Masters of Education in Administration and Planning at the University of Lagos before proceeding for her Doctoral degree in Curriculum and Instruction at the Ahmadu Bello University, Zaria. She has contributed immensely to the growth of TVET, women empowerment and education generally in Nigeria and beyond."





H.E. M. Boakai Jaleiba, Jr

M. Boakai Jaleiba, Jr is Liberia's Assistant Minister for Vocational and Technical Training and serves as Head of the Technical Committee of the country's Inter-Ministerial Task Force on technical and vocational training.

He currently serves as the Government of Liberia's Technical Focal Point for all TVET-related programs and for the implementation of country's TVET roadmap.

Prior to his current assignment, he was a member of the prestigious presidential President Young Professionals Program where he served as Program Director of Social Safety Net Hub at the Ministry of Youth and Sports.

Michael Kalinowski

Michael Kalinowski studied Economics at the University of Regensburg, Germany (Dipl. MSc in Economics). In 2007 he joined as researcher the Fraunhofer Institute for Applied Information Technology (Fraunhofer FIT) in Sankt Augustin, Germany, research group MIKMOD. Since 2016, he has been a researcher at the Federal Institute for Vocational Education and Training (BIBB) in Bonn, Germany, in the Section 'Qualifications, Occupational Integration and Employment'. His research interests focus on economics of education and labour market economics including projection of the future qualification and occupation structure of the population and labour work force.



Shyamal Majumdar

Mr Shyamal Majumdar, Head of the UNESCO-UNEVOC International Centre in Bonn, Germany since 2011. From 2007 till his appointment at UNESCO-UNEVOC, he was assigned as Director General of the Colombo Plan Staff College for Technician Education (CPSC), Manila, Philippines Colombo Plan Staff College for Technician Education . Mr Majumdar was also the Vice President of IVETA (International Vocational Education and Training Association) and was Professor at the National Institute of Technical Teachers Training and Research (NITTTR) in India. He holds a Bachelor's degree in electronics and communication engineering, a Master's degree in engineering, and Ph.D. in educational computing. Throughout his career, Mr. Majumdar has worked as researcher, professor, consultant, and professional's experts in various capacities in the field of education and technical vocational education training throughout the world and travelled extensively. He has received various international awards including IVETA Award and CPSC TVET Leadership Award.



Raimo Naanda

Dr. Raimo Naanda is a trained artisan Boilermaker and has worked at the Consolidated Diamond Mine (CDM), now known as Namdeb as well as at the Windhoek Machinen Fabrik.

He has over 30 years of extensive experience in vocational education and training. He has served the vocational education and training sector in various capacities, (first as an Instructor, Senior Instructor, and Head of Training at the Windhoek Vocational Training Centre. He also served as Principal of the Windhoek Vocational Training Centre and was employed at Telecom Namibia as Senior Manager: Training and Development. He is currently Deputy Permanent Secretary in the Ministry of Higher Education, Training and Innovation.

He obtained a PhD in Education from Stellenbosch University and is a registered member of the Institute of Commercial Management in South Africa. Dr. Naanda is also a member of the Institute of People Management (IPM) Namibia.

He has served on various Boards both in public and the private sector. His research interest in TVET policy and management of institutions.





Minister for Education, Saint Lucia



Young-Bum Park

Prof. Dr. Park received a double major in English and economics from Hankuk University of Foreign Studies. In the U.S., he received his master's degree and a Ph.D. in economics at Cornell University.

Now, Prof. Park is the 13th President of Human Resources Development Service of Korea. At Hansung University, he served as a Dean of Academic Affairs and is currently taking a leave of absence.

He was the sixth President of the Korea Research Institute for Vocational Education and Training from October 2011 to August 2014. He was the 23th President of the Korea Labor and Employment Relations Association



Eureta Rosenberg

Prof Eureta Rosenberg is the Murray and Roberts Chair of Environment and Sustainability Education and Director of the Environmental Learning Research Centre at Rhodes University, South Africa. Her PhD, awarded in 1995, focussed on transformative research methodology. Her other scholarly interests include evaluation, strategic planning, and green work and learning. Prof Rosenberg shares the national coordination of the Green Skills Systems Building Programme, aiming to build the capacity of government, employers and education institutions to plan and provide for 'green skills'. Eureta is also editor-in-chief of the Southern African Journal of Environmental Education.



Andreas Schleicher

Andreas Schleicher is Director for Education and Skills, and Special Advisor on Education Policy to the Secretary-General at the Organisation for Economic Co-operation and Development (OECD). As a key member of the OECD's Senior Management team, he supports the Secretary-General's strategy to produce analysis and policy advice that advances economic growth and social progress. In addition, he also oversees the Programme for International Student Assessment (PISA), the OECD Survey of Adult Skills (PIAAC), the OECD Skills Strategy, the OECD Teaching and Learning International Survey (TALIS), and the development and analysis of benchmarks on the performance of education systems (INES).

Before joining the OECD, Mr. Schleicher was Director for Analysis at the International Association for Educational Achievement (IEA). He studied Physics in Germany and received a degree in Mathematics and Statistics in Australia.



H.E. Stanley Mutumba Simataa

Mr Stanley Mutumba Simataa, Deputy Minister of Information and Communication Technology of the Republic of Namibia, has been unanimously elected President of the 38th session of the General Conference of UNESCO. As Deputy Minister, he is the originator of several progressive initiatives moving the nation a step closer to promoting knowledge for development and meeting the tenets of access of information for all.

Mr Simataa also served as Executive Director of the National Council for Higher Education (NCHE) from 2007 to 2010. He once served as Deputy Permanent Secretary in the Ministry of Education, and Director in the Speaker's Office of the National Assembly. In addition Mr Simataa worked for numerous commissions, notably he was Chairman for both the Namibia National Forum on Education for All and the Namibia Sports Commission.



Nathalie Tessier

Nathalie Tessier, Cheffe du bureau des métiers de la transition écologique, Ministère de la transition écologique et solidaire.

Ms Tessier is the chief of the office in charge of anticipating skills needed by the transi-tion towards a greener economy, in the General Commission for Sustainable Develop-ment, French Ministry for the ecological and inclusive transition. She also worked in the private sector for twenty years, first as human ressources manager, then as project manager in internet services network. Nathalie holds a PhD in social legislation from Paris 1 Sorbonne.



Jiping Wang

Mr. Jiping Wang is the Director-General of the Department of Vocational and Adult Education of the Ministry of Education of China. He was born in September 1961 in Xiangyang, Hubei Province. He obtained his master degree in Administration Management in Peking University.



Yichun Yao

Mr. Yichun Yao was born in August 1973 in Sichuan Province. He is the CEO of Pocy Group, General Manager of Beijing Caofeidian International Vocational Education City Investment Corporation and Deputy Chairman of Caofeidian District Federation of Industry and Commerce. He won twice the honor of Top Ten Economic Icons of Guizhou Province and was awarded 2017 Innovation China Annual Leader and 2017 Innovation China Annual Charity Icon.



Fakher Zaibi

Fakher ZAIBI est actuellement Directeur Général de l'Observatoire National de l'Emploi et des Qualifications relevant du Ministère Tunisien de la Formation Professionnelle et de l'Emploi. Il a une riche expérience de 20 ans dans le domaine de la formation professionnelle et de l'emploi particulièrement dans : la conception et l'implémentation des observatoires de l'emploi et de la formation ; l'évaluation du système d'éducation et de formation professionnels ; l'élaboration des stratégies de l'emploi et de la formation professionnelle et des plans d'opération y afférents ; l'identification, la formulation, la planification et l'évaluation des projets et programmes dans le domaine de l'emploi et de la formation ; conception et évaluation des politiques et programmes d'emploi ; et le développement des systèmes de veille, de prospective et d'identification des besoins en qualifications.

Biographies

Wednesday, 5 July



Hernan Araneda

A graduate from the London School of Economics, Mr. Araneda is currently Head of the Center for Innovation in Human Capital within Fundación Chile, a Chilean private and public partnership in the field of innovation, technology transfer and human capital. With more than 25 years working on Skills and Workforce Development, Mr. Araneda has led several initiatives to close the gap between education and industry needs in Chile and Latin America, including the development and piloting of National Skills Certification Systems and Qualification Frameworks for TVET. In the mining sector, Mr. Araneda has played a significant role in the creation of the Chilean Mining Skills Council. In the area of public policy, he has participated in a number of expert committees appointed by the Chilean president to propose long-term policies to improve the quality and relevance of TVET, at both upper secondary and tertiary levels. Finally he has consulted for the IDB, the World Bank, UNIDO, UNWIDER and has been part of expert panels for Country Tertiary Education Reviews with the OECD.



Carla Marangoni de Bona

Designer with M.S. in Communication and Semiotics. She act as a consultant for UX / UI design projects in companies and startups. She was a competitor em Worldskills 2007 and since then act as a mentor for designers and web designers at the WorldSkills Competition. She is a teacher too, teaching classes related to UX and thinking design at FIAP, Caelum, TERA and MasterTech. Lastly, She is an entrepreneur, co-founder of Beebo and Travelr. In addition, She supports a number of women's empowerment initiatives in technology, among which is co-founder of {reprograma}, a social impact project that inspire, empower and educate women by providing them with computing skills and professional training opportunities.



Luis Fernando Cateura

Luis Fernando Cateura got his degree in Business Administration from the Autonomous University of Asunción. He also has a teaching degree for the high school level. Luis Fernando has done courses on strategic planning and marketing for businesses and participated on the team that developed the Organizational Development Evaluation System (ODES), and the validation evaluations. Additionally, he carried out training workshops for the technicians and evaluators on the application of the ODES instrument.

At the Fundación, the results of his term as manager of the Asunción office, one of the main offices of the Microfinance Program, were a success. Among his achievements is the development of the pilot plan and implementation of the Entrepreneuring Women Committees program, which enables training and granting credit to groups of women.

He directed the San Francisco Agriculture School in 2007, the year it achieved self-sufficiency) and in 2008, which saw the first class that included female students. Currently he is in charge of the Self-Sufficient Schools Program of Fundacion Paraguaya.



Borhene Chakroun

Borhene Chakroun is an engineer and has a PhD in Education Sciences from Bourgogne University in France. His academic work focuses on the recognition and validation of prior learning and qualifications. Borhene worked, during the 1990s, as trainer, chief trainer, TVET project manager. He has also worked as shortterm consultant for the EU, World Bank and other international organisations before coming to the European Training Foundation (ETF) in 2001. At the ETF, Borhene worked as Senior Human Capital Development specialist. He has also coordinated the ETF's community of practice on National Qualifications Frameworks and Recognition of Qualifications. He is now Head of the section in charge of TVET at UNESCO and is leading the implementation of the UNESCO TVET strategy adopted in 2016. He coordinated the organisation of the Third International Congress on TVET in Shanghai in 2012. Borhene conducted a range of policy reviews and TVET systems diagnosis in different contexts. He has authored and co-authored various articles and books in the field of TVET and skills development. Much of his most recent work focuses on global trends in reforming TVET systems and global agenda for skills development in the context of the 2030 Sustainable Development Agenda.



Dieter Dohmen

Dr. Dieter Dohmen, born in 1962, is founder, owner and managing director of the Research Insti-tute for the Economics of Education and Social Affairs (FiBS) in Berlin. FiBS is a leading research and consulting institute and think tank focussing on a lifelong learning perspective - covering early childhood education and care, school and higher education, vocational education and train-ing and further education/adult learning, as well as their intersections with the labour market, digitalisation, innovation, demography and social affairs. Responsible for many projects at na-tional as well as international levels, Mr Dohmen has worked as researcher and consultant in the economics of education for almost 30 years. Moreover, he is entrepreneur and, as employer, he has been trainer and teacher in (dual) vocational education and training. In recent years, a par-ticular focus of his research and consulting work has been vocational education and training (incl. further education and adult learning).



Oliver Diehl

Oliver Diehl is Psychologist by training. He has studied Psychology, Political Sciences and Romanic languages in Mainz and Bogotá. Research and dissertation fields were the acculturation of minorities in the business sector (2001). He worked at the German Space- and Aeronautic Agency (DLR) and the German Engineering Society (VDI). Since 2002 he has held various positions at the German Federal Ministry of Education and Research (BMBF), among others dossiers he managed the bilateral science relations with South America and Africa (2002-2006) and worked fields of sustainability (2006-2009) and renewable energies (2010-2013). Since then he is member and assistant head of the policy unit on vocational training. He currently manages the national KAUSAnetwork for the integration of migrants through TVET.



Haiming Jia

Deputy Director-Genernal of Hebei Education Department.



Rupert Maclean

Professor Rupert Maclean is currently QAPCO Professional Chair in Vocational Studies, UNESCO Chair on TVET and Sustainable Development, and Coordinator of the UNEVOC Centre for Qatar, at the College of the North Atlantic-Qatar.

Dr Maclean concurrently occupies several honorary academic positions such as Honorary Professor of Education at the Education University of Hong Kong, and Visiting Professor at the University Tun Hussein Onn Malaysia.

In June 2012 he was awarded an Officer of the Order of Australia (AO) in the Queens Birthday Honours List for his services to improve TVET in developing countries particularly through his work with UNESCO.



Tanja Nackmayr

Born on July 28th 1975 in Berlin, Tanja Nackmayr is a Political scientist and Director for Education and Labor Market Policy at Unternehmer NRW in Dusseldorf. Her expertise in Vocational Education and Training (VET) covers topics such as: apprenticeship/vocational training market; attractiveness of VET for young people and companies; career guidance at school; young women and VET (technical/STEM occupations); integration of disadvantaged youth and refugees into VET; modernization of VET, and connection between VET and higher education.



Olga Oleynikova

Ms Oleynikova is a Professor of Pedagogics (Comparative Education) and the Director of the Centre for Vocational Education and Training Studies in Moscow (Russia).

Ms. Oleynikova has been active in maintaining and enhancing TVET cooperation with the CIS countries and initiated creation of a CIS TVET network. Ms. Oleynikova has also been initiator and leader of numerous project aimed at European cooperation in TVET supported by the European Commission under the Tacis program of Technical Assistance to the Russian Federation. Apart from practical aspects of promoting international cooperation in education, Ms. Oleynikova is a researcher and author of a comprehensive manuscripts on comparative education, about 170 publications and articles on European and international TVET published in Russia and abroad. The recent major project Prof. Oleynikova has put in place in Russia is the development of occupational standards and the National Qualifications Framework.

She is the head of a UNEVOC Center in Russia and a Member of Comparitive and International Education Society. She also served as President of IVETA.



Cesare Onestini

Cesare Onestini will take on the position of Director of the European Training Foundation in September 2017. Currently he is the Deputy Head of the EU Delegation to India and Bhutan.

Since 1995 he worked for the European institutions starting with the promotion of cooperation in education and training; in particular he developed projects for intercultural education, he coordinated school partnerships and teachers' mobility across Member States and was part of the team developing proposals for the first EU programmes for Life Long Learning.

More recently, he has worked for the European Union in external relations, international trade, security and crisis management including at the EU Delegation to the UN in New York.

For the 2013-14 academic year, he was a Visiting Fellow at the Lee Kuan Yew School of Public Policy at the National University of Singapore. Dr Onestini graduated from Oxford University.



Edgar Pereira

Edgar Pereira is the Vocational Education and Training Coordinator at CERCICA (Cascais) and Consultant on Lifelong Guidance and Special Needs Education to the Ministry of Education in Portugal. Psychologist and master in Ethology, he taught human development at the Institute Piaget College of Education (Lisbon) and has been cooperating as an expert with the European Commission, the National Federation of Social Solidarity Cooperatives (FENACERCI), the Portuguese Institute of Employment and Vocational Training (IEFP) and the European Agency for Special Needs and Inclusive Education.



Théodore Rakotoarimino

Après avoir terminé les études à l'Ecole Supérieur Polytechnique d'Antananarivo avec le diplôme d'Ingéniorat en Génie Chimique, M Rakotoarimino a été recruté en qualité d'enseignant au Ministère de l'Education Nationale en 1992 pour être affecté au Lycée Technique d'Ampasampito. Absent au pays pendant 2 ans pour suivre un stage de perfectionnement en Allemagne, il s'est réintégré au Ministère en 1997 et a été nommé Directeur du Groupement Inter-Régional de l'Enseignement Technique et de la Formation Professionnelle à Majunga, une Province situé dans le Nord Ouest du pays jusqu'en 2002. Récemment, M Rakotoarimino était le Directeur de la Professionnalisation des Petits Métiers et de la Promotion de l'Auto Emploi depuis 2014, avant d'être Chef du cabinet du Vice Président du Senat en 2016, puis très récemment en Avril 2017 nommé Directeur Général de l'Enseignement Technique et de la Formation Professionnelle.



Joe Samuels

Joe Samuels is the Chief Executive Officer (CEO) for South African Qualifications Authority (SAQA). He holds a BSc (Hons) and an MPhil from the University of the Western Cape (UWC) in South Africa and is a specialist in Educational Policy and Education Change, Qualifications Frameworks, Standards Setting, Quality Assurance and Adult and Community Education. Mr Samuels has organised and participated in many national and international seminars and conference where he delivered various papers, covering topics like the role of National Qualifications Frameworks (NQF), the generation of qualifications and standards, quality assurance within education and training, the integration of education and training, human rights and the NQF and NQFs / RQFs in the SADC region, on the African continent and globally. He serves on the councils of the Council on Higher Education (CHE), the Quality Council for Trades and Occupations (QCTO), the Quality Council for General and Further Education and Training (Umalusi), National Skills Authority (NSA) and the board of SAQA. He is the current chairperson of the Education Sector Committee of the UNESCO SA National Commission.



Bernd Seuling

Dr Seuling is the Resident Representative of Hanns Seidel Foundation in Shanghai. He is responsible for the development of Hanns Seidel Foundation's projects in China focusing on the reform and development of Chinese schools and universities on vocational education and training (VET) and professionalization of teacher training.

Prior to joining Hanns Seidel Foundation, he was a Researcher on quality managament in VET and Lecturer on educational sciences in the University of Passau.



Yi Shen

Prof. Yi Shen is the Senior Engineer and Vice President of Tianjin Bohai Vocational Technical College. He is well-known as a professor, in Tianjin Higher Universities and Colleges, and as a vocational educator in the National Petrochemical Industry. He is also the Head of the National Boutique course and Teaching Resource Library Project, and was the Designer and Builder of Bohai "Luban Workshop".



Kai Song

Mr Song Kai is the Deputy Director of China Nonferrous Metals Industry Talent Center as well as the Secretary-General of National nonferrous Metals Vocational Education and Teaching Guidance Committee. He presided to draw up "the 11th five-year talent development plan of the iron and steel industry" and "the 13th five-year talent development plan for non-ferrous metals industry".



Hua Su

Mr Hua Su was born in September 1966 in Anqing, Anhui Province. He is the Vice President of China Vocational Education Society and a member of the National Committee of Chinese People's Political Consultative Conference.



Abdi Kirwa Tiony

He is the Head of Department – E-Learning and External Linkages at Rift Valley Technical Training Institute, A centre of Excellence in TVET in the East Africa Region and a senior Lecturer in Mechanical and Automotive Engineering Department. He is also the current Coordinator of the UNEVOC network centre at RVTTI.

He holds an M.Ed (Technology Education) from the University of Eldoret, and B.Ed (Technology Education) from Moi University. He also holds a certificate in IT and a Certificate in Designing and Facilitating E-Learning from the Open polytechnic of New Zealand.

He has a teaching experience from several Technical Training Institutions in Kenya of over 15 years.



Brigitte Trocmé

After studying sociology and social work, Brigitte Trocmé worked for 5 years as a social worker in schools in the suburbs of Paris. She then became a guidance counselor, before joining the Ministry of Education in 1993 as officer in charge for the "training for employment" mission. From 1996 to 2016, she expanded her expertise in the design of vocational qualifications within the office for vocational qualifications which she led. She expanded its field of responsibility to the whole secondary level and to lifelong training. Since 2004, she represents France in the European Commission on subjects related to the European credit system for vocational education and training (ECVET).



Meenu Vadera

Meenu Vadera is Founder and Executive Director of Azad Foundation and founder of Sakha Consulting, which work in India as a hybrid social enterprise to enable resource poor women to transform their life conditions by providing them livelihoods with dignity. Under Meenu's leadership, Azad's flagship programme "Women on Wheels" trains young women from urban slums to become professional drivers — fostering economic independence and vastly expanding their life choices. Women on Wheels has received several awards and recognitions for its pioneering work. Meenu has also been the recipient of Jijabai Award from Shivaji College, University of Delhi in recognition of her work. She was awarded the top honours in Business and Enterprise category of 100 Unseen Powerful Women in the world by One World Women in UK, in 2011.

A graduate of the London School of Economics with a Master of Science in Social Policy and Planning, she has also written and published many articles on women's rights.



Siri Roland Xavier

Professor Dr Siri Roland Xavier is a Deputy Dean (Research & International Relations) of Bank Rakyat School of Business and Entrepreneurship at University Tun Abdul Razak, Malaysia. He is a Board Member of the Global Entrepreneurship Research Association and GEM National Team Leader, Editorial Board Member, Journal of Global Entrepreneurship Research and Editorial Advisory Board Member, Amity Journal of Entrepreneurship. He was the Project Leader for the 'Entrepreneurship Researcher and writer of the ASEAN Regional Entrepreneurship Report 2015 and 2016. He was awarded the 'National Outstanding Researcher Award – Entrepreneurship, Private University Category, 2015' presented by the Ministry of Higher Education. His research areas include Entrepreneurial Policy Development, Innovation Management and Small Business Management.



Jin Yang

Dr Yang Jin, a national education inspector, is currently Director-General of the Central Institute for Vocational and Technical Education (CIVTE) of the Ministry of Education (MOE) of China. He is Vice President of the Chinese Society of Technical and Vocational Education and serves as guest professor in Beijing Normal University, Tianjin University and East China Normal University. From 2008 to 2014, he had worked as a senior programme specialist at the UNESCO Institute for Lifelong Learning (UIL) and managed UIL's programme on lifelong learning policies and strategies. Before joining UIL, Dr Yang was Deputy Director-General of Department of Basic Education, MOE of China. He also worked previously as Chief of the Division of Teaching and Learning Support, Department of Vocational and Adult Education, MOE of China. He holds a B.Sc, an M.Ed and a PhD. yj1@moe.edu.cn



Loukas Zahilas

Loukas Zahilas is Head of the Department for VET Systems and Institutions (DSI) at Cedefop. He studied Chemistry and Information Technologies and he has a PhD in educational policies. After a six-year stint in the pharmaceutical industry he has concentrated his efforts entirely on education and training.

He joined Cedefop in 2006 working on qualifications and the common EU tools. Currently he is a member of Cedefop's management team. His department's work supports the EC, Member States and social partners in fostering policy developments and accelerating the pace of VET reforms focusing on the renewal and modernisation of systems and institutions and supporting cooperation to the further development and implementation of EU tools and instruments.



Wei Zhou

Ms Wei Zhou is the Deputy Director-General of the Department of Vocational and Adult Education of the Ministry of Education of China. She was born in April 1969 in Shenyang, Liaoning Province. She carried out her master degree in Economy in Beijing Normal University.



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