

# TORINO PROCESS 2014

## CENTRAL ASIA



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# INTRODUCTION

The Torino Process is a participatory approach supporting evidence-based analyses of vocational education and training (VET) policies. Introduced in 2010 as a biennial methodology for partner countries, the Torino Process diagnoses policy problems and promotes collective agreement on strategic goals for reform. The second round in 2012 established a robust baseline in each country against which to monitor policy progress. The third round of the Torino Process started in 2014 and was designed to monitor policy progress against the 2012 baseline and to address the wish of partner countries to move on from problem diagnosis to the formulation of optimal policy solutions.

The added value of the Torino Process is that it links VET to a socio-economic context, ensures that analysis is informed by relevant developments and takes place through a dialogue with the countries involved. The Torino Process proposes a common framework to monitor progress of VET reform at both national and regional or cross-country level. The dual objective aims to facilitate coherence while fostering dialogue and peer learning.

This is a regional report presenting the conclusions of the 2014 Torino Process within the four participating Central Asian republics. The document was discussed at the regional Torino Process meeting in Bishkek, on 11-12 December and finalised in advance of the international conference in Torino in June 2015. This regional report builds on the basis of the Torino Process reports and analyses prepared with ETF support for Uzbekistan, Tajikistan, Kyrgyzstan and Kazakhstan.

Publically available evidence and information on education for the region is drawn upon for the report, particularly from the Education Sector Plan prepared since 2012 in each of the countries and from World Bank data series. The country reports have been prepared in consultation with key stakeholders within the countries. The 2014 Torino Process reports the direction and content of reform and also outlines the progress achieved in VET since the beginning of the Torino Process in 2010.

The report also includes a list of the focus areas for each country and a summary of progress.





## EXECUTIVE SUMMARY

Vocational education and training has developed further in Central Asia, even in areas where resources are scarce. Change is driven by a combination of socio-economic pressures and growing policy engagement on the part of stakeholders. Multiple adaptations across countries in the past two decades clearly demonstrate that the region has significant capacity for change. However, this capacity is not distributed in a uniform manner. The relative size of each national VET system creates varying capacities and opportunities for change. Business education cooperation and cross sector institutional cooperation within education are the main constraints on capacities, with practical issues related to implementation within national institutional frameworks frequently outweighing policy development limitations. This means that the country have both policy challenges and implementation challenges and of these, implementation challenges are more constraining.

While mixed employment patterns exist in each of the countries, there are examples of good practice that could be identified and distributed as models across each system. Rates of total employment in the Central Asian countries are diverse with employment in agriculture remaining an important feature, even though employment in the sector has declined in all countries.

Each country also engages to some extent in labour force analyses and national planning processes that provide skills needs forecasts of differing degrees of accuracy.

The greater incidence of short courses in the formal sector since 2010 can be expected to draw more employers into closer relationships with education providers, while career guidance is an area of potential under-achievement. VET continues to be a vehicle for the inclusion in national social protection systems, and most countries have programmes targeted on groups with specific needs.

The development of pathways and institutional cooperation between different sectors (initial and secondary education, or between the Ministries of Labour and Education) represent a major challenge in all of the systems.

Small business sector growth is one of the stronger trends across the region and this area is making an ongoing contribution to gross domestic product (GDP) and employment in all countries. However, it is not clear whether business education cooperation is sufficiently well organised to deliver training to small businesses in either initial or continuing VET systems.

Developments on internal efficiency are the most active area of VET across the region with all of the countries developing new institutions to work for improved quality assurance. The status of the public certificate or diploma has been maintained and this continues to be considered a benchmark qualification reflecting public confidence in the VET systems. Most countries have increased expenditure on VET in the last two years and they are expected to continue this in the future.

Efficiencies may be easier to obtain in the larger systems as they are better able to take advantage of economies of scale in terms of investments, particularly in relation to physical infrastructure and teachers. Cooperation between institutions seems to be strongest in the planning and review of policy development, while policy consultation could be extended to include greater discussion and cooperation at the implementation stage. There is also scope for regional co-operation particularly in relation to mechanisms that can facilitate and maximise the benefits of labour migration.

Areas for particular focus in the further development of vocational education in the region concern instruments that support mobility such as qualification frameworks, including validation of prior learning, mechanisms that link business (particularly small business) and education, and devolved planning for the identification of needs and flexibility.

## COUNTRY PRIORITIES SUGGESTED BY THE 2014 TORINO PROCESS COUNTRY REPORTS

Country	Topic
Kazakhstan	<p>Business–education cooperation in policy making and implementation</p> <p>Professional development of VET staff from education and business sides</p> <p>Vet quality and attractiveness</p>
Kyrgyzstan	<p>Cooperation between Ministries of Labour and Education on initial and secondary VET</p> <p>Capacity development for teachers, trainers and education managers, including school management</p> <p>Business-education cooperation at national and sectoral levels</p> <p>Collection and use of labour market and education information to enhance policy performance management and quality assurance</p>
Tajikistan	<p>Cooperation between VET sectors, including adult learning, and initial and secondary education</p> <p>Quality assurance</p> <p>Business-education cooperation and social partnership at national level and extension of revenue sources</p> <p>Professional staff development, including technical capacities</p>
Uzbekistan	<p>Business and VET cooperation, including small business</p> <p>Post-secondary VET</p> <p>Continuing Professional development of teachers</p>

## PROGRESS AND CHALLENGES IN VET IN CENTRAL ASIA SINCE 2010

Area	Progress and challenges 2010-12	Achievements, progress and challenges 2010-14
<p>Legislation and strategic documents</p>	<p>All countries have developed new legislation or new education and employment strategies up to 2015 or 2020</p> <p>Strategic documents are clear in terms of directions, priorities and targets, most also include an action plan and identified budget for reform implementation</p> <p>Consultation processes widened and include social partners</p> <p>Education budgets increased</p>	<p>Development of legislation and policy frameworks for VET sustained and further elaborated during the period</p> <p>All countries have comprehensive multi-annual strategies for strengthening the education sector as a whole and VET in particular</p> <p>VET is a salient government policy throughout the region and skills are an area of key interest to the business community</p>
<p>Governance and stakeholder involvement</p>	<p>National, regional or local skills councils set up in most countries, with social partners represented</p> <p>Challenge in increased ownership on the part of the different partners and making their work relevant and effective</p> <p>All countries have VET agencies or other VET support institutions that play an important role in policy implementation</p>	<p>Institutional development has been sustained and expanded in the region through further development of:</p> <ul style="list-style-type: none"> <li>▪ government VET institutions, e.g. methodological centres</li> <li>▪ government–stakeholder cooperation mechanisms, e.g., National VET Council, National Accreditation Council, Kaspikor</li> <li>▪ sector skills councils established in Kazakhstan and Kyrgyzstan</li> <li>▪ parent and community groups on school boards and representative groups</li> </ul> <p>Continuing challenges in institutional cooperation during policy implementation</p> <p>Scope for more devolved administration and planning</p>
<p>Education and business cooperation</p>	<p>Improved employer engagement in policy dialogue and development of standards</p> <p>More local level more partnerships between schools and enterprises</p> <p>Enterprises represented on school boards in Kyrgyzstan</p> <p>Enterprise involvement is a key policy priority in Uzbekistan and Kazakhstan, where the Kaspikor Holding is a significant development</p> <p>Progress made towards creating training placements in companies in Uzbekistan and Kazakhstan</p>	<p>Round tables between business and government are developing form of cooperation</p> <p>Improved capacities to adapt enterprise content at a local level for initial VET</p> <p>Expansion of internships and training places for VET graduates</p> <p>Systematic approaches not uniformly established</p> <p>Additional focus on small business is necessary</p> <p>Potential for co-operative regional approaches that support migrants</p>
<p>Teachers' salaries and training</p>	<p>All countries recognised the importance of teachers by awarding them substantial salary increases</p> <p>Opportunities for pre- and in-service teacher training improved</p>	<p>Teachers' salaries maintained or increased</p> <p>Teacher training initiatives under way across the region</p>
<p>VET financing</p>	<p>Per capita financing introduced in all four countries (effectiveness not yet confirmed)</p>	<p>Financing has increased and is being diversified through fees or private courses</p> <p>Further implementation of per capita funding unclear although still part of education development strategies</p> <p>Financial efficiency is a priority in all countries</p>

Area	Progress and challenges 2010-12	Achievements, progress and challenges 2010-14
Standards development	All countries developed new occupational and education standards and opened discussion on the development of national qualification frameworks	<p>Vocational content and standards supported by systematic national processes or local adaptations</p> <p>Regular updating of vocational content an established process</p> <p>Updated national occupational classifiers in all countries</p> <p>National qualifications frameworks are discussed in the region, but practical developments remain at initial stages. No strategic perspective</p> <p>Stronger focus on active learning strategies.</p> <p>Stronger focus on broad-based vocational curriculum development, including language training as a vocational competence</p>
Quality and quality assurance	<p>Quality a key issue in all countries despite diversity</p> <p>Kyrgyzstan and Tajikistan introduced quality assurance mechanisms through quality units in schools and the development of an Education Quality Management Centre</p> <p>Business involvement, teacher training and investments in infrastructure will have an impact on overall quality, but a more systemic quality assurance approach and mechanisms would be beneficial</p>	<p>Clear focus on quality assurance as a priority in all countries</p> <p>Movement away from quality control towards quality assurance</p> <p>Major focus in most countries on improving teacher quality through pre-service or in-service training</p> <p>Movement towards assessment and self-assessment as a tool for school development</p>
Attractiveness of VET and pathways	<p>VET is still a second choice for students Except in Uzbekistan</p> <p>Concerns about dropout rates in Kyrgyzstan and Tajikistan in particular</p> <p>Growing VET participation and the rise of private VET schools may be an indicator of an improving status</p> <p>Little information available on opportunities for graduates to continue studying at universities, other post-secondary VET options, or job finding</p> <p>Few VET graduates continue studying at universities</p> <p>Limited information available about the labour market and career guidance is an area for development</p>	<p>VET improving as an educational option due to improved perceptions of VET as a route to employment</p> <p>The development of pathways towards higher post-school qualification and greater promotion of VET by governments as well as stronger emphasis by employers on the need for skills</p> <p>Development of small business as a source of employment is also improving the perception of VET</p> <p>Trends in short courses need to be recognised in institutional and funding frameworks and practices</p>
School development	<p>Opportunities to increase the school performance</p> <p>Granting incentives for school development and removing barriers could contribute to quality improvements</p>	Multiple processes underway on further developing VET schools in the region
Collection and use of policy indicators	<p>Increased information and statistics on education</p> <p>Traditionally, little specific data available for VET</p> <p>Combined collection of quantitative and qualitative information for policy monitoring and evaluation can support the policy cycle</p>	Strategic multi-annual plans incorporating indicators or benchmarks as part of vocational development strategies in all countries

# 1 VISION

## 1.1 Overview of the vocational education and training systems of the region

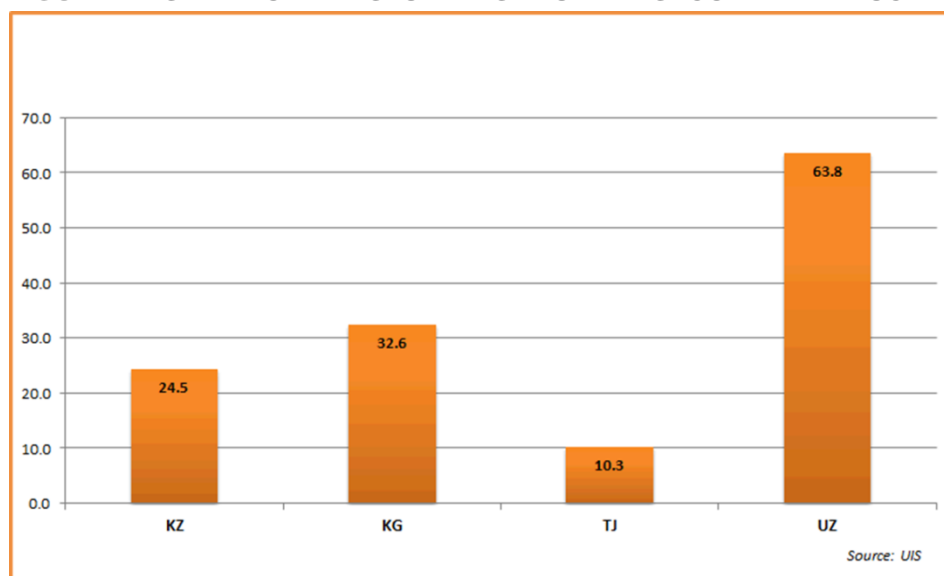
All countries in the region have VET systems. These provide initial and continuing vocational education (IVET and CVT) within systems that differ significantly from each other. Vocational education and training is strongly supported across the region within a framework of updated legislation and public sector management. The principal difference in the structure of vocational education in the region is its different role in secondary education. In Uzbekistan, VET has a high status; in Kazakhstan, it has a moderate status, and in Kyrgyzstan and Tajikistan, it has a lower but growing status.

Each country is adapting to major economic and social challenges. Their vocational education systems either perform well or have the potential to perform well within the context of challenges that relate mainly to policy frameworks or financial or institutional capacities. Other national factors such as geography and country size also shape the features of each system.

In most cases, medium-term strategies are addressing the most serious challenges.

VET in all of these countries aims to prepare students for successful transition to the labour force and subsequent employment.

**FIGURE 1.1 SHARE OF VET STUDENTS IN UPPER SECONDARY EDUCATION (%)**



Source: *Unesco Institute for Statistics*

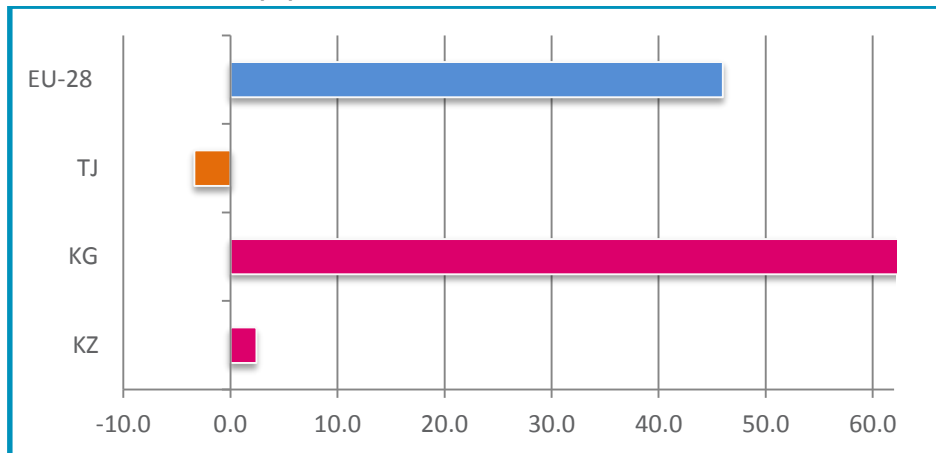
VET is most extensive in Uzbekistan. National data for Uzbekistan indicates approximately 90% participation in the education system for 16-19 year-olds. The difference between the percentage given in **FIGURE 1.1** and the Uzbek national figures given in the text is due to the use of different collection sources for the estimates<sup>1</sup>. The key feature is that the Uzbek system is much larger than the other systems of the region. The national figure for Uzbekistan is 90%.

According to the comparison of data between TRP 2012 and TRP 2014, participation in VET as a percentage of total upper secondary education has increased in Kyrgyzstan (+114.5%) and

<sup>1</sup> Essentially differences between national and international data series.

Kazakhstan (+2.4%). The high level of participation in Uzbekistan reported in 2012 has been maintained, while a small decline (-3.4%) has been seen in Tajikistan. In all countries, VET provision begins upon the completion of general education at 16.

**FIGURE 1.2 PARTICIPATION IN VET AS A PERCENTAGE OF TOTAL UPPER SECONDARY: TRP 2012-14 CHANGES (%)**



Source: ETF calculations on Unesco data

The formal CVET sector is more developed in Kyrgyzstan and Tajikistan. However, while CVET in Kyrgyzstan is made up of a two-year programme at specialised institutions, in Tajikistan it is mainly delivered in short programmes through a national network of adult training centres. In Uzbekistan, CVET is provided through short courses at adult training centres associated with line ministries, offering short programmes for workers seeking to upgrade skills as part of career development. Short courses for CVET are also a major trend in Kyrgyzstan.

Pathways continue to be developed between other sectors of education and vocational education, but with significant differences across the region. In Uzbekistan offers vocational pathways in senior (or upper) specialised secondary education, while Kyrgyzstan and Tajikistan provide a combined pathway. Access to higher education also differs with the possibility of entry to higher education at completion of secondary education in Tajikistan and Uzbekistan; secondary VET in Kyrgyzstan offers preferential entry to higher education.

## 1.2 Vision for vocational education and training systems

The perspective on vocational education and training in the region described in the 2012 Torino Process report is still relevant for the region in 2014. The countries of the region demonstrate a commitment towards VET as meaningful policy, and each has a clearly formulated statement of VET as a major contributor to economic and social development. While it is not possible to identify a single common vision for VET across the region, individual visions for VET in each of the four countries view VET as a contributor to economic and social development. There is also no evident current demand for a convergent approach in the region. However, there exists scope and possible needs for closer international cooperation both within the region and between countries of the region and other countries. This could include EU Member States, but also partner countries of the EU.

Each of the systems is supported by legislation and multi-annual development plans that provide directions or a series of benchmarks. VET is not a neglected sector in any of these countries, but rather it appears a salient policy with a growing relevance for the education as a sector as a whole.

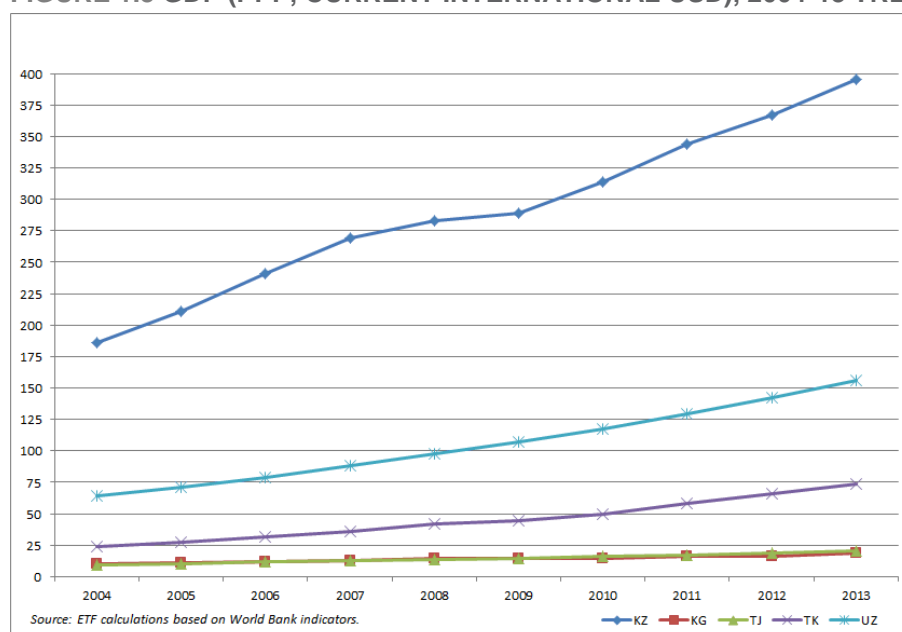
The perspective of each system is mainly targeted on young people, not adults.

## 1.3 Drivers of change

Change is not generally evidence based in the sense that governments have developed their priorities by systematically collecting data and formulating proposals based on conclusions reached following the assessment of the data. Programme assessments and strategy renewals do occur based on data but the drivers of change are generally national priorities of economic growth and social development.

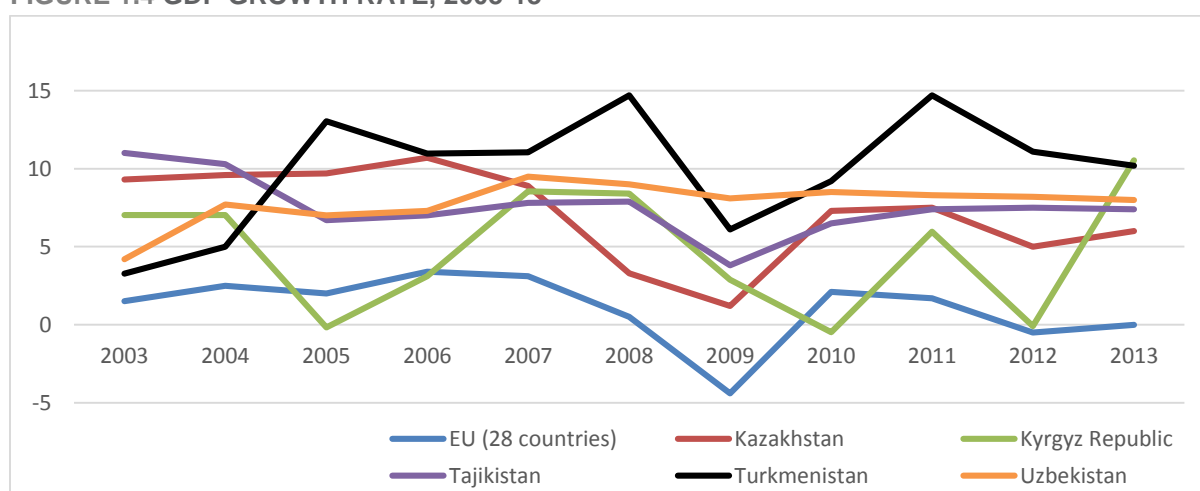
Each country is exploring options most appropriate to common challenges of pursuing economic growth and structural adjustment in economic sectors and its corresponding impact on their populations. Growth rates are positive, and generally correspond to the respective size of each economy, with Kazakhstan growing more rapidly than Uzbekistan, which in turn has grown faster than Kyrgyzstan and Tajikistan.

**FIGURE 1.3 GDP (PPP, CURRENT INTERNATIONAL USD), 2004-13 TRENDS**



Source: ETF calculations based on World Bank indicators

**FIGURE 1.4 GDP GROWTH RATE, 2003-13**

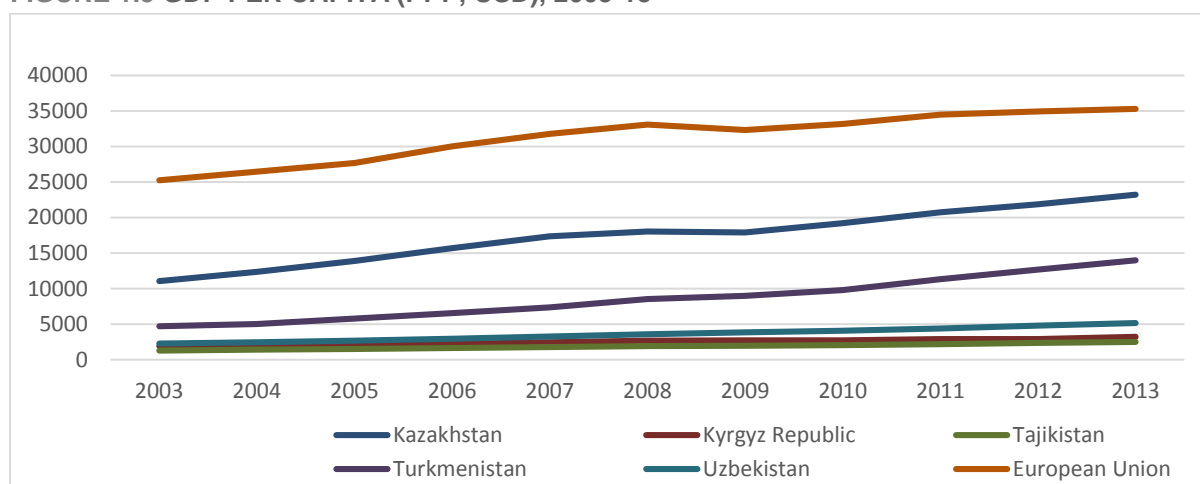


Source: Eurostat and World Bank

Between the Torino Process reports of 2012 and 2014, the percentage change in the annual growth rate of GDP is negative in all countries but Kyrgyzstan.

In terms of GDP per capita, growth rates have been strongest for Kazakhstan and Turkmenistan.

**FIGURE 1.5 GDP PER CAPITA (PPP, USD), 2003-13**

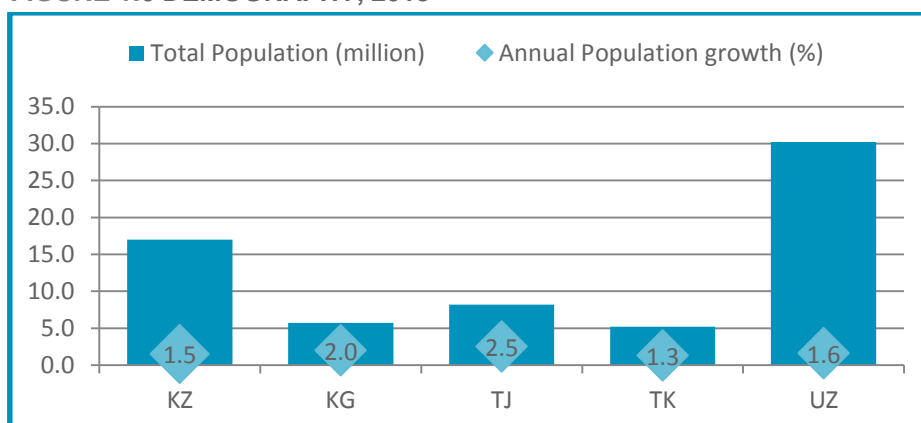


Source: World Bank

## Population

The populations of the Central Asian countries are growing. Uzbekistan is the region's most populated country (30.2 million inhabitants), followed by Kazakhstan (17 million), Tajikistan (8.2 million), Kyrgyzstan (5.7 million) and Turkmenistan (5.2 million).

**FIGURE 1.6 DEMOGRAPHY, 2013**



Source: World Bank

The largest driver of change in vocational education is growth of the youth population and its impact of this on the labour force. Government initiatives are needed to respond to this demographic change which is creating a large new labour force that needs to be absorbed into the economies of the region.

Central Asian countries will continue to experience this pressure. The region is moving to a situation in which the largest share of working age population is of prime working age. This suggests that it will be increasingly important that the labour force be used effectively to maximise the economic benefits and potential returns from an expanding population<sup>2</sup>.

<sup>2</sup> Opportunities for men and women in emerging Europe and Central Asia 2012.



**TABLE 1.1 POPULATION ESTIMATIONS AND PROJECTIONS, 2010 AND 2025 (THOUSANDS)**

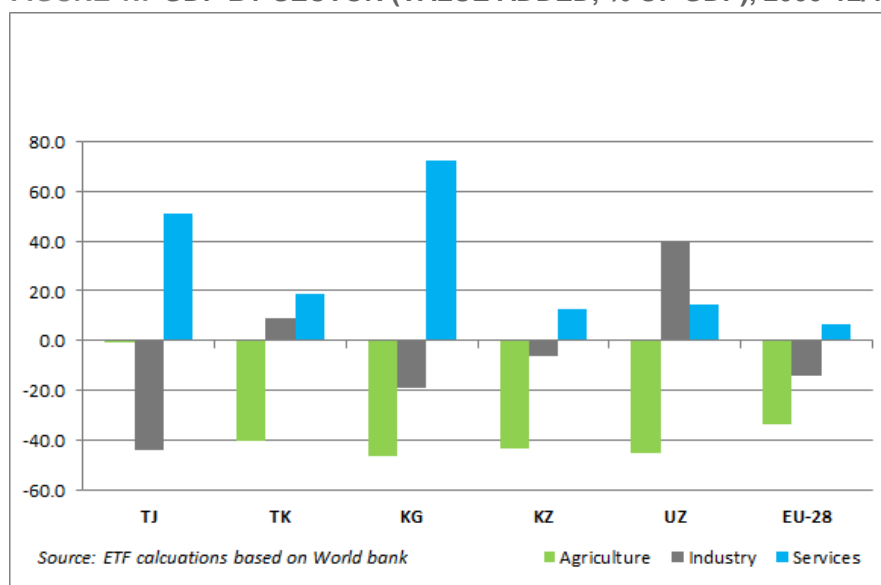
	2010			2025		
	Total population	Youth population 0-14	Working age population 15-64	Total population	Youth population 0-14	Working age population 15-64
Kazakhstan	15 921.1	3 966.4	10 895.8	18 115.6	4 632.6	11 903.5
Kyrgyzstan	5 334.2	1 602.7	3 495.2	6 556.6	2 076.0	4 114.2
Tajikistan	7 627.3	2 739.2	4 636.0	10 538.6	3 786.2	6 302.3
Turkmenistan	5 042.0	1 473.8	3 360.4	5 951.3	1 530.5	4 055.8
Uzbekistan	27 769.3	8 267.4	18 282.7	32 991.3	8 439.8	22 451.9

Source: UNDP, *World Population Prospects: The 2012 Revision; Medium variant*

### Sectoral change

Relatively strong and sustained economic growth in the region is supporting development of the services sector, leading to increasing employer demand for new skills sets and updated curriculum content. Structural adjustment at the regional level mainly relates to the relative decline of agriculture as a proportion of GDP and an increase of the service industries (tourism, retail, business services and transport and distribution). In this respect, Tajikistan differs in that the agriculture sector has varied little as a value added sector while the industry sector has declined more than the other economies of the region.

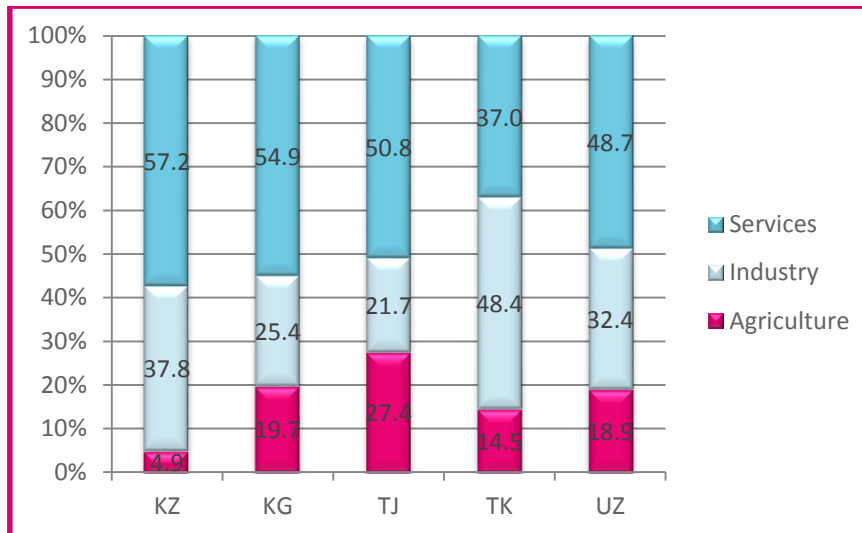
**FIGURE 1.7 GDP BY SECTOR (VALUE ADDED, % OF GDP), 2000-12/13 CHANGES**



Source: ETF calculations based on World Bank data

Agriculture continues to play an important role in the economy of the region and the sector creates more than 14% of the total value added production in all countries except Kazakhstan (4.9%). Correspondingly, industry represents between 22% (Tajikistan) and 48% (Turkmenistan) of GDP, while services account for more than half of all GDP in three of the five countries (Kyrgyzstan, Tajikistan and Kazakhstan).

**FIGURE 1.8 GDP BY SECTOR (VALUE ADDED, % OF GDP), LAST YEAR AVAILABLE**



Source: World Bank

## 1.4 Capacities for change

The region contains significant capacity for change. The countries have made multiple adaptations in the past two decades. However, the capacity for change is not uniform. Differences in the systems' sizes reflect differences in the potential for change. Each system faces challenges that place pressure on existing physical, administrative and financial structures, which in turn lead to different impacts on the achievements of the sector.

In addition to the demand for increased employability in skills and responsiveness to business there is also an emerging need for flexibility. This will require sustained foresight by government authorities to identify forthcoming challenges and increased evaluation abilities to draw the appropriate lessons from past policy experiences.

Contributors to change involve both the financial and institutional resources available in the region. There are disparities in the financial resources that are available. In terms of institutions, the systems have organisational capacities to plan and implement initiatives, but these are also not uniform in the region. Budget constraints are strongest in Tajikistan and Kyrgyzstan. Beyond resourcing issues, the main constraints to capacities relate to business education co-operation and to institution co-operation across different sectors of education. Of these, the first would be the principal barrier.

The limitations are not policy development constraints but rather practical issues related to implementation within the institutional frameworks of the systems.

At the national level, the constraints tend to include both vertical and horizontal co-ordination issues such as interdepartmental co-operation or intra institutional communication up and down the policy – implementation chain. Some implementation pathways are more effective than others, e.g., changes that require significant co-operation between education and business take longer to complete than when each are able to pursue their objectives independently.

However, in some systems, complex co-operative practices are well established and work to the benefit of both business and education e.g., the region has established arrangements for supporting enterprise placements of vocational students with tri-partite contracts between students, schools and enterprises. Similarly, there are good examples of teaching practice, school management and local innovation.

In this respect, there are opportunities to identify and promote more case studies of good practice as an aid to implementation.

International relations, whether at organisational or state level have also contributed, e.g., relations with the EU and the systems of the region have introduced ideas about qualifications frameworks. Similarly, each country tends to maintain a network of international links. These include European and Asian countries, e.g., Germany, Japan, and South Korea, from which ideas on change can emerge. An example of this is the dialogue found across the region on the possible development of the German 'dual system' as a model of vocational education.

## 1.5 Action and progress

All countries have formulated and updated development strategies for VET since 2010. These have a clear and long-term focus on relevance. The need to adjust vocational content in consultation with the business community is well recognised as a permanent influence on vocational education.

VET has been enhanced in several new directions in the region. Firstly, there is a strong focus on VET for employability for the labour market rather than for single specific occupations; in recognition of occupational mobility, vocational curricula has been broadened to include a range of general as well as vocational content in order to provide the basis for continuing learning among VET students. During the last decade the vocation education sectors of the region have been evolving from a sector that frequently serves social protection issues to one with the potential to make a broader contribution to social and economic development. In most systems of the region VET is not regarded as an isolated sector, but as part of education systems that are developing structures or processes, which aim to encourage continuous learning. Across the region, the sector is becoming more complex and the countries have developed and consolidated their capacities to develop and manage VET.

Since 2010, the VET systems have largely maintained or increased their share of students reflecting a growing status, partly as result of improving relationships between the school and eventual employment destinations.



## 2. EFFECTIVENESS AND EFFICIENCY IN ADDRESSING ECONOMIC AND LABOUR MARKET DEMAND

### 2.1 Economic factors shaping demand for vocational education

The main factors influencing demand comprise structural adjustment developments and population issues. There is not a consistent pattern of skills demand across the region, but instead there appears to be a mosaic of several patterns influencing the demand for skills.

**TABLE 2.1 LABOUR MARKET INDICATORS, LATEST AVAILABLE YEARS (%)**

		KZ	KG	TJ	TM	UZ	EU-28 average
Activity rates by sex (15+)	<b>Total</b>	71.7	64.2	50.1	60.6	60.8	57.6
	<b>Female</b>	66.8	51.8	38.4	46.4	47.6	51.2
Employment rates by sex (15+)	<b>Total</b>	67.9	58.8	44.3	54.0	54.0	51.4
	<b>Female</b>	62.5	46.9	34.4	41.4	42.4	45.6
Unemployment rates by sex (15+)	<b>Total</b>	5.3	8.4	11.5	4.0	0.4	10.8
	<b>Female</b>	6.5	9.5	10.5	2.3	M	10.8
Youth unemployment rates by sex (15-24)	<b>Total</b>	3.9	17.6	16.7	M	M	23.4
	<b>Female</b>	5.1	20.1	13.7			

*Note: TJ – population aged 15-75; TM and UZ (activity/employment rates) – estimates; TM and UZ (unemployment rates) – administrative data, population age range unknown; M – missing data.*

*Sources: National statistical offices (TM and UZ activity/employment rates – ILO; UZ unemployment rates – Laborsta).*

The data indicate differences between countries across the region, with some areas having higher activity rates. Kazakhstan has an activity rate of 71.7%, Kyrgyzstan 64.2%, Turkmenistan and Uzbekistan 61% and Tajikistan 50.1%. Female labour force participation rates range from 38% in Tajikistan (2009) to 67% in Kazakhstan (2012).

Total employment rates in the Central Asian countries range from 44.3% in Tajikistan to 67.9% in Kazakhstan. The latest data compared to the TRP 2012 results, show slightly increasing total employment rates in Kyrgyzstan and Kazakhstan, while female employment rates have decreased. This compares with a stable situation for women in the EU coupled with slightly decreasing total employment.

Official national data show the highest regional unemployment rates for Tajikistan (11.5%), but this figure is less dramatic when viewed against the EU average of 10.8%. Turkmenistan and Uzbekistan, in particular, have very low rates.

Analysis of unemployment rates also shows that females experience higher unemployment than males in these two countries, while rates are lower in Tajikistan and Turkmenistan. The figures also indicate that the significantly higher female participation rates in Kazakhstan reflect the general pattern of higher demand in this labour market than in other parts of the region.

Job creation trends in the region are mixed. Employment in Uzbekistan has grown at an average rate of 2.87% per year since 1996, while the working-age population has grown at an equivalent of 2.63% per year. In Kyrgyzstan, however, formal job creation has remained at below population growth (formal employment rates grew at an average rate of only 0.14% per year, while the population grew at a rate of 1.2% per year between 1996 and 2012) and the number of individuals entering the labour market is disproportionately larger than formal job creation here.

Labour demand from both the formal and informal sectors in Tajikistan has grown at an average rate of 2.84% per year since 1996, while the working-age population has grown at an equivalent rate of 2.8% per year, resulting in nearly 1 million additional jobs in the last decade. However, the population has increased by 17% since 2006, while formal employment rose by only 10% (World Bank, 2014a). Women’s unemployment followed these negative trends in Kyrgyzstan, whereas there was positive change in Kazakhstan (+4.4%). Youth unemployment is higher in Tajikistan and Kyrgyzstan than in Kazakhstan.

Productivity in Uzbekistan has grown significantly in the last decade with output per worker up by more than 4% per year between 2000 and 2011. Across the region and even in Tajikistan, which continues to lag behind the other countries, productivity grew by more than 50% between 2000 and 2011 and by 32% since 2005. Kyrgyzstan also has seen slow growth in productivity (World Bank, 2014a).

Formal employment contracts are not comprehensively available to the entire labour force. Informal employment is a major part of the working population in all countries: 60% in Tajikistan, 70% of the active labour force in Kyrgyzstan and a significant proportion of employment in Uzbekistan.

This has a subsequent effect of entrenching informal employment – a process that has the potential to weaken the skills base of the labour force over time by giving the informal economy a stronger influence over the labour force. The impact of the informal economy may have disproportional effects on various groups particularly in the agricultural sector.

The services sector is the largest sector by employment in Uzbekistan, Tajikistan, and Uzbekistan.

**TABLE 2.2 EMPLOYMENT BY SECTOR (%)**

Country	Agriculture	Industry	Services
Kyrgyzstan	27	17	56
Tajikistan	35	19	46
Uzbekistan	22	14	64

Source: World Bank, 2014a

Skills demand is still mainly in the area of generic service-orientated capacities, involving communication, teamwork, ICT and business technologies in general. Across the region as a whole, the matching of supply and demand is uneven, as there do not appear to be sufficient employment opportunities in the pipeline of economic development to absorb the growing labour force. Differences exist between and within countries.

That employers report the inability to find employees with the skills they require suggests that skill gaps are mainly sectoral with dynamic areas, such as oil and gas and construction and transport, existing alongside weaker areas, such as agriculture and the public sector.

**TABLE 2.3 PERCENTAGE OF EMPLOYERS REPORTING ACCESS TO SKILLED WORKERS AS A CONSTRAINT ON BUSINESS (%)**

Country	Percentage of employers
Kyrgyzstan	20-30
Kazakhstan	50-60
Uzbekistan	30-40
Tajikistan	30-40

Source: World Bank, 2014b

VET policy can contribute to the resolution of these constraints but other policies related to business development also have a role to play. In these terms, resolution of the labour market challenges in the region involve strategies that could be referred to as a 'Skills Plus' challenge, where vocational education can help resolve some, but not all, and need to be combined with other policies.

Employment growth is among the biggest challenges and has several dimensions, including job creation, employment mobility and the reduction long-term unemployment. This suggests that in the medium term at least there will be a continuing important role to play by governments in steering skills and employment policy, including the link between migration and employment.

A further influence on skills demand is the ongoing development of the small business sector. This is one of the stronger trends across the region that is making an ongoing contribution to GDP and employment in all of these countries.

The small business sector represents an important development area across the region, accounting for over 90% of enterprises in Kazakhstan and approximately 75% of employment in Uzbekistan, and 41% in Tajikistan. The growth stems from both positive and negative effects of the adjustments in individual economies, with positive trends largely generated in the shift from large-scale and publically coordinated enterprises.

As was highlighted in the 2012 Torino Process report, two broad categories are accounted for within the development of small businesses: the first with a clear economic and profit-related purpose and the second in the creation of micro-enterprises where no formal opportunities exist.

The first group of small businesses are found in all sectors across the region, but they are particularly strong in the service sector, especially in the form of business and commercial services, personal, tourist, retail and information technology services. Small and medium-sized enterprises have provided employment growth in all four countries and their numbers have grown over the past decade.

While making large contributions to GDP in all the countries, this group is unevenly catered for by VET in the region and growth of the sector has not been fully reflected in reform strategies, although small business training and support services are available to some degree in all countries. These include initiatives in the formal sector, such as curricula-content measures relating to running a small business, as well as start up support services to new and recent graduates or the unemployed (e.g. loan assistance and micro credits are provided in Uzbekistan and Kyrgyzstan as small business start-up measures). Measures also exist in the non-formal sector, such as community-based initiatives, the many diverse programmes conducted by chambers of commerce and industry associations and internships developed between schools and enterprises.

The skills demand of such businesses is for broadly skilled individuals with a specific mix of occupational and generic skills combined with entrepreneurial abilities. This process is creating two particular skills needs: the adjustment of vocational curricula to incorporate and teach such skills, and the development of delivery mechanisms to offer employees or students skills acquisition

opportunities. However, it is not entirely clear whether business-education cooperation in either initial or continuing VET systems is being organised to deliver training for or to small businesses.

The second small business trend is the ongoing development of micro enterprises initiated in the absence of formal or concrete employment opportunities. The skills demand issues associated with this group of enterprises are related, although not identical to, that of the first group. Skills demand issues here are more concerned with access to the system than content, as employees in these enterprises need to be linked to the formal training system.

This situation suggests the need for more advisory and recognition systems to validate non-formal and informal learning, especially in agricultural and rural areas.

Structural adjustment as a whole appears to be creating a qualitatively different skills demand for some sectors, but not enough posts are being created to replace the previous employment patterns in the labour force.

## 2.2 Matching mechanisms

Matching mechanisms between the skills supply side (broadly represented by the education and training sector) and the demand side (represented by the business sector) exist in different forms across the region. There is clear view in all countries of the need to match the skills of job seekers with available vacancies patterns, but, as was the case in 2012, there is so far no common approach although more urgent interest can be seen among policy makers and businesses for the exploration of possible options.

Every country also engages in labour force analyses and national planning processes that provide forecasts of the skills needs to differing degrees. These are acknowledged as useful but not sufficient to capture detailed labour force trends. National estimates are likely to be subject to substantial error, among others because of the degree of informal employment. All of the countries have renewed their national classifications of occupations and have established reporting mechanisms that attempt to identify new occupations and include these in their classifications.

Labour market vacancies are distributed to chambers of commerce and employment centres, but it is not clear what proportions of vacancies are covered by this mechanism. Further scope exists in all the countries for improved cooperation with employers and for the distribution of geographic or industry trends in vacancies by the education and labour ministers.

Kazakhstan, Kyrgyzstan and Tajikistan are working on national and sub-national collaborations such as sector skills councils that are currently at different stages of development. In Kyrgyzstan, seven sector councils are being developed. These include, light industry, construction, agriculture, tourism, services (food service), energetic and the mining sector.

Uzbekistan is also exploring this issue within the broader concept of business-education relations, concentrating on the involvement of the chamber of commerce and the national centre for specialised secondary professional education.

Additional strategies to identify emerging labour force skill needs commonly focus at local and regional or sectoral levels. These range from programmes based on local demand in regional training centres in Tajikistan, to cooperation mechanisms for new or existing workers involving local chambers of commerce and Ministries of Labour and Education in Uzbekistan. Other mechanisms include the use of vacancy or job fairs where employers promote opportunities to graduates and local cooperation arrangements between schools and enterprises.



Networks of training centres exist in all countries. These take different forms with some operating as an instrument of the Ministries of Labour and others being associated with different line Ministries according to sector speciality, e.g., a training centre transport in the Ministry of Transport, or Tourism in the Ministry of Tourism. These institutions supplement the provision offered through Ministries of Education. They frequently concentrate on adult learning and short courses. As identified in the 2012 Central Asia region report all systems are providing short courses to meet labour needs by people seeking to requalify or update their skills in the labour market.

## 2.3 Potential of the vocational education and training system to influence economic and labour market needs

VET system potential to shape demand varies across the region, partly in relation to the ongoing development of business-education relationships. Labour force distribution of employment in general tends simply to follow employers demand for employees rather than there being any influence exerted by the skills supply from training or education providers. Nevertheless, there is some scope for the availability of provision to effect changes of expectations among employers.

Where employers have confidence in the availability of relevant skills – particularly within regional labour markets – they can be encouraged to plan for vacancies in the knowledge that there will be recruits available. This effect tends to be strongest where flexibility is inherent within the local curriculum and where such initiatives are combined with local cooperation arrangements. This trend is stronger in 2014 than in 2010 throughout the region, with significant initiatives in flexibility in Kazakhstan, Uzbekistan and Kyrgyzstan.

The extent of this reciprocal impact on demand from the supply side is unmeasured in the reports, but there is great potential for this in sectors such as tourism and transport, particularly in some rural areas where the two levels of investment could be compensated for by better local market information.

VET systems can also influence demand to some extent by supporting entrepreneurial development through the provision of small business training. This is potentially valuable, particularly in areas where the training offers recruitment and human resources skills. When these approaches are incorporated into business processes, the quality of hiring practices and the subsequent use of skills in employment improve. For VET to influence skills demand, potential users need to be aware of the kinds of skills and services available to them and how they can use the skills.

Further scope for service innovation in the region is suggested, notwithstanding the already growing diversity of services and short courses offer a clear area for development. In addition to relevant full qualifications at initial or continuing levels, employers and individuals have a need for smaller particular sets of skills to augment their existing competencies, allowing individuals or enterprises to acquire some of the skills of an occupation without full occupational training. Public and private sector providers throughout the region have been developing short courses since before 2010. The greater visibility of these within the formal sector may draw more employers into a closer relationship with education providers. Despite the growth of short courses in all courses, no institutional development has occurred to incorporate them in the broader education sector.

## 2.4 Action and progress

Demographic pressures may be interpreted as a leading influence on unemployment in the region. Limitations in data and institutional cooperation between relevant ministries, such as Ministries of Labour and Education continue to constrain progress. Considerable efforts have been made to improve communication and inter-departmental cooperation but more sustained efforts are necessary.

Similarly, the extent to which career guidance is used is not clear, and this approach could be used to support students in selecting vocational disciplines in combination with qualitative employer surveys or a vacancy index developed from newspaper advertisements.

The current VET sector mainly addresses labour supply and VET has been an innovative sector in all countries. Many opportunities exist across the region for the review of successful areas and the sharing these; an approach that could be furthered through a research programme to analyse and disseminate these results in the region.

# 3 EFFECTIVENESS AND EFFICIENCY IN ADDRESSING DEMOGRAPHIC, SOCIAL AND INCLUSION DEMAND

## 3.1 Demographic factors

The region is significantly affected by both intra-national and international migration and, as was noted in the 2012 report. Migration offers a partial solution to employment problems in the region, by promoting mobility between labour markets with few jobs to those with more. Remittances provide another line of support, boosting the purchasing power of households and regions. Conversely, however (in the case of rural to urban internal migration in particular) there can be increasing pressure on families and public and social services such as schools.

As was highlighted in the 2012 Torino Report for Central Asia, parts of the region show significant mobility.

Labour migration is one of the key trends of Central Asia and is often an option for workers who are unable to find a good job in their home country. The receiving countries are Russian Federation and Kazakhstan. Kyrgyzstan, Tajikistan and Uzbekistan are generally sending states.

Uzbekistan<sup>3</sup> is estimated to have 2 million citizens living abroad in 2010. The vast majority of external migrants work in the Russian Federation, with a smaller group in Kazakhstan. The Russian Federation currently hosts over three-quarters of external labour migrants from Uzbekistan (86%). Kazakhstan, the second most important host of labour migrants, accounts for 12% of Uzbek migrants.

The total number of migrants from Tajikistan is approximately 1.3 million with about 85% going to Russia. International migration rates are exceptionally high in Tajikistan – more than one in three men aged 20–39 in Tajik households are currently abroad. The main reasons behind migration to Russia and Kazakhstan are labour demand issues, related cultures and shared languages.

Regional cooperation agreements permitting visa-free entry have contributed to the Russian Federation being the primary destination for Tajik labour migrants. Most Tajik labour migrants work in construction, trade, housing and cleaning services, agriculture, and maintenance. The receiving countries are able to meet their labour force needs and the migration serves to distribute employment across the region and through remittances the incomes and salaries. However, the sending countries face difficulties associated with reintegration into the domestic labour force on return.

Contrary to Tajikistan, migration is receiving less political attention than in Kyrgyzstan, although migration from Kyrgyz is growing. Possibly as many as 500,000 people from Kyrgyzstan are involved in migration.

The relatively high external mobility of the labour force in the region is not mirrored by similar levels of mobility within the national labour market of each country. Women are more likely to migrate domestically, while men are more likely to migrate internationally. For youth, in particular, migration is viewed as an opportunity to find a job and obtain experience and skills. Migration trends in urban and non-urban areas are also associated with these developments in skills demand. The growth of urban economies tends to support human capital development in cities over the rural or agricultural sector.

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<sup>3</sup> Emigration in Uzbekistan is more than double the world average (3.2%) and twice that of other middle-income countries (2.7%), yet lower than that of Europe and Central Asia as a whole (10.7%).

**TABLE 3.1 PERCENTAGE OF POPULATION AGED 18-64 THAT WOULD MOVE INTERNALLY FOR EMPLOYMENT REASONS (%)**

Country	Percentage of population
Kyrgyzstan	25
Kazakhstan	20
Uzbekistan	18
Tajikistan	14

Source: World Bank, 2014b

Notwithstanding the extent of migration, the region has few mechanisms to maximise the skills transfer benefits from migration or mobility. There are discussions related to validation of prior learning, but there has been no systemic approach developed in any country.

### 3.2 Delivering to individuals

Initial level VET is provided free of charge across the region, building upon high literacy rates and the universal availability of general education. In addition, initial VET includes assistance such as meals and accommodation for students who need to travel to participate.

The status of VET differs between the countries, particularly in relation to higher education and to a lesser extent in general education. However, VET is perceived as a pathway to the labour market in all countries. This perception is strongest in Uzbekistan, where VET accounts for the largest part of the specialised (or senior) secondary education population, comparing favourably with general education in terms of status and offering a high employment record for graduates. Kazakhstan also performs well in this respect.

In Kyrgyzstan, the sector is beginning to attract new students as the result of higher employment outcomes and preferential access to higher education for secondary VET graduates. There is a large difference between initial VET and secondary vocational education in Kyrgyzstan with the latter delivering better outcomes labour than the former. The number of people undertaking initial vocational education in Kyrgyzstan has remained stable since 2006 (at around approximately 26,000) while the number in secondary VET has more than doubled from 41,000 to over 93,000 in the same period.

In Tajikistan, the growth of the VET system has strongly focussed on adult education and the provision of short courses, with initial VET playing a restricted role. In Tajikistan, the Government unified the responsibility for the two forms of VET delivery under the Ministry of Labour, Migration and Employment. This may lead to increased coordination and cooperation of the two sectors.

The short courses directly support labour migration patterns of individuals. One positive development within the Tajik system has been a move towards the creation of competence centres aimed at developing the skills of adults, particularly in rural areas. This could also serve as pilot for other rural areas across the region. Although access to VET is universal at initial level, differences exist at the level of adult learning across the region. Access is generally provided to training for requalification for unemployed workers but adult learning beyond this is generally available only on a fee-paying basis. Aside from continuing VET, there are differences in the availability of other forms of adult learning between the countries.

Career guidance is one particular area with large potential benefits for stakeholders, as this strand could support better career choice and improve student knowledge of potential future occupations. Systems exist in the region, but there are large differences between the countries. The extensive scope for business-education cooperation is reflected in the need to update and modernise career guidance services and facilities.

VET supports further employment and growth and as a form of a social safety net, with demographic pressure underpinning this dual role for VET throughout the region. The greatest impact of this pressure falls upon young people attempting to enter the labour force, but older workers also feel the force when mid-career employees are forced to acquire new skills or when older workers seek to maintain contact with the labour force.

The pressure is felt differently by certain sub-groups such as women, ethnic minorities and migrant workers, rural and agricultural workers, and people with disabilities.

Three of the Central Asian countries (Kyrgyzstan, Tajikistan and Kazakhstan) are characterised by an increase in total dependency rate.

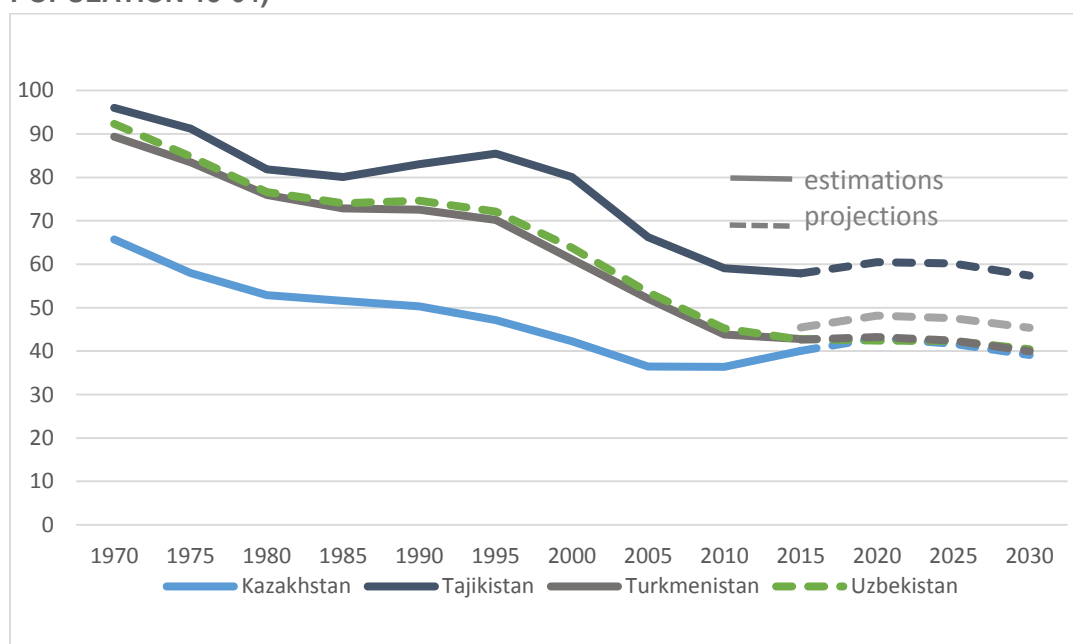
**TABLE 3.2 DEPENDENCY RATES, 2013**

	KZ	KG	TJ	TM	UZ
Total dependency rates (%)	48.0	52.7	64.1	48.3	49.0
Change since 2012 Torino Process	3.2	0.6	0.2	-1.6	-3.4
Youth dependency rates (%)	38.1	46.4	58.9	42.2	42.6
Change since 2012 Torino Process	3.3	1.3	0.3	-2.1	-3.4

Source: World Bank

Youth dependency rates follow the same trends.

**FIGURE 3.1 DEMOGRAPHY – CHILD DEPENDENCY RATIO (% OF 0-14 PER 100 WORKING AGE POPULATION 15-64)**



Source: UNDP, World Population Prospects: The 2012 Revision; Medium variant

There is consistency in the experience and profile of these policy challenges across the region and with few exceptions, the policy response is similar. Differences in impact are largely due to the resources available to each government, more generally the strength of each economy, as well as geographic factors and population size. Beyond these issues, there are many commonalities; there is scope for significant policy sharing between the countries.

### 3.3 Delivering to socio-economic and inclusion demand

There is also a general consistency of approach across the region in terms of the orientation of VET, and all of the systems support programmes for minorities and vulnerable groups. While there is no common policy as such, all countries appear to use a similar series of criteria to provide services for the disabled, specialised schools, teaching and learning in native languages.

Gender engagement is equitable in terms of participation at compulsory school age and this is strongly supported in all countries. Differences do however seem to exist in terms of gender segregation within some systems that tend, consciously or not, to divide students into apparent male (automotive) and female (textile and community services) vocations.

World Bank figures indicate that in Tajikistan and Kyrgyzstan there are significant differences in incomes between male and female workers, with 25% and 80% respectively of lower incomes for women being attributed to gender (World Bank, 2014b).

From 2010, the national language of each country has become increasingly important in the education system following several years of incipient change. The systems of the region are all inclusive systems and the differences that do exist are largely due to variations in expenditure and system size that reflect the individual challenges of each country. The most significant issues relate to rural areas across the region where the systems are most tested in their ability to reach disadvantaged youth and communities.

### 3.4 Action and progress

VET has maintained its inclusive character as part of national social protection systems and most countries have programmes targeting groups with specific needs. There appear to be resource constraints in this area in general, but the information available on this matter is not clear. However, the strength of each system as an instrument of inclusion is dependent on their economies' ability to provide employment. In this respect regions are vulnerable as each country (excepting Kazakhstan) harbours a sizeable rural population where there is need for further employment creation.

While demonstrating diversity in other respects, the systems all appear to be similar in their approaches in this area, and there is great potential for the different systems to share information as a way of supporting further development.

# 4 INTERNAL EFFICIENCY OF VOCATIONAL EDUCATION AND TRAINING SYSTEMS

## 4.1 Quality assurance

Developments relating to internal efficiency are the most active area in VET across the region and all of the countries can highlight initiatives and progress. Quality assurance, followed by employability, is the strongest policy priority in the region. There are common concerns but no common approaches established. The trend and aspiration for VET in the region is to link quality assurance to employability, ensuring that the student acquires knowledge, skills and values that are appropriate to successful engagement in the labour force because of their education.

Quality initiatives in all countries experience both input and output issues. Input issues are largely related to improvement of facilities, curricula, teacher training and methods at pre and in-service stages, while output issues cover exam results, institutional monitoring and feedback from stakeholders such as businesses and parents, as well as inspection practices.

All countries are designing new institutions that will have a role in improving quality assurance. These include the Kasipkor holding company in Kazakhstan, the National Council for Accreditation in Kyrgyzstan and new methodological centres in Uzbekistan and Tajikistan. Each of these institutions is oriented differently, with Kasipkor and the National Accreditation Council focussed on external provider issues, while the methodological centres aim to strengthen VET systems by improving the quality of provision through improved teaching and infrastructure. Improved employer involvement in the assessment of competence is a key issue and employers have a stronger role as a result. Kasipkor has an explicit objective to enhance cooperation between education and business.

Qualifications are generally strong within each system and they are viewed as a meaningful completion point for initial VET in all countries, and additionally for secondary VET in Kyrgyzstan.

The status of the public certificate or diploma has been maintained and is generally considered a benchmark qualification for the VET systems. Each country also has several non-university post-school qualifications or certificates that form part of vocational training. These are unrelated to the main vocational qualification in each country, which tends to be the secondary school qualification issued by the Ministry of Education. These other qualifications or certificates are issued either by the Ministry of Labour or by adult learning centres. Only limited efforts are being made to bring these various certificates under a common national qualifications framework.

All of the countries have been considering a national qualification framework, but the concept has developed slowly. Progress has been made towards a sectoral qualifications framework for teachers including a national assessment scheme in both Kazakhstan and Uzbekistan. The delay is partly a result of the different drivers of change, where internal system developments (government initiatives) outweigh pressures from external sources (such as employers) and an absence of the evaluation of student outcomes and experiences.

The issues of the availability of different types of qualification, how they relate to each other and the different labour market opportunities they offer is expected to become a key policy issue in the region in the near future.

Each country has its own quality assurance management systems with significant differences in how transparent the quality assurance system is to users and or how far it is an integral part of the work of providers within the systems.

Although VET schools increasingly perform self-assessment of quality and performance, there are no regular published assessments of the vocational school systems of the region. This situation also reflects an approach to quality that generally focusses on teaching, teachers and school directors as a principal point of reference. Inspection practices tend to be oriented towards adherence to administrative and quantitative performance rather than qualitative results.

Quality assurance is supported by legislation in all of the countries and clear roles are attributed to institutions. Systems in the region in general have had an inputs approach to quality assurance but they have been moving towards an outcomes based approach to vocational content in the use of occupational standards over the past decade, and particularly since 2010. All countries have identified outcome-oriented targets for assessing improvements in quality as part of their long-term VET strategies.

Scope exists to review the existing quality assurance arrangements of the systems of the region.

## 4.2 Policies for teachers and directors

Initiatives on the professional development of teachers and school management have been underway across in all countries the region for several years, reflecting a view of schools as a key component in the development of improved labour force capacities.

Developments can be seen in teacher salaries, training (both in-service and pre-service), the recruitment and appointment processes used in the education systems and the creation of school boards.

The focus on teachers has been prompted mainly by pressure resulting from expansion of the VET system creating a shortage of experienced teachers in schools across all the countries. More importantly, there is a shortfall of 'masters' in terms of experienced practitioners able to provide practical instruction in an educational environment. The issue has been present for several years and is expected to continue, particularly for newer occupations where schools are often unable to access experienced professionals.

Rapid expansion of the pool of VET teachers and ensuring the full development and training of new staff leads to some policy dilemmas. Abbreviated approaches tend to encourage the use of general education teachers in VET schools, particularly where the curriculum includes general education components. Particular issues for development and individual challenges exist in the three broad areas of: pre-service training, in-service training and training for teachers in CVET.

To date, the strongest and most systematic initiatives have occurred in initial vocational teacher training. There is a clear trend towards improving the level of qualifications held by teachers and progress is continuing in the region. Kazakhstan and Uzbekistan have been increasing the proportion of teachers with higher qualifications.

## 4.3 Teaching and learning

Clear movements and achievements can be seen in teaching and learning, reflecting the growing demand for improvements in the quality of teachers and schools. The main trends across the region are threefold: a stronger focus on active learning, the use of outcomes in curriculum and assessment and the renovation of practical facilities. The achievements are not comprehensive – either across the region or in each country, but there are improvements that are likely to continue.

Over the past decade, all countries have made progress in referencing their curricula to employment requirements. The increased engagement between providers and the business sector, coupled with greater local level involvement in all countries, reflect a stronger concern for employability in open



labour markets. Greater emphasis is now being placed on the local curriculum and partnerships with employers, encouraging them to provide workplaces for apprenticeships and internships. Kazakhstan differs in that it is developing this strand through a national approach.

Movement towards a broader VET concept is also evident, with students experiencing a broad-based curriculum that includes generic competencies and languages as well as work skills (Uzbekistan) or students undertaking a combination of general and vocational courses (Kyrgyzstan). The impetus behind this stems from two sources: increasing demand for further education and recognition of the likelihood of employment mobility (learning for employment in an industry, sector or group of sectors rather than a specific occupation).

Greater attention is being paid to the quality of learning environments in vocational institutions in terms of the facilities and equipment available to students, the materials needed for classes and practical demonstrations and school supplies. Improvements in quality is being supported by closer cooperation between schools and enterprises in all of the countries, but particularly in Uzbekistan and Kazakhstan.

This is also fed by the desire of students and teachers for the use of more active methods of content delivery in schools and approaches to assessments that are valid in the perception of employers. Similarly, parents are exerting an influence on the education systems of each country through representations at school level. This is creating increased pressure for school performance and accountability. The development of school boards, particularly in Kyrgyzstan and Kazakhstan, as well as associated mechanisms in other countries involving parents and local businesses are facilitating stakeholder engagement. Because of such involvement, there is a strengthening trend towards monitoring of progress and accountability.

Differences in progress arise from the relative size of the Uzbek and Kazakh systems when compared to those of Kyrgyzstan and Tajikistan. In-service training systems are strongest in Uzbekistan, Kazakhstan and Kyrgyzstan (for initial VET), although they seem to be more supply than demand-driven. Tajikistan, which has a small vocational sector in secondary education, faces challenges in growing its system quickly. The new Tajik methodological centre established under the Ministry of Labour may give impetus to in-service teacher training.

All countries have established systems for teacher recruitment and training and the appointment of school directors. Current challenges relate mainly to process co-ordination and management with progress affected by different issues dependent on country context, largely because of resource availability and the varying capacities of teacher training institutes. All of the systems are facing steep challenges – either due to the size of the system (Uzbekistan or Kazakhstan) or the extent of the changes to be undertaken (Tajikistan – currently upgrading VET from a minor role into an increasing role in education).

Internet use as a curriculum tool exists in all countries to some extent. Variation in use is contingent on the wider use of and infrastructure for the internet in the country. For instance, while it is widely used in education in Uzbekistan and Kazakhstan (which aims to have 90% student use of the e-learning system by 2020) where there are dedicated school networks, this is not as common in Kyrgyzstan and only limited access is available in Tajikistan where usage is dependent upon the individual school.

## 4.4 Efficiency in resource use

It is not possible to verify whether efficiency of operations is being assessed at the system level in order to ensure optimal resource allocation. Monitoring does occur in all systems and Kyrgyzstan has explicitly emphasised monitoring as part of the Education Development Strategy. However, the assessment and monitoring that take place is often focused at component level rather than system level, meaning the focus is largely on the teachers.

The destination of students following graduation is commonly used as an indicator, for example, Uzbekistan uses the employment of graduates from specialised secondary professional education as a key indicator. This is also the case for Kazakhstan, where the percentage of vocational graduates in the first year in the labour force is being used as a measurement in the education development plan. A system of tracer studies is expected to be mainstreamed in Kyrgyzstan in 2015-16.

As part of broader system expansion, Tajikistan is placing stronger emphasis on modular programmes that will greatly assist the distribution of vocational programmes in the country.

VET is increasing in the region even in areas where resources are scarce.

**TABLE 4.1 EDUCATION EXPENDITURE, LATEST AVAILABLE YEARS**

	KZ	KG	TJ	TM	UZ
Public expenditure on education (% of GDP)	3.1	6.8	4.9	M	M
Public expenditure on education (% of total government expenditure)	13	18.7	17.9	M	M
Public expenditure on VET (% of total expenditure on education)	6.9	5	3.8	M	24

Note: M – missing data.

Sources: World Bank, national statistical offices, Unesco Institute for Statistics, Torino Process reports, education ministries, finance ministries

Public expenditure on education accounted for between 13% of total government expenditure in Kazakhstan to 18.7% in Kyrgyzstan.

Most countries have increased expenditure on VET in the last two years and they are expected to continue this trend into the future. In some areas, particularly in the context of secondary VET, public financing is being supplemented by private resources and fees. Examples of this include Kyrgyzstan, where the government revoked a rule that levied a 20% tax on all private income generated by secondary VET colleges in 2012, and Tajikistan where more of the practical training is being shifted onto enterprises.

Efficiencies may be easier to obtain in the larger systems that are better able to take advantage of economies of scale in their infrastructure investments. These systems will also find it easier to expand from initial VET to a stronger role for continuing vocational training as they have better access to building and facilities and a VET labour force that can also be used beyond initial VET.

The per capita funding initiatives identified in the 2012 report have not progressed substantially in the region. Budgets maintain a focus on the three traditional areas of salaries, operating costs and infrastructure with limited funding for research and innovation. The region as a whole has high literacy rates and strong participation levels in secondary education, which should enable further development of the national systems.

## 4.5 Action and progress

Extensive progress has been made in the development of more efficient VET systems since 2010, reflecting the growing capacities. Although some systems have progressed more clearly than others have, development has been achieved in all systems. The challenges relate to the targeting and use of resources, generally in terms of planning and implementation issues. Most of the systems have extensive experience in planning.

One possible innovation that could be examined further would be the development of more devolved planning systems enabling sectors to respond to business requirements and emerging student needs.

Given the degree of mobility in the region, there is greater scope for the use of information on particular circumstances and contexts. Something along these lines is already present in areas with greater flexibility, such as local curriculum content and short courses. More adaptive planning may enable the various systems to maximise and distribute the benefits of changes introduced more broadly. It could also assist with the spread and introduction of innovations.

Key areas for further development include the modernisation of in-service teacher training, updating of school inspection systems and further development of a national qualification framework to facilitate greater cooperation and efficiency between the various parts of the education sectors. This approach could potentially support efficiencies between the education systems in the region, overcoming some of the current limitations on policy cooperation initiatives between the different countries and approaching overlapping issues, particularly that of the transnational labour markets.



## 5. GOVERNANCE AND POLICY PRACTICES

### 5.1 Defining vision

All of the countries have mechanisms and institutions to support policy development and implementation. These vary from the comprehensive specialised centres in Uzbekistan and a VET department in Kazakhstan with supporting institutions such as the Kasipkor, to the smaller specialised VET Agency of Kyrgyzstan and the sharing of responsibilities in different centres and departments in Tajikistan.

No single model prevails in the region. In some countries, policy formulation favours the education sector and the secondary education sector within that, while post-secondary education has a stronger place in others and the Ministry of Labour has greater policy-making involvement in some. In Tajikistan, for example, responsibility for initial VET was transferred to the Ministry of Labour, which created its own methodological centre separate from the centre already established in the Ministry of Education. Gaps exist in administrative accountability and resource availability plays a key role in shaping the effectiveness of the institutional framework for establishing and monitoring quality standards in each country.

All countries view VET as a contributor to continuous learning and they have all developed long-term plans for the sector. The private and non-government sector tends not to have a major influence on policy development, which is generally handled within the government sphere. In Uzbekistan and Kazakhstan, however, there is growing scope for think tanks such as the Centre for Economic Research in Tashkent and the Kasipkor in Astana to formulate options and suggestions that have the potential to be influential. All countries have established clear responsibilities and accountabilities for performance across a mixture of national, regional and local authorities. Planning (including resourcing), examinations and teacher development are mainly directed by national authorities with co-ordination of implementation reliant more on local authorities and regional agencies.

The public authorities in each of the countries have a vision and perspective on vocational education that is growth oriented and progressive. Although these are informed by the business sector, they are not led by the business communities and there is a gap in all countries for closer incorporation of the private sector in the regulation of vocational education.

### 5.2 Effectiveness on economic demand

The extent to which the VET sectors are effective in terms of economic demand is not quantified in reports at the national level. However, the two largest systems can probably identify themselves as being effective on this score, but Kyrgyzstan can also point to the relatively higher employability rate of initial VET graduates and the increasing demand for secondary VET as indicators of ability of the system to service demand.

There are significant differences within each country in relation to urban and rural conditions and all of the systems in the region are likely to experience sustained pressure in the medium term. Similar variations are reflected in the ability of the different systems to support and maintain social inclusion across different population groups. Insufficient data is available from national reports to suggest whether the systems are under or over performing in the area of social inclusion, but it is also not clear that the effects of education can outweigh the employment effects of structural change – at least in the rural sector, where change has been slower.

This situation suggests there is potential for exploration of further institutional support for rural areas in the form of a labour market adjustment office to link business, particularly small business, employment and skills development. This could be developed regionally.

None of the systems has yet developed mechanisms to support education or labour market mobility within or between countries. Conversely, all of the countries have considered mobility tools in the context of their higher education reforms but these have not yet filtered into VET. Key areas offering opportunities include transparency mechanisms for vocational qualifications and processes for the recognition of prior learning, both of which would support returning migrants in promoting their skills on the labour market or in the education sector.

A further area that could influence social and economic efficiency would be the development of pathways and links between the various education sectors. All of the countries have some form of pathway connecting VET and other sectors but these are limited in scope or not greatly used, at least at the higher levels. The current situation may inhibit the ability of people to progress in skill development and challenge the efficiency of the present education systems.

Planning systems vary considerably in style and scope from a nationally integrated plan approach in Uzbekistan to a more decentralised approach in Kyrgyzstan.

### 5.3 Action and progress

Governance arrangements vary across the region. Since 2010, policy development has been a strong element in the performance of the region as a whole and of some countries in particular. The 2012 report identified the increasing need for engagement between business and education as a key institutional trend in the region. There is significant inter-institution consultation during policy development for programmes and funding in the government sphere but this needs to be complemented by stronger consultation with the business sector. Some consultation already takes place through organisations such as the unions of entrepreneurs or chambers of commerce, generally leading to positive outcomes that enhance the final product. The gap between business and government on the content and delivery of vocational education has the potential to restrict labour force adjustment and potential.

This process can be expected to continue and will reinforce capacities. There is a trend towards cooperation that is more systematic and away from ad hoc arrangements. Cooperation currently appears to be strongest in the planning and review of policy development. Policy consultation could be extended to include more discussion and cooperation at the implementation stage.

Government objectives for the VET sector are transparent, as is shown by the availability of international strategic documents specifying directions and objectives. Increasing information and statistics on education are being made available, although there is still scope for further development specifically in relation to data on VET, which has been underrepresented in past studies. Combined collection of quantitative and qualitative information for policy monitoring and evaluation could support the policy cycle.

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