

Learning Forum

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International Centre for Technical and Vocational Education and Training

Striving for Excellence, Shaping Skills Development and Strengthening Global Collaboration in TVET

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 Major transitions that affect supply of and demand for skills including green and digital skills

2 Current bottlenecks and gaps slowing down the transitions



UNESCO's initiatives and ideas for the future





Education and Training can not only respond to the changes in the world of work, it can also shape it.

Economic	Technological	Labour Market	Demographic	Societal and political issues	Sustainable
uncertainty	change	dynamics	transition		Development
2020 recession and long-term impact of COVID Slow and uneven growth	Digitization, Automation, 5G, Generative-Al, leading to Industry 4.0	Labour shortages Informal economy Loss and creation of jobs	Youth bulges vs ageing populations and impacts on education and training systems	Right to lifelong learning , intergenerational solidarity, migrations	Climate change, biodiversity, green transition





WORLD ECONOMIC OUTLOOK OCTOBER 2023 GROWTH PROJECTIONS



INTERNATIONAL MONETARY FUND

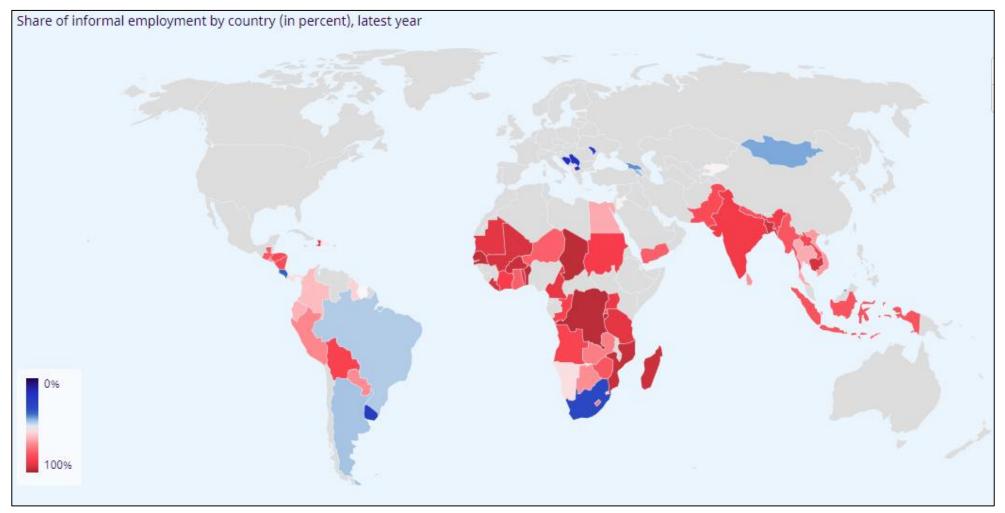
IMF.org #WEO

Top 10 Industry 4.0 Trends & Innovations in 2023

Artificial Intelligence 16%	Edge, Fog and Cloud Computing 11 % Network and Connectivity 11 %	Advanced Robotics 10 %		Internet of Everything 10 %			
Human Augmentation and Extended Reality 13 %		Big Data and Analytics 9 %	3D Printin 8 %	ng	Security, Transparency and Privacy 7 %		
					Digital Twin 5 %		
This tree map illustrates the top 10 innovation trends & their impact on the Industry 4.0 StortUs insights Copyright © 2023 StartUs Insights. All rights reserved January 2023							

Informal economies are not shrinking

Informal employment in developing countries, latest available year







Uneven Situation of Labour Markets

Unemployment rate



The target unemployment rate of 3 per cent is based on the UNSD threshold described in the <u>SDG progress</u> <u>chart technical note</u>. The color coding indicates the distance to this target.

Source: ILO Modelled Estimates database, ILOSTAT • Get the data





Labour Shortages: Severity of shortages by broad occupation group in Europe, 2022

Technicians and associate professionals 14 10 3 Skilled agricultural, forestry and fishery workers 5 Service and sale workers 13 9 Professionals 18 14 6 Plant and machine operators, and assemblers 15 13 Managers 5 5 Elementary occupations 13 Craft and related trades workers 16 16 6 Clerical support workers 8 5 Armed forces occupations 2 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% Number of NCOs reporting at least one occupation with such severity Medium High Low

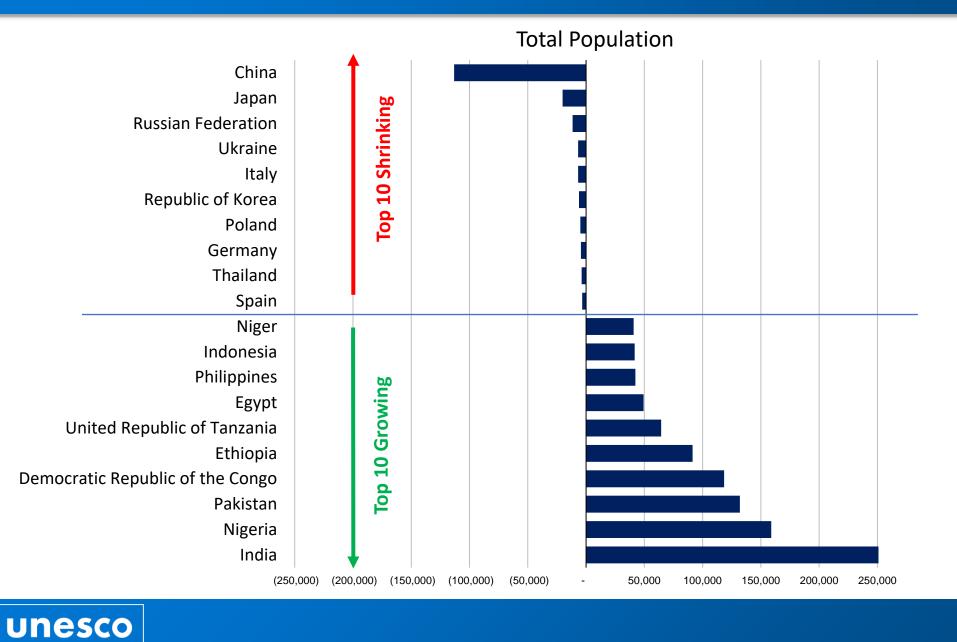


Source: Eures, Labour Shortages Report, 2022



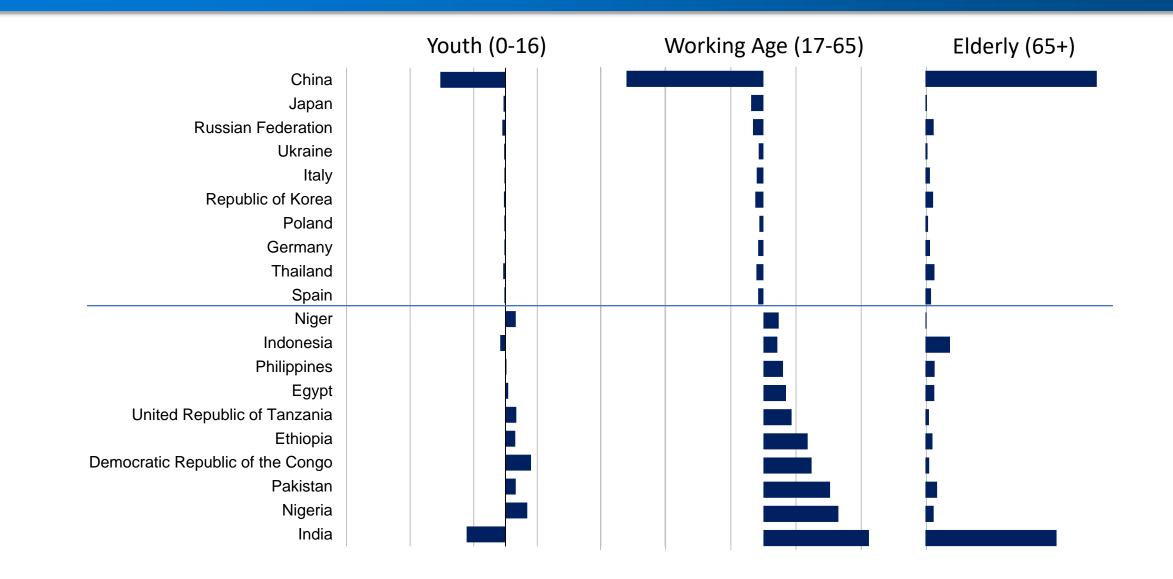
Demography (1/2)

INESCO





Many low-income countries today will have huge prime-age labor forces for the first time (2/2)







Technology and labour markets



- 32% of young women and 15% of young men 15-24 years worldwide were NEET (Nov. 2022)
- Over 763 million youth and adults(2/3 women) lacked basic literacy skills in 20203
- In spite of the post-pandemic recovery, 70.1 million youth 15-24 years (14.1 % of the age group) remained unemployed in Nov. 2022



- 58% of global employment is in the informal sector
- Technological change is challenging formal employment and the associated worker benefits (e.g., approximately 43 million are engaged in the gig economy)



 AI, automation, and other advanced technologies including clean technology, require new skills to succeed in the labour market.



Sources: UNESCO (2022); ILO/Caro et. al. (n.d.)



Skills Forecasting Challenges: Good on Trends, Bad on Pace



- Osborne, M. A., & Frey, C. B. (2013).
 "The future of employment: How susceptible are jobs to computerization?".
- McKinsey Global Institute (2017)
- PWC, Analysis and Reports on Impact of Automatisation (Various dates)
- The WEF 2020



- By 2020s, 47% Jobs in US at risks of Automatization
- 14-15% Jobs at risks of Automatization
- Up to 30% of jobs could be potentially at risk of automation
- By 2025, automation would displace about 85 million jobs but would create around 97 million new roles.



The pace and extent of automation will depend on factors such as technology development, labor market dynamics, economic benefits and investments decision, social dialogue and societal acceptance, etc.

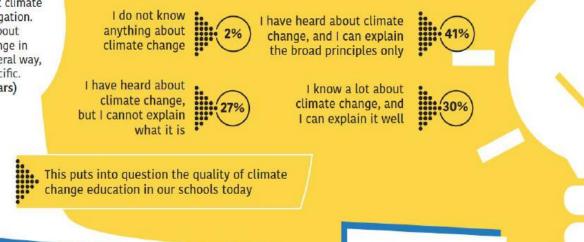




Societal Demand



talked about climate change but we never talked about climate change mitigation. We spoke about climate change in a really general way, nothing specific. Chile (19 years) Seventy per cent of the youth surveyed say that they cannot explain climate change, can only explain its broad principles or do not know anything about it, putting into question the quality of climate change education in our schools today



Youth demands

The quality of climate change education does not meet the needs and expectations of young people.

Source: UNESCO, 2023, Getting every learner climate ready.





Sum-up on global trends

1 No size fits all

2 Demography matters

3 The Pace of Transitions is uneven





BMZ - UNESCO-UNEVOC Dialogue Forum of Green Skills for a Just Transition 14 September 2023

Greening within paradigms: Sustainable Development Goals and SDG4; Human Rights; Leave no-one behind





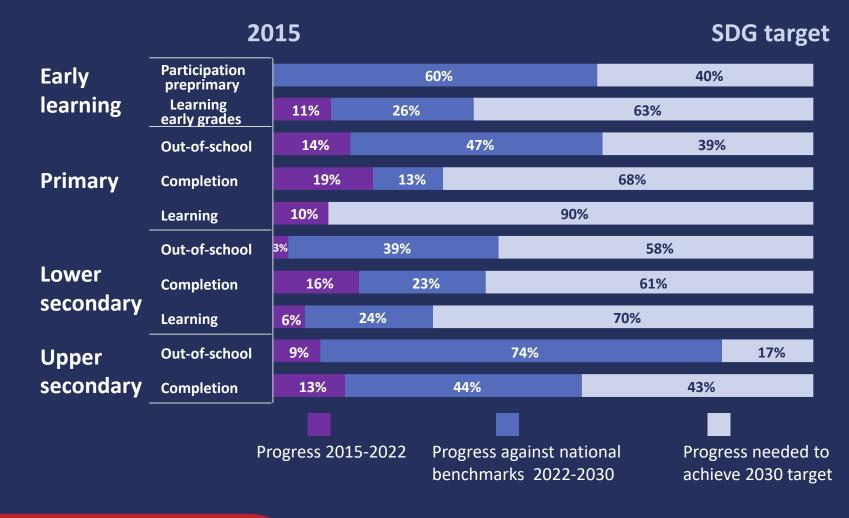




@UNESCOstat data show:

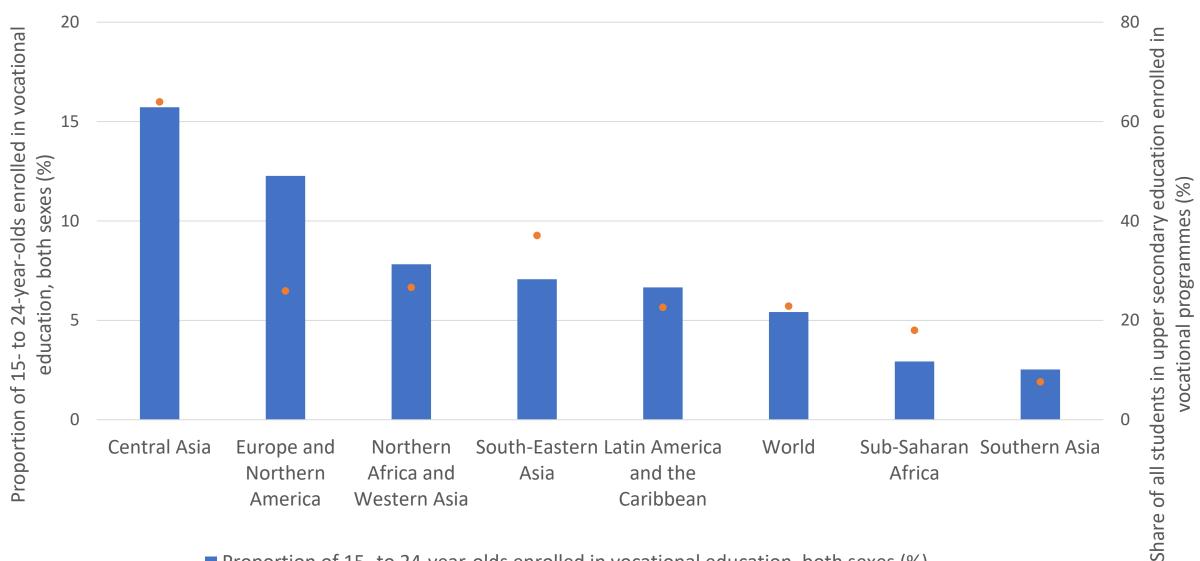
- We have not progressed as much as expected
- Countries are doing better against their national benchmarks, but remain far away from SDG targets

Global progress towards SDG 4 targets



#UISdata

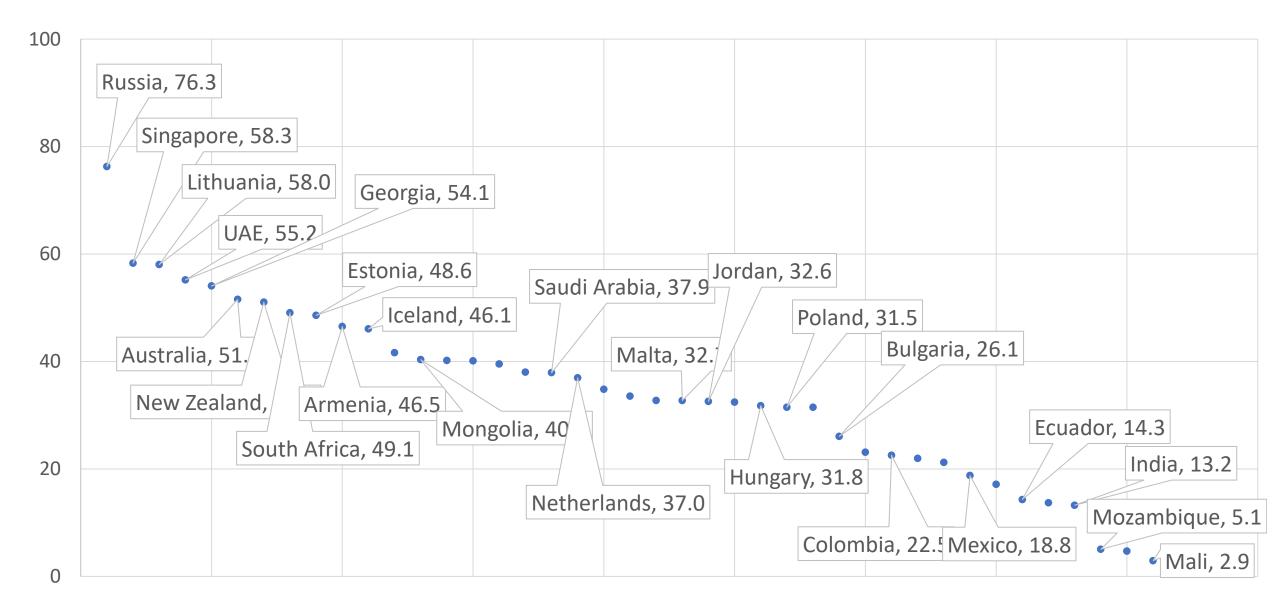
Vocational education indicators (2022 or the latest available year), published by UIS in September 2023

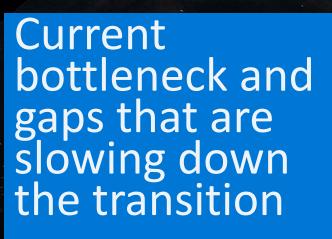


Proportion of 15- to 24-year-olds enrolled in vocational education, both sexes (%)

• Share of all students in upper secondary education enrolled in vocational programmes (%)

Educational attainment rate, completed post-secondary non-tertiary education or higher, population 25+ years, both sexes (%) (2022 or the latest available year)



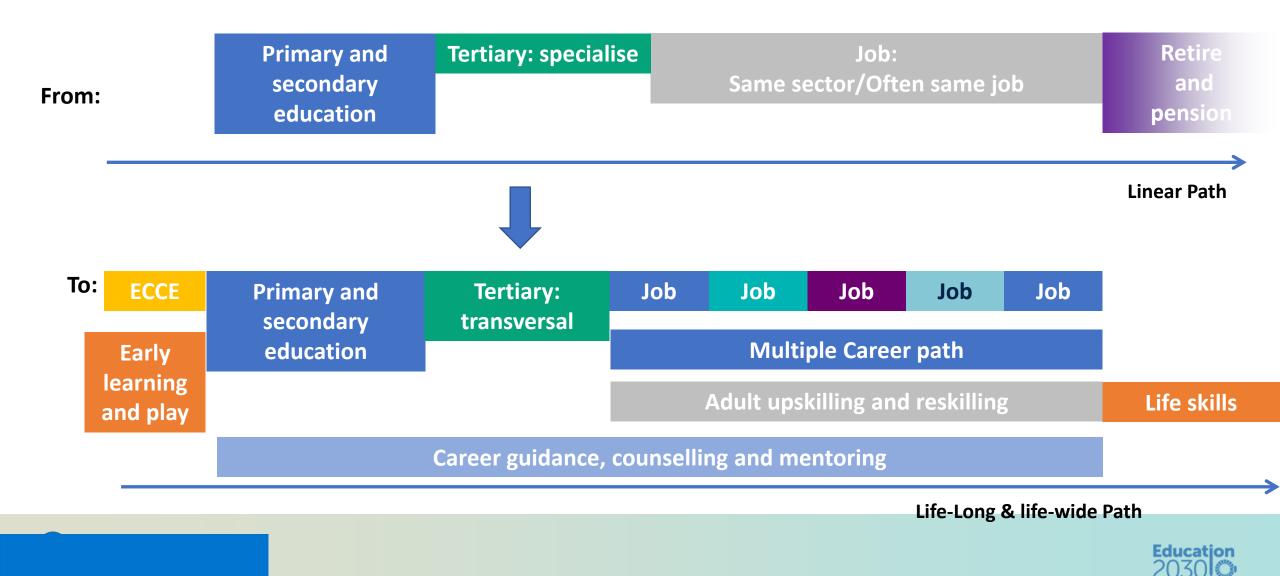




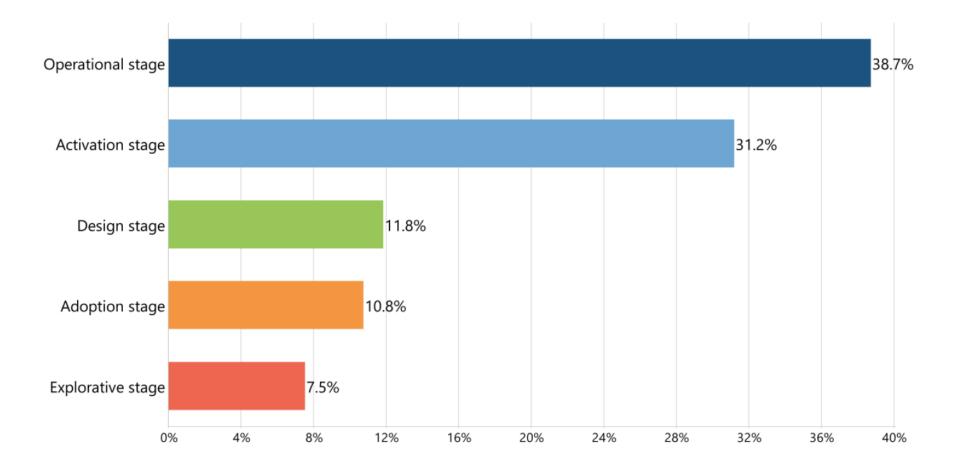




1. Lack of lifelong Learning Perspective for Skills Development



2. Reforms of Qualifications Frameworks are slow: NQFs by stage of development







Key findings from the **BILT scoping study on** Digitalization – **AFRICA**

Digital skills development opportunities for TVET teachers/trainers in Sub-Saharan Africa were verv restricted. resulting in teachers'/trainers' low digital capacities compared to TVET teaching staff in other world regions.

IMPLEMENTATION

Key findings from the **BILT scoping study on** Digitalization – EUROPE

- Use of digital technologies, including virtual learning environments, adaptive learning, immersive environments, mobile learning and flipped classrooms, are revolutionizing TVET delivery and strengthening TVET learners' skills and competencies in the use of technologies for all areas of life. (European Commission 2020)
- Data from the European Commission's SELFIE tool suggests that, while most upper secondary VET teachers across Europe had integrated digital technologies into their teaching practices by the end of 2020, a sizeable proportion (estimated at one-third) had not. (OECD 2021)
- Nearly 60% of TVET providers in Europe and Central Asia had used online and/or other forms of distance learning for courses and training prior to the COVID-19 pandemic, 40% had not.

IMPLEMENTATION

IDENTIFICATION

DIGITALIZATION

100% of European TVET

stakeholders surveyed in

2020 who said that their

conducts national skills

forecasts also said that

explicit attention to the

new skills required in a

digital economy. However,

a lower proportion (67%)

said that their country's

forecasts pay attention to

the new skills required in

a knowledge economy.

these forecasts pay

country regularly

- African TVET teachers/ trainers often have limited knowledge regarding what digital skills and knowledge are required owing to a lack of sufficient information on labour market.
- Only 40% of African TVET stakeholders surveyed in 2020 said that their country regularly conducts national skills forecasts that pay explicit attention to the new skills required in a digital economy, and an even lower percentage (20%) said that their country's national skills forecasts pay attention to the new skills required in a knowledge economy.

INTEGRATION

IDENTIFICATION

DIGITALIZATION

- Prior to the COVID-19 pandemic, national policies on digitalization in education in most low-income and lowermiddle-income countries - the bulk of which are located in Africa - were still in the development stages and tended to target general education, with little or no attention paid to
- Most European countries have a national digital skills strategy in place. In addition, the European Union has developed frameworks for building the digital skills and competencies of learners, teachers and educational organizations: the **Digital Competence Framework for** Citizens (DigComp) and the Digital **Competence Framework for** Educators (DigCompEdu). (ETF 2018) However, most countries' national policies on digitalization in education do not cover the TVET sector. Thus, digital innovation in TVET has tended to be driven by individual TVET institutions or by individual teachers or teacher communities. (European Commission 2020)

INTEGRATION

Key findings from the **BILT scoping study on ASIA-PACIFIC**

- As early as 2015, most governments in the region had put policies in place to prepare TVET students for the transition to a digital and/or knowledge economy
- Practices range from offering training in electronic and/or digital technologies; to emphasizing innovation-related (STEM) skills in the TVET curriculum; and integrating electronic and/or digital methods and technologies across the TVET curriculum.
- These policies have had a positive impact on employers' regard for TVET graduates' digital skills. (UNESCO 2016)

83% of Asia-Pacific TVET stakeholders surveyed in 2020 said that their country regularly conducts national skills forecasts that pay explicit attention to the new skills required in a digital economy.

However, a much lower percentage (50%) said that their country's national skills forecasts pay attention to the new skills required in a knowledge economy.

MPLEMENTATION

DIGITALIZATION

Most Asia-Pacific governments have

promoting the integration of ICT in

National policies on ICT in education

usually consist of general principles.

guidelines and strategies, with short

to medium-term targets (e.g. 5- to

10-year plans) aligned with longer-

often apply to the education sector

term goals and objectives. They

as a whole, rather than to TVET

specifically, although measures

implemented. (UNESCO 2016)

targeting TVET may be

made formal commitments to

education.

TVET is neglected in Digital Transformation

TVET Stakeholders need more and better data

TVET Teaching Workforce Lack Skills for **Digital Transformation**

Education

Digitalization –

The way forward and UNESCO's role

- UNESCO's Strategy for TVET
 2022-2029
 - UNESCO's Global Education Partnership
- UNESCO's Global Skills Academy
- Three Ideas for the Future







Vision Statement of the Secretary-General on Transforming Education



Transforming Education: An urgent political imperative for our collective future

First and foremost, this calls for education systems to embrace the concept of life-long learning, with more flexible pathways and financial policy incentives to allow people to re-engage with education systems several times throughout their lives. Different avenues should be made available including non-formal routes, catch-up and bridging programs, accelerated learning, and the use of digital platforms.







1

Developing Skills for INDIVIDUALS to Learn, work and Live



2 Developing Skills for inclusive and sustainable ECONOMIES



3

Developing Skills for Inclusive and peaceful SOCIETIES

Better Skills for Better Life and Work

UNESCO Strategy for TVET





UNESCO Greening Education Partnership

- Launched by UNESCO at UN Transforming Education Summit, New York, September 2022
- Attracted 70 Member States, 700+ organizations (as of June 2023)

Goal of the initiative:

Strong, coordinated and comprehensive global collaboration among stakeholders on climate change education

Key results:

- Co-creation of a Multi-Partner Trust Fund
- Development of a global green school quality standard
- Development of green curriculum guidance
- Development of guidelines on teacher preparedness

GREENING SCHOOLS

Vision

Goal

Countries and organizations are encouraged to join the Greening Education Partnership,

Vision

Progress is regularly monitored and the global Support teachers and policy makers through the integration of climate education in pre-service and in-service teacher training, building the capacity of school leaders and key education stakeholders.

Goal

All school leaders and at least 1 teacher per school will have been trained on how to integrate climate education into teaching and learning throughout the school.



Source: UNESCO

HERE'S HOW YOU CAN

COMMIT

expressing their interest in at least one the four action areas.

network 'ESD-Net 2030' will provide a

platform to exchange experiences and

showcase good practices.

GREENING LEARNING

Vision

Embrace a life-long learning approach that integrates climate education into school curricula, technical and vocational education and training.

Goal

The number of countries which include climate education in school curricula at the pre-primary, primary, and secondary levels will have at least doubled from the current ~ 45%.

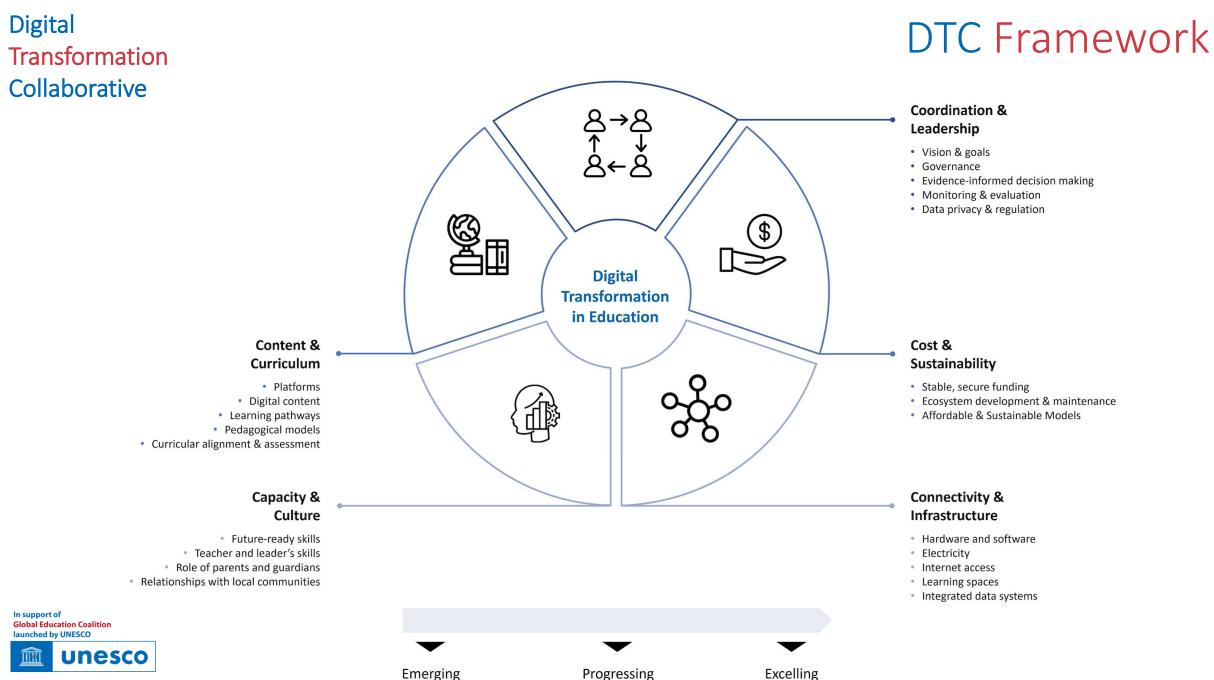
Vision

Engage the entire community by integrating climate education in life-long learning, in particular through community learning centres and learning cities.

Goal

All countries will be able to report at least 3 different ways learning opportunities are made available for adults outside the formal education system to develop the skills, attitudes, and actions that will foster community resilience to tackle climate change. **A**

GREENING COMMUNITIES



Global Skills Academy framework and goals

Scaling to support **10 million learners** by 2029 to enhance their **employability** and **resilience** in a changing labour market. 2029 2023 1,000,000+ Learners **10 million Skilled Strengthen Partnerships** Foundational and New GEC **24+** Partners from the Global **Demand Driven Solutions** partnerships mobilized toward for Transforming Education **Education Coalition Dissemination and** Ministries, TVET and **170+** TVET institutions across Advocacy **National Institutions** the world **Resource Mobilization Global impact 63** Countries PARTNERSHIPS For the goals DECENT WORK AND ECONOMIC GROWTH 4 QUALITY EDUCATION In support of **COVID-19 Global Education Coalition** Educatio Launched by UNESCO





UNEVOC Network: a global platform for cooperation, knowledge sharing and capacity building





UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training (UNESCO-UNEVOC)







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Three Ideas for the Future



Global Virtual Centre of Excellence for Innovation in TVET

- Repository of promising practices in digital skilling and upskilling/reskilling
- Professional certification and credentials
- Skills Development Opportunities
- Expertise Support to Excellence



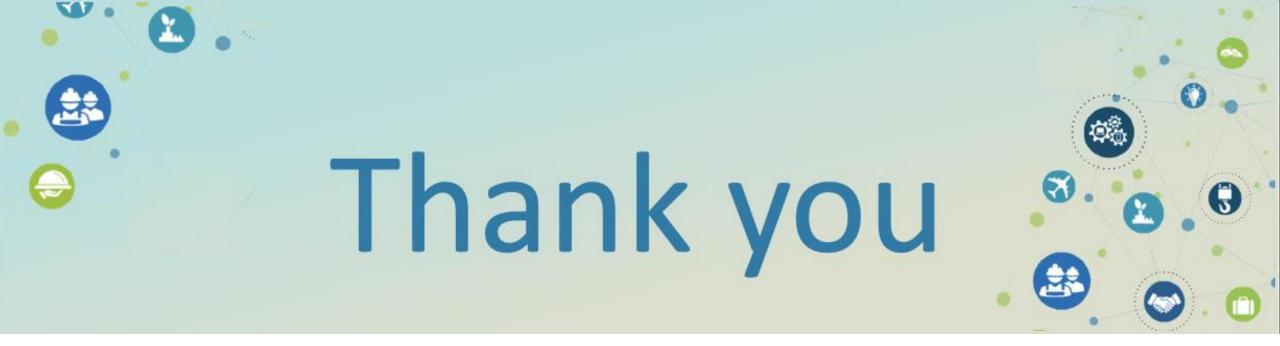
Global Skills Tracker

- Fact sheets of labour market analysis
- Skills Taxonomy
- Occupation and Skills standards



Global Award for Innovation in TVET

- Stimulate Innovation
- Promote Innovative Practice
- Enrich the Repository of promising practices



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