

TORINO PROCESS SYSTEM MONITORING REPORT: KAZAKHSTAN (2023)



TABLE OF CONTENTS

ACKNOWLEDGEMENTS	3
DISCLAIMER	3
KEY TAKEAWAYS	4
1. INTRODUCTION	5
1.1 FOCUS AND SCOPE OF MONITORING	5
1.2 COMPARABILITY AND RELIABILITY OF MONITORING DATA	6
2. MONITORING RESULTS: KAZAKHSTAN	7
2.1 POLICY AND SYSTEM PERFORMANCE IN 2023: OVERALL RESULTS	7
2.2 POLICY AND SYSTEM PERFORMANCE IN SPECIFIC AREAS OF MONITORING AND AGAINST SPECIFIC OUTCOMES	9
2.2.1 <i>Area A. Opportunities for lifelong learning: access and participation</i>	10
2.2.2 <i>Area B (1). Lifelong learning outcomes: quality and relevance</i>	12
2.2.3 <i>Area B (2). Lifelong learning outcomes: excellence and innovation</i>	15
2.2.4 <i>Area C. System organisation</i>	18
2.3 HOW DO POLICIES AND SYSTEMS BENEFIT SPECIFIC GROUPS OF LEARNERS?.....	22
2.3.1 <i>Female learners</i>	22
2.3.2 <i>Disadvantaged learners</i>	23
2.3.3 <i>Populations who are long-term unemployed, economically inactive, and have low educational attainment</i>	25
2.3.4 <i>Learners by country of origin</i>	27
3. SUPPLEMENTARY SOURCES AND INFORMATION	28
3.1 LINKS TO BACKGROUND INFORMATION AND DATA	28
3.2 DEFINITIONS, TERMINOLOGICAL CLARIFICATIONS, METHODOLOGICAL LIMITATIONS	28
3.2.1 <i>Definitions and terminological clarifications</i>	28
3.2.2 <i>Methodological limitations</i>	29
4. NATIONAL BACKGROUND REPORT AND SUPPLEMENTARY DATA	30
4.1 FOREWORD	30
4.2 OVERVIEW OF MAIN SOCIO-ECONOMIC TRENDS.....	31
4.3 OVERVIEW OF TECHNICAL AND VOCATIONAL EDUCATION	32
4.3.1 <i>Basic statistics</i>	32
4.3.2 <i>Main reform initiatives</i>	40
4.3.3 <i>Torino Process in Kazakhstan in 2023</i>	40
4.4 DEVELOPMENT OF A STRUCTURE AND NEW MODEL FOR TOOLS TO ASSESS QUALITY IN EDUCATION	44
4.4.1 <i>Survey</i>	45
4.5 CONCLUSIONS AND RECOMMENDATIONS	47

The contents of the report are the sole responsibility of the ETF and do not necessarily reflect the views of the EU institutions.

© European Training Foundation, 2024

Reproduction is authorised, provided the source is acknowledged.

ACKNOWLEDGEMENTS

This Torino Process monitoring was carried out in partnership with national authorities, experts, and stakeholders in Kazakhstan under the coordination of Ms Kalamkas Algazinoва, national Torino Process coordinator and Head of Unit in the Ministry of Education and Science of Kazakhstan.

The European Training Foundation (ETF) wishes to thank the national authorities of Kazakhstan, Ms Algazinoва, and all stakeholders for their invaluable contribution and the provision of the accurate and extensive information in support of this monitoring exercise.

This monitoring report was prepared by a team led by Mihaylo Milovanovitch, Senior Human Capital Development Expert and Coordinator for System Change and Lifelong Learning at the ETF. The report follows a proprietary monitoring methodology developed by the same team and is based on evidence collected, processed, analysed, and verified by the ETF and by national stakeholders in Kazakhstan under the overall coordination of Ms Algazinoва.

DISCLAIMER

This version of the report is preliminary. While it encapsulates the collaborative efforts and inputs from various counterparts at various stages, it awaits final verification by the participating country. Therefore, the report is to be seen as “work in progress” which may be subject to refinement and subsequent endorsement in the future.

KEY TAKEAWAYS

- **Scope of system performance monitoring:** The Torino Process monitoring covers three major areas of commitment to lifelong learners: access to learning (Area A), quality of learning (Area B), and system organisation (Area C). These areas are divided into eight monitoring dimensions: access and participation in Area A; quality, relevance, excellence, and innovation in Area B; and system management/administration and resources in Area C.
- **Access and attractiveness:** VET in Kazakhstan provides widespread opportunities for access to IVET but has lower participation among adult learners and more limited opportunities for lifelong learning beyond VET. Initiatives launched to enhance accessibility include the 'Free vocational education and training' project, aiming for 100% enrolment of young people by 2025, as well as the introduction of professional diagnostics, the cancellation of admission exams, and the validation of non-formal learning outcomes. Structural opportunities for vertical mobility are robust, though there is room to improve horizontal mobility between pathways. Both IVET and CVET are highly supportive of successful graduation, supported by state incentives and the dual education initiative.
- **Quality and relevance:** Kazakhstan's VET system delivers average foundational skills through IVET but excels in connecting education with the labour market, notably via dual education initiatives that enhance graduate employability. While curriculum development in collaboration with employers ensures market relevance, foundational education challenges persist, as seen in below-average PISA scores. The VET system also integrates digital and green skills, aligning with national standards and expanding access through projects like "Free Vocational and Technical Education for All." Employers support this by providing upskilling courses and contributing to the National Qualifications System, ensuring responsiveness to labour market needs.
- **Excellence and innovation:** Kazakhstan shows a moderate level of performance in achieving excellence in pedagogy and professional development, with weaker results in promoting excellence in VET programme content, implementation, and governance. While the VET system functions well at a practical level, more robust policies and measures are needed to elevate these areas to a higher standard. In terms of innovation, Kazakhstan's VET system reports good results across all monitoring domains, performing better than other Torino Process countries on average. However, there remains a systemic issue with the pace of implementation and the non-systemic nature of these efforts, which are often limited to promising but restricted pilots.
- **System management and organisation:** Kazakhstan excels in VET performance, surpassing the international average in all monitored domains except participatory governance and financial resources, where it achieves mid-range outcomes. The 2021 adoption of the lifelong learning (LLL) concept aims to enhance governance by engaging various stakeholders in educational policy. While Kazakhstan faces challenges with the availability and utilization of internationally comparable data, it has made significant investments in its national educational database (NEDB) to improve data management, enhancing transparency and decision-making in education. Despite these data challenges, Kazakhstan maintains a strong record in quality assurance and public accountability in VET, supported by systematic monitoring and a robust legal framework that encourages continuous improvement and alignment with international standards.
- **Quality and reliability of monitoring evidence:** The monitoring results of Kazakhstan are more comparable internationally than those of other countries in the Torino Process sample, on average. However, these results are also at higher risk of bias. Additionally, Kazakhstan tends to self-assess its VET system performance more positively compared to other countries. In fact, it is the least critical of its own system performance among all countries participating in the 2023 Torino Process monitoring.

1. INTRODUCTION

1.1 Focus and scope of monitoring

This report summarises the results of monitoring VET system performance in Kazakhstan in 2023.¹ “Performance” describes the extent to which the VET system delivers against a targeted selection of national and international obligations (commitments) to learners and other stakeholders in support of learning through life (lifelong learning - LLL). “VET system”² refers to the network of institutions, people, policies, practices, resources, and methodologies in a country and the way in which they are organised to provide individuals of any age with the practical skills, knowledge, and competencies needed for specific occupations, trades, or professions.

The focus of monitoring is on the contribution of initial and continuing VET (IVET and CVET) to the learning activities of youth and adults in any learning setting (formal and non-formal), undertaken to improve their knowledge, skills, competences, and qualifications for personal, social and/or professional reasons. The purpose of the Torino Process monitoring exercise is to provide decision-makers, practitioners, and stakeholders with a reliable basis for informed decisions about policy improvement, resource allocation, strategy design, and follow-up analysis in support of lifelong learning.

The monitoring framework which underpins this report covers three major areas of commitment to lifelong learners: access to learning (Area A), quality of learning (Area B), and system organisation (Area C). These areas are divided into eight monitoring dimensions: access and participation in Area A; quality, relevance, excellence, and innovation in Area B; and system management/administration and resources in Area C. Within these areas and their dimensions, the Torino Process tracks a total of 30 system deliverables (outcomes)³ - the extent to which they are being delivered and how equitably they are distributed to thirteen groups of learners according to age, gender, socio-economic background, labour market and migration status, and typical learning setting.

The monitoring provides information in the form of a system performance index (SPI) for each of these outcomes and learner groups they serve, to a total of 82 indices per country.⁴ The SPIs can range from 0 to 100, where 100 indicates maximum or best performance. The indices describe VET system performance in formal and non-formal learning settings for youth and adults, females and males, disadvantaged learners, long-term unemployed jobseekers, economically inactive populations, and first-generation migrants.

This report showcases a selection of key monitoring results based on those indices, as follows: overall performance by broad monitoring dimension (Section 2.1), performance by specific area and system deliverable (Section 2.2 and subsections), and performance in support of specific groups of learners (Section 2.3). These sections also provide an international average score⁵ for these results

¹ The Torino Process is a multiannual review of vocational education and training (VET) in countries in East and South-East Europe (including Turkey), Central Asia, and the South and East Mediterranean region, which the ETF is carrying out in partnership with countries in these regions on a regular basis since 2010. For more information see <https://www.etf.europa.eu/en/what-we-do/torino-process-policy-analysis-and-progress-monitoring>

² This report may use “VET”, “VET system”, and “system” interchangeably.

³ Further in the report “outcomes” and “deliverables” are used interchangeably.

⁴ In rare cases where evidence is missing, the number of SPIs for a country can be lower.

⁵ “International average” refers to the average for countries participating in the Torino Process. At the time of preparation of this monitoring report, the evidence collection for some countries was still ongoing. As additional countries complete the monitoring exercise, the international averages shown in this report may change.

for reference purposes and, where relevant, they showcase disaggregated data used to calculate the system performance indices, as well as information provided by national authorities through the monitoring questionnaire. Links to the full dataset for Kazakhstan, the monitoring questionnaire, the Torino Process monitoring framework and methodology can be found in the third section of this document.

Finally, Section 4 of the report provides an edited version of the contextual information and supplementary statistics and analysis prepared by national authorities in the context of the Torino Process. That section, as well as all background information supplied and used in this monitoring report, was prepared by “Talap”,⁶ the national coordinating institution for the Torino Process on behalf of the Ministry of Education of the Republic of Kazakhstan.

1.2 Comparability and reliability of monitoring data

The evidence for this monitoring report was collected and analysed in several steps in the course of 2023. After an initial round of collecting internationally comparable indicators for each of the system outcomes and learner groups covered by the monitoring framework, the ETF compiled a supplementary questionnaire for national authorities and stakeholders in Kazakhstan to gather information about outcomes and groups of learners for which such indicators were missing. The responses to the questionnaire were quantified and integrated with the rest of the monitoring data into a repository of mixed evidence, which was then used to calculate the system performance indices presented in this report.

In addition to messages about system performance, the monitoring delivers information also about the international comparability of results of each country, the extent to which these results may be susceptible to bias, and how self-critical a country is when it reports about its policy and system performance for external monitoring purposes. This is possible because the monitoring methodology foresees keeping accurate records about the availability, origin and type of evidence used to calculate the 82 performance indices and corresponding results for each country, including Kazakhstan.

FIGURE 1. COMPARABILITY AND CONSISTENCY OF MONITORING RESULTS: KAZAKHSTAN (2023)



In the group of countries covered by the Torino Process monitoring in 2023, Kazakhstan ranks in the second-highest quartile in terms of the international comparability of its monitoring results (first

⁶ <https://talap.edu.kz>

horizontal scale in Figure 1). This finding reflects the extent to which the monitoring results of the country are based on internationally comparable evidence. For well over a decade, Kazakhstan has been investing considerable efforts in its capacity to collect and use data on education and training and participate in international data collection initiatives and surveys. This may explain in part the good results of the country in this domain of monitoring. While this finding does not necessarily imply that evidence is always readily available where it is most needed, it does suggest that Kazakhstan is less affected by a shortage of internationally comparable information on the performance of its VET and lifelong learning systems than other countries in the Torino Process, on average.

The monitoring results of Kazakhstan for 2023 are also at a somewhat lower risk of bias (second horizontal scale in Figure 1), as more than 30% of them are based on quantitative evidence. Although this score is higher than the international average, it still signifies that internationally comparable evidence is missing for close to 70% of findings covered in this round of monitoring. In other words, the majority of monitoring results presented in this report are based on self-assessment responses.

Judging by these responses, which were provided in the supplementary monitoring questionnaire, Kazakhstan tends to self-assess the performance of its VET and lifelong learning systems in a rather positive way. The score of the country on this metric is well above the middle mark that signifies neutral self-assessment (third horizontal scale in Figure 1). In fact, Kazakhstan tends to be the least critical to its system performance of all countries participating in the 2023 round of Torino Process monitoring. Therefore, when interpreting the monitoring results presented in Section 2 of this report, it is important to consider that, although the results are exhaustive and legitimate, many are based on a self-assessment that is more positive than that of any other country in the monitoring sample.

2. MONITORING RESULTS: KAZAKHSTAN

2.1 Policy and system performance in 2023: overall results

The Torino Process monitoring draws on multiple, often disparate, information sources and data. To facilitate a quick, efficient, and focused communication of key messages despite the diversity of information collected, the reporting of monitoring results aggregates the evidence in ways which facilitate a quick overview of system performance without sacrificing too much detail.

The eight monitoring dimensions mentioned in the previous section are the top layer of reporting in this respect. They capture VET system performance in various domains, the selection of which is aligned with national and international country commitments and reform and development priorities concerning learning.

These eight dimensions are described in Table 1.

TABLE 1. DIMENSIONS OF POLICY AND SYSTEM PERFORMANCE MONITORING THROUGH THE TORINO PROCESS

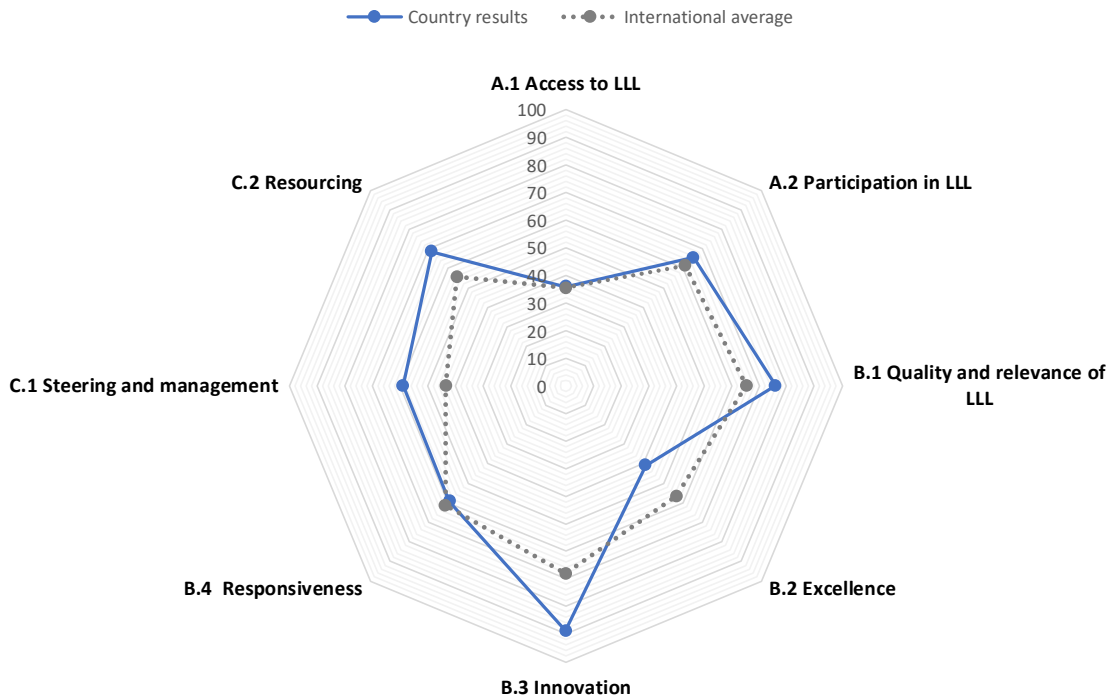
No.	Dimension	Description
A.1	Access to learning	This dimension captures the degree to which initial VET (IVET), continuing VET (CVET), and other adult learning opportunities to which VET could contribute, are accessible and attractive for learners irrespective of who they are and why they wish to engage in learning.
A.2	Participation in learning	This dimension captures the likelihood of VET learners to survive and thrive in the education and training system by looking at its vertical and horizontal permeability, that is whether learners can switch between general and vocational pathways and between formal and non-formal learning, as well as whether they complete their learning.
B.1	Quality and relevance	This dimension captures the extent to which learners in IVET and CVET are provided with basic skills and key competences, whether their learning has exposure to, and is relevant for, employment, and also whether they are provided with adequate career guidance.
B.2	Excellence	This dimension captures the presence of system-wide policies and measures to promote highest quality practices and results in teaching and training, content design and provision, governance and VET provider management, and equity and social inclusion.
B.3	Innovation	This dimension captures the presence of innovative practices and priorities on system level in the areas of access to learning, support for successful completion of learning, and quality of learning and training outcomes.
B.4	VET system responsiveness	This dimension captures the extent to which curricula for youth and adults consider themes of significance for sustainability, climate change awareness, and digitalisation, as well as whether the IVET and CVET systems are responsive to labour market needs, demographic changes, and socio-economic developments.
C.1	Steering and management	This dimension captures the availability of evidence for informed decision-making, the degree to which governance of VET is participatory, the presence and transparency of quality assurance arrangements, the quality and capacity of staff in leadership positions, and the degree of internationalisation of IVET and CVET.
C.2	Resourcing	This dimension captures the adequacy and efficiency of human and financial resources in IVET and CVET, and the extent to which the material base for learning and training is adequate, that is – conducive to effective teaching, training, and learning.

This chapter of the monitoring report presents the performance of the VET system in Kazakhstan across the eight broad dimensions of Torino Process monitoring.

In terms of overall performance, lifelong learners in Kazakhstan are well-placed to benefit from education and training that is reported as being better than average in most of these dimensions. It is attuned to quality and relevance (Dimension B.1, SPI of 76), relatively responsive to external developments (Dimension B.4, SPI of 59), and it is highly open and committed to promoting innovative practices in VET (Dimension B.3, SPI of 86).

VET is also seen as having solid capacity in the domain of steering and management, and resourcing (Dimension C.2 and C.1, SPI of 69 and 59, respectively). It is also more supportive of the successful participation and graduation of its learners than the systems of other countries in the Torino Process, on average (Dimension A.2, SPI of 65).

FIGURE 2. INDEX OF SYSTEM PERFORMANCE BY MONITORING DIMENSION, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2023)



Theoretical⁷ index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

However, not all learners seem to be able to benefit fully from these advantages. Performance in support of access and attractiveness of VET programmes is still subpar when compared to system performance in other dimensions of monitoring (Dimension A.1, SPI of 36). Also, despite a declared commitment to excellence in strategic documents, the system-wide promotion of highest quality practices in teaching and learning across the VET system remains an area with scope for improvement (Dimension B.2, SPI of 41).

2.2 Policy and system performance in specific areas of monitoring and against specific outcomes

VET performance in Kazakhstan in the eight monitoring dimensions presented above is driven by 30 policy and system outcomes. It is through these outcomes that the IVET and CVET subsystems work to meet the needs and expectations of stakeholders, particularly of youth and adult learners.

This second section of the monitoring report presents findings about system performance on the level of these deliverables. To facilitate reading and the navigation of content, the section groups the presentation of the 30 outcomes by the three major areas of commitment to learners, which were

⁷ The Torino Process makes a distinction between theoretical (full) index range and index range used for reporting purposes. For reporting purposes, rare instances of extreme values on the low end (SPI < 10) and on the high end (SPI > 90) of the index scale are truncated at the upper (10) and lower (90) decile end. This means that the reporting does not discriminate SPI values below 10 and above 90. The international average, on the other hand, is calculated using the full range of the index.

introduced in the first section of this report: access to learning (Area A), quality of learning (Area B), and system organisation (Area C). Reporting in Area B, the largest by the number of outcomes, is divided into B (1) and B (2).

2.2.1 Area A. Opportunities for lifelong learning: access and participation

In Area A (Access and participation in opportunities for LLL), the Torino Process tracks the first two monitoring dimensions presented in Section 2.1 – access/attractiveness and participation, with six system outcomes (Table 2).

These outcomes include access to IVET, CVET, and other opportunities for lifelong learning, the vertical and horizontal permeability of the VET system, as well as the prospects of learners in IVET and CVET to graduate and - where relevant – progress to subsequent levels of education and training. The outcomes included under Area A are defined in Table 2.

TABLE 2. POLICY AND SYSTEM OUTCOMES INCLUDED UNDER MONITORING AREA A: ACCESS AND PARTICIPATION

Code	Deliverable (outcome)	Description
A.1.1	Access and attractiveness: initial VET	This outcome captures the degree to which initial VET is an attractive educational choice in comparison with other learning alternatives, and whether that choice is accessible to various target groups of learners.
A.1.2	Access and attractiveness: continuing VET	This outcome captures the degree to which continuing VET is an attractive choice in comparison with other skills development alternatives, as well as whether that choice is accessible to various target groups
A.1.3	Access to other opportunities for LLL	This outcome captures access to other opportunities for lifelong learning not covered by outcomes A.1.1 and A.1.2 and VET, such as active labour market policies (ALMPs)
A.2.1	Flexible pathways: vertical permeability	This outcome strives to capture the vertical permeability of the education and training system vis-à-vis initial and continuing VET, understood as possibility for transition between consecutive tracks of education and training (general and vocational).
A.2.2	Flexible pathways: horizontal permeability	This outcome strives to capture the horizontal permeability of the education and training system vis-à-vis initial and continuing VET, understood as the possibility for transition between parallel tracks of education and training (general and vocational), and between formal and non-formal learning settings
A.2.3	Progression and graduation of learners	This outcome refers to the degree of success (graduation, progression) of learners in VET, for instance in comparison with other education and training alternatives

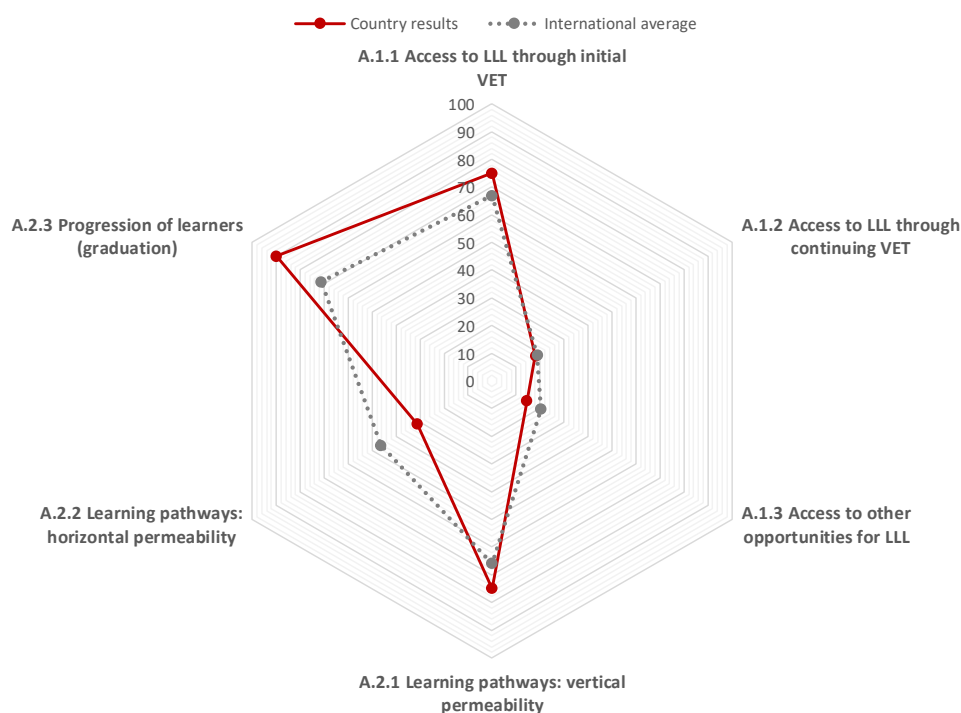
The preceding section emphasized the weaker performance of Kazakhstan in the domain of accessibility and participation in VET. Despite commendable efforts in this area (see also Section 4), significant age-related disparities still exist within that domain to the disadvantage of adult learners. While system performance in support of access to IVET programmes is seen as high compared to other countries in the Torino Process (Outcome A.1.1), participation in CVET is modest (Outcome A.1.2), even when compared against an already subpar international average. The performance of the VET system in securing access to other opportunities for lifelong learning for adults beyond VET is even lower (Outcome A.1.3).

In response to these challenges, the Government has initiated the ‘Free vocational education and training’ project. The ‘Quality education – Educated nation’ national project aims to ensure 100% enrolment by 2025 of young people at colleges for free education and training in specialist fields that are in demand. This initiative significantly enhances the accessibility and attractiveness of VET programmes, especially given the current shortage of staff in trades and the high demand for graduates. The total government order currently covers 128,000 seats, with 180,000 enrolment applications filed in 2022, highlighting the increasing interest and accessibility of these programmes.

According to official information, the possibility to study free of charge under the government order for education is an important factor contributing to the accessibility of VET programmes. This is particularly relevant for ISCED level 5 programmes, which prepare students for employment and form the basis for moving to ISCED level 6 and 7 programmes. This focus is essential to determine the required design capacity of educational institutions, especially in rural areas.

Once in a VET programme, learners in Kazakhstan can relatively easily navigate between different levels of education, reflecting a system reported to have a high degree of vertical permeability (Outcome A.2.1). Despite these structural opportunities for mobility within the system, horizontal mobility – the possibility to move between different pathways (general and vocational) – remains limited, however (Outcome A.2.2). This gap between potential and actual effectiveness of pathways suggests that improvements are necessary to enhance practical outcomes.

FIGURE 3. PROMOTING ACCESS AND PARTICIPATION IN OPPORTUNITIES FOR LLL - INDEX OF SYSTEM PERFORMANCE, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2023)



Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

To address this, authorities report that professional diagnostics are available to help students choose a specialist field, and admission examinations have been cancelled, with enrolment now based on average scores on a competitive basis. Additionally, procedures and practices enabling the transition from non-formal to formal learning settings are in place, although they are not yet fully developed. Learning outcomes gained through non-formal education are validated by post-secondary VET, higher, and/or postgraduate education institutions, aiding in the recognition and transition process.

Authorities report that both IVET and CVET are highly successful in seeing their learners through to graduation (Outcome A.2.3). Incentive mechanisms to promote successful graduation have been introduced, and VET institutions receive absolute state support, ensuring that students can continue their studies even after a leave. Unlike schools that drop students after they have completed basic secondary education, VET institutions strive to retain each student.

Moreover, students receive support in choosing a special VET field to prevent drop-outs through career guidance for grade 8 and 9 school students. The introduction of a dual education system further motivates VET institution students, leading to graduate employment with enterprises where they had internships during their studies.

2.2.2 Area B (1). Lifelong learning outcomes: quality and relevance

In the first part of Area B (Quality and relevance of LLL outcomes), the Torino Process follows another two of the dimensions presented in Section 2.1: quality/relevance and responsiveness of VET, with a total of eight policy and system outcomes.

These outcomes cover the quality of learning of youth and adults in VET in terms of key skills and competences, the exposure of learners in VET to the world of work, the employability of graduates from IVET and CVET, the availability of career guidance for them, as well as the relevance of learning and training content in VET. Under relevance, the monitoring records the responsiveness of the VET programme offering to demographic, labour market, and socio-economic developments, as well as the inclusion in VET curricula of themes pertaining to the green and digital transition. The outcomes included under Area B (1) are defined in Table 3.

TABLE 3. POLICY AND SYSTEM OUTCOMES INCLUDED UNDER MONITORING AREA B (1): QUALITY AND RELEVANCE

Code	Deliverable (outcome)	Description
B.1.1	Key competences for LLL, quality of learning outcomes	This outcome captures the extent to which the education and training system succeeds in the provision of basic skills and key competences for learners in formal education (including IVET), as defined in regular international surveys and international assessments
B.1.2	Adult skills and competences	This outcome captures the extent to which adults in working age dispose of basic skills and key competences, as captured by regular international surveys.
B.1.3	Links between learning and the world of work	This outcome reflects the pragmatic relevance of IVET and CVET programmes through the lens of participation in work-based learning (WBL) and the share of programmes with outcomes/objectives that include a WBL component
B.1.4	Employability of learners	This outcome refers to the labour market relevance of opportunities for LLL as captured through evidence of labour market outcomes of graduates from IVET, CVET, and other forms of LLL with a VET component
B.1.5	Opportunities for career guidance	This outcome strives to capture the timely availability of up-to-date information about professions and education programmes, which information allows prospective and current students in VET to take informed decisions concerning their education and employment paths
B.4.1	Relevance of learning content: green transition	This outcome captures the extent to which curricula for youth and adults consider themes of significance for sustainability and climate change awareness, including “green skills” for sustainable economies
B.4.2	Relevance of learning content: digital transition	This outcome tracks the extent to which curricula for youth and adults incorporate themes concerning digitalisation, and the extent to which learners are provided with basic digital skills as a result
B.4.3	Responsiveness of programme offering	This outcome captures the degree and speed of responsiveness of initial and continuing VET systems to the needs of the labour market and to other changes concerning demography and socio-economic developments

The system performance data for Kazakhstan indicate that the quality of foundational skills and competences delivered through the IVET system is average. However, since this is a demanding area

across most countries in the Torino Process, even this mid-range result is sufficient to put Kazakhstan ahead of other countries in the monitoring sample, on average (Outcome B.1.1, SPI of 50).

Despite moderate performance in this domain, Kazakhstan reports that VET connects education and training with the labour market remarkably well (Outcome B.1.3, SPI of 90). This is achieved in particular through dual education initiatives, which also contribute to the employability of VET graduates (Outcome B.1.4, SPI of 90). Employment statistics reveal that the skills and knowledge of the graduates are quite pertinent in Kazakhstan. Over the past four years, there has been a 9% increase in the employment rate of ТiПiO (vocational education) graduates, underlining the effectiveness of the colleges. In 2019, some 140,698 specialists graduated from the ТiПiO sector in Kazakhstan, out of which 123,826 found employment, demonstrating the relevance and effectiveness of the VET system.

An important factor contributing to the employability of graduates is the relatively strong results in career guidance (Outcome B.1.5), as well as the evolving implementation of dual education solutions. According to the laws, hands-on experience, including on-the-job work-based training, must account for 60% of education time. However, only students aged 18 and over have access to on-the-job training in many fields due to existing age restrictions. At the time of reporting, providers were obliged to dedicate 60% of the learning time to practical experience, including training at workplaces and in factories.

Furthermore, national authorities indicate that colleges have the academic freedom to develop curricula jointly with employers. This collaboration ensures that enterprises can train the personnel they need, making the education system responsive to market demands. A qualification exam is conducted either at the employer's establishment or at the educational institution if the institution has the required facilities, such as production areas, laboratories, workshops, or educational centres equipped with the necessary tools and equipment for each qualification. This practical approach ensures that students are well-prepared for the workforce.

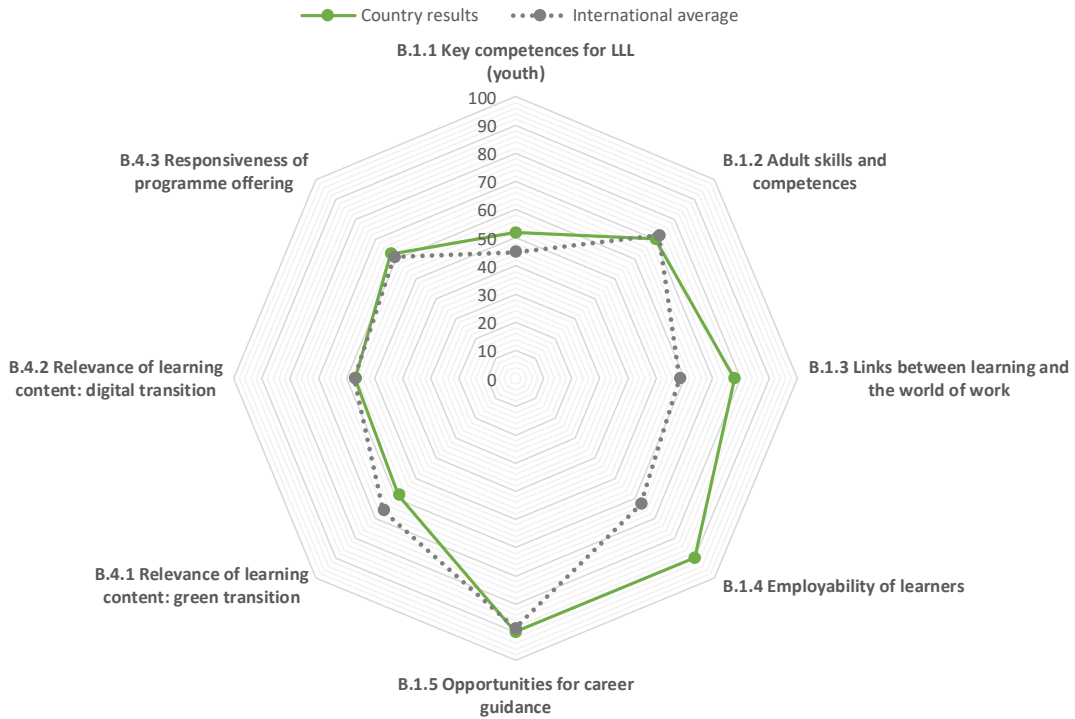
Despite these successes, challenges remain in the foundational education of students, as indicated by the most recent round of results from the Programme for International Student Assessment (PISA) of the OECD. In 2022, students in Kazakhstan scored below the OECD average in all three domains tested in the assessment (mathematics, reading, and science). Specifically, only 50% of students attained at least Level 2 proficiency in mathematics, significantly less than the OECD average of 69%.

Adult learners, on the other hand, are more likely to possess better quality skills and competences than young learners (Outcome B.1.2, SPI of 70). The gap in performance relative to the international average is minimal. However, this gap is significantly larger when comparing the results for young learners in Kazakhstan and other countries in the Torino Process sample, on average.

Overall, the VET system appears to be relatively responsive to the immediate needs of labour markets (Outcome B.4.3). According to official information, there is a strong commitment to aligning VET with industry needs, based on national and international standards. Elements of this commitment include collaboration with employers to ensure that curricula are grounded in real-world requirements, the introduction of the dual education system which provides a mix of theoretical and practical learning, and revamped accreditation processes which are compliant with international standards. To enable students' preparation for job requirements, VET institutions develop their educational programmes independently, in consultation with employers, based on SCS requirements, professional standards, and WorldSkills standards. Upon completion of training for each trade qualification,

students undergo a qualification hands-on or demonstration examination involving employers at VET institutions' training workshops, laboratories, and training centres, or at enterprise production sites.

FIGURE 4. SUPPORTING QUALITY AND RELEVANCE OF LLL - INDEX OF SYSTEM PERFORMANCE, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2023)



Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

The Torino Process monitoring framework assesses the relevance of learning content from a longer-term perspective by examining the extent to which curricula incorporate forward-looking, emerging themes such as digital and green transitions. During the monitoring period, VET programmes in Kazakhstan demonstrated engagement with these themes. The emphasis on the green transition was moderate, with an SPI of 59 (Outcome B.4.2), just like the focus on the digital transition (Outcome B.4.1, SPI of 57).

According to official information, the VET system is tasked with an important role in imparting knowledge on ecology, climate change, and "green skills". General secondary education introduces these concepts, while the State Compulsory Standard for Technical and Vocational Education mandates the inclusion of environmental and industrial safety in professional modules. Consequently, climate change knowledge is integrated into vocational programs. Students learn the fundamentals of environmental protection and climate change as part of secondary general education. Upon training completion, the final assessment for professional module content ensures students have the necessary awareness and skills in environmental and/or industrial safety.

The VET system also recognizes the need to equip adults, especially those with limited or no education, with essential digital skills. Since 2017, the "Free Vocational and Technical Education for All" project has expanded access to ТПО programs. Concurrently, the State Program "Еңбек" aims

at improving employment and entrepreneurship by offering vocational education and short-term professional training. The Social Code project, targeting up to 9 million working-age citizens, emphasizes a collaborative approach, with the government, employers, and citizens sharing the responsibility of skill acquisition. The skills.enbek.kz platform offers a variety of courses, most of which are free, to ensure easy access to quality training.

Employers also contribute by offering specialized courses for their workforce, focusing on current needs like upskilling and technology integration. The restructuring of the National Qualifications System aims to elevate education quality, with employers defining the workforce's skill requirements, leading to the update of educational programs. Centres for the recognition of professional qualifications assess professional qualifications, including tradesman's individual skills obtained through formal, non-formal, and informal education, and issue relevant certificates. This comprehensive approach ensures that the VET system in Kazakhstan remains responsive to both current and future labour market needs.

2.2.3 Area B (2). Lifelong learning outcomes: excellence and innovation

In the second part of Area B (Excellence and innovation in support of lifelong learning), the Torino Process monitors two performance dimensions – excellence and innovation, which accommodate a total of eight system outcomes. These outcomes include excellence in pedagogy, learning content, governance, and inclusion into learning, as well as systemic innovation supporting access, participation, quality, and relevance of learning and training. The outcomes included under Area B (2) are defined in Table 4.

TABLE 4. POLICY AND SYSTEM OUTCOMES INCLUDED UNDER MONITORING AREA B (2): EXCELLENCE AND INNOVATION

Code	Deliverable (outcome)	Description
B.2.1	Excellence in pedagogy and professional development	This outcome captures the extent to which excellence in teaching and training is an acknowledged policy priority, as well as the extent to which its implementation is bearing fruit across the education and training system, including in the domain of professional development of teachers
B.2.2	Excellence in programme content and implementation	This outcome captures the results of efforts to promote excellence in the content and implementation of VET programmes, with a specific focus on bringing them closer to the world of work (i.e. through work-based learning), on prioritising greening in curricula and teaching, as well as on promoting excellence in learning.
B.2.3	Excellence in governance and provider management	This outcome captures the results of efforts to promote excellence in the domains of financing, leadership, and governance, as well as the extent to which these examples are systemic or not
B.2.4	Excellence in social inclusion and equity	This outcome captures the results of efforts to promote excellence in the domain of equity and social inclusion in education and training, as well as the extent to which these examples are systemic or not
B.3.1	Systemic innovation: access to opportunities for LLL	This outcome captures the presence of innovative practices and policy solutions in the domain of access to opportunities for lifelong learning.
B.3.2	Systemic innovation: participation and graduation	This outcome captures the presence of innovative practices and policy solutions in the provision of support for participation in (and graduation from) opportunities for lifelong learning, and the extent to which they are systemic (or not)
B.3.3	Systemic innovation: quality of learning and training outcomes	This outcome captures the presence of innovative practices and policy solutions for raising the quality of learning and training in terms of the knowledge, skills, and abilities acquired by learners
B.3.4	Systemic innovation: relevance of learning and training	This outcome captures the presence of innovative practices and policy solutions for raising the labour market relevance of knowledge, skills, and abilities acquired by learners

The Torino Process defines excellence as the presence of system-wide policies and measures that promote highest quality practices and results in a selection of key domains of policy and system delivery in VET. The focus is on the measures of excellence in pedagogy and professional

development, excellence in programme content and implementation, excellence in governance and provider management, and excellence in social inclusion and equity.

While the generally effective day-to-day operations of the VET system successfully connect education with the labour market and ensure high employability of graduates, as discussed in the previous section, Kazakhstan shows a moderate level of performance in achieving excellence in pedagogy and professional development (Outcome B.2.1) and shows weaker results in promoting excellence in the content and implementation of VET programmes (Outcome B.2.2), as well as in the area of governance and provider management (Outcome B.2.3). This implies that while the VET system is functioning well at a practical level, there is a need for more robust attention policies and measures to elevate these areas to a higher standard in terms of excellence. The presence and identification of highest quality, but routine practices in support of teachers, programmes, and governance remain a challenge.

To address these challenges, the national project 'Quality education – Educated nation' has been approved, with Target 4 set as a priority: providing affordable and high-quality vocational training and education. After graduating from a VET institution, learners may continue their studies at the university with a shortened course; the rules for recognition of non-formal learning results have been adopted and draft micro-qualification rules are pending finalisation. These measures support access to lifelong learning opportunities for young people and adults. The government secures the right to education through developing the educational system, improving the legal framework for its operation, and creating the necessary socio-economic conditions for education in accordance with the Constitution of the Republic of Kazakhstan.

System performance in support of social inclusion and equity through excellence is strong (Outcome B.2.4). This aligns with a long-standing commitment and tradition in the country to prioritise equitable access and support for students at risk and in need. The government creates an environment for persons with special educational needs for their self-improvement, continuing education at all stages, and unhampered development of their capacities, including the right to choose the form of education within the limits provided by the educational system, considering their individual development specifics.

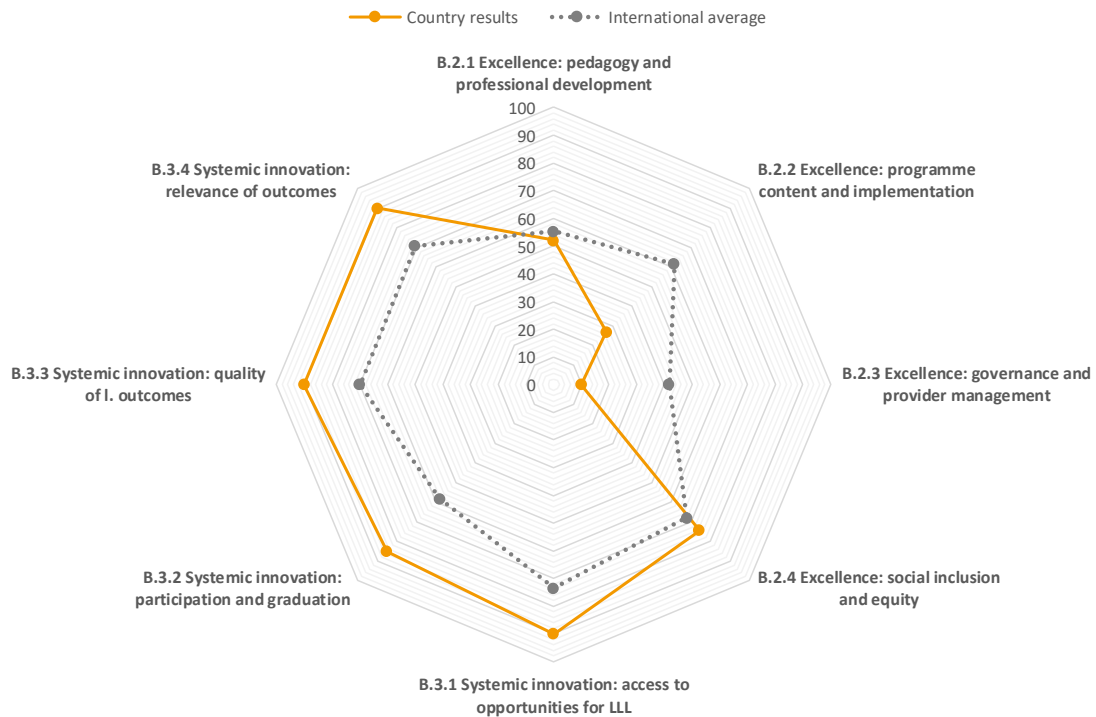
Since 2017, the 'Free vocational education and training for everybody' project has been implemented. Under this project, all Kazakhstan citizens can get free VET. Additionally, the Law of the Republic of Kazakhstan dated 11 July 2002 No. 343 'On social and medical pedagogical correctional assistance for children with disabilities' provides that disabled children may receive vocational education in accordance with Kazakhstan's laws on education.

In the context of system performance monitoring within the Torino Process, excellence and innovation represent distinct yet interconnected domains. While excellence refers to the pursuit of highest quality practices and outcomes in various, mainstream domains of vocational education and training policy and delivery, innovation focuses on the presence of pioneering practices and policy solutions within these and related domains. Innovation in the context of monitoring is a proxy for the adaptability, creativity, and forward-thinking approach in the VET system in responding to the evolving needs of learners and labour markets.

Kazakhstan reports good system results in all domains of monitoring pertaining to innovation in VET, better than the performance of other countries in the Torino Process, on average. The VET system is particularly receptive to innovation in the areas of access (Outcome B.3.1), quality (Outcome B.3.3), and relevance of learning (Outcome B.3.4). Still, the results discussed in the preceding two sections suggest that the innovation capacity does not yet have sufficient impact on

day-to-day VET system performance. There remains a systemic issue with the implementation pace and the non-systemic nature of these efforts, which are often limited to promising but restricted pilots.

FIGURE 5. EXCELLENCE AND INNOVATION FOR BETTER LLL - INDEX OF SYSTEM PERFORMANCE, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2023)



Theoretical index range: min/low performance=0, max/high performance=100

Source: [Torino Process monitoring database](#)

To improve academic performance of VET students, the Model Rules for current monitoring of performance, interim and final assessments of students for secondary and post-secondary VET institutions have been approved. The rules provide for a qualification examination, which enables unbiased assessment of theoretical and practical training, experience, and competence adequacy and their compliance with the requirements to assign a certain qualification level to the student. Interim assessment of students aims at assessing how well a student mastered the content of a single subject, course, and/or module, as well as professional modules (in full or in part) as part of a single qualification upon completion of their studies. Following the training completion, students undergo the final assessment to determine their degree of mastering the subjects, courses, and/or modules provided by the state compulsory standard for the relevant education stage. During the training, students' performance is monitored through the systematic check of their knowledge by the teacher in current classes as per the course and/or module curriculum.

To enable the preparation of students for the requirements of jobs, VET institutions develop their educational programmes independently, in consultation with employers, based on SCS requirements, professional standards, and WorldSkills standards. Upon completion of training for each trade qualification, students undergo a qualification hands-on or demonstration examination involving employers at training workshops, laboratories, and training centres of VET institutions and/or at the production sites of enterprises. This dual training approach, which includes on-the-job training and

professional internships at enterprises accounting for at least 60% of education time, clearly increases the training relevance for the labour market.

Moreover, to contribute to the personal growth and development of students and the building of their basic competencies, VET institutions provide general humanitarian and socio-economic courses or basic modules. Basic competencies help students create a healthy lifestyle and improve physical qualities, socialise and adapt in the community and working environment, develop patriotism and national identity, acquire entrepreneurial skills and financial literacy, learn how to use information, communicate, and introduce digital technologies into professional activities. This comprehensive approach indicates systemic innovations within the VET system.

To improve the capacity of the VET system to respond to labour market needs, all educational programmes are developed by VET institutions independently, in consultation with employers, based on the SCS requirements, as well as professional and WorldSkills standards (if any). Employers also take part in assessing education outcomes as members of the final assessment commission, formed from among skilled professionals in the area, teachers in special subjects, on-the-job training foremen, and representatives of collective management bodies of the education institution, with a ratio of 65% to 35% to be preserved for representatives of employers and those of post-secondary VET institutions.

2.2.4 Area C. System organisation

In Area C (System organisation), the monitoring framework accommodates the last two dimensions presented in Section 2.1 – steering/management and resourcing, in which the Torino Process tracks a total of eight system outcomes. These outcomes include the availability and use of data for informed decision-making, the involvement of stakeholders in VET policy, provider management, and resourcing, quality assurance and accountability, the internationalisation of VET providers, as well as the availability and use of human and financial resources in VET. The outcomes included under Area C are defined in Table 5.

Kazakhstan outperforms the international average in all domains covered in this area of monitoring, except for participatory governance (Outcome C.1.2) and the adequacy of financial resources for VET (Outcome C.2.1). The system results in these two domains are still solidly mid-range but somewhat weaker when compared to the results of other countries in the Torino Process, on average. As to governance for lifelong learning in particular, the concept of LLL (continuing education) was adopted recently (2021) and it aims to strengthen governance by engaging various stakeholders in creating, implementing, and assessing educational policies. This initiative underscores the presence of a commitment to continuous education and the integration of diverse educational opportunities for all age groups.

Like many countries participating in this round of monitoring, Kazakhstan faces challenges with the availability and use of data, particularly internationally comparable data (Outcome C.1.1). Nevertheless, it must also be noted that the country has invested commendable resources and effort in this area, both through participation in major international assessments and by investing in its own, domestic capacity to generate and analyse evidence in education and training.

For instance, Kazakhstan has a national educational database (NEDB) created to enhance data integration and management across the education system. This database integrates data from various state and non-state informatization facilities and ensures that information is updated timely and accurately. The NEDB is designed to securely store historical data and reduce manual data entry by synchronizing with other national databases, which is particularly relevant given the shift to per

capita funding. An open module in the NEDB allows public access to detailed information about educational institutions, enhancing transparency and enabling parents to make informed choices. However, capacity for the interpretation and use of the data generated remains limited, and thus, the evidence is still underutilized in policymaking and monitoring.

**TABLE 5. POLICY AND SYSTEM OUTCOMES INCLUDED UNDER MONITORING
AREA C: SYSTEM ORGANISATION**

Code	Deliverable (outcome)	Description
C.1.1	Data availability and use	This outcome refers to the availability of administrative and big data as covered by Level 1 of the monitoring framework, participation in large scale international assessments, as well as technical capacity to generate/manage evidence to support monitoring and improvement
C.1.2	Participatory governance	This outcome captures the degree of involvement of the private sector and other external stakeholders in consultations and decisions concerning opportunities for LLL through initial and continuing VET
C.1.3	Public accountability and reliable quality assurance	This outcome tracks the extent to which reliable and trustworthy quality assurance (QA) mechanisms and accountability arrangements are in place which cover learners, teachers, and providers, as well as the extent to which the QA results are publicly available
C.1.4	Professional capacity of staff in leadership positions	This outcome monitors the availability and professional capacity of qualified staff in leadership roles and in other key administrative roles on provider level
C.1.5	Internationalisation	This outcome monitors the degree of internationalisation in IVET and CVET, such as internationalisation of QA arrangements, curricular content, qualifications (i.e. recognition of international credentials, awarding bodies being active beyond their country of origin, etc.)
C.2.1	Adequate financial resource allocations and use	This outcome captures the adequacy of financial resources invested in IVET and CVET in terms of level of investment and allocation, as well as the degree of diversification of funding between public and private sources
C.2.2	Adequate human resource allocation and use	This outcome captures the efficiency of human resource management in terms of availability of teachers and trainers, and the adequacy of their deployment and career management
C.2.3	Adequate material base	This outcome captures the extent to which the material base for learning and training is adequate, including learning and training materials which are supportive of and promote effective teaching, training, and learning

VET in Kazakhstan is reported to have above-average performance in the domain of quality assurance and public accountability (Outcome C.1.3). For instance, the Order of the Minister of Education and Science of the Republic of Kazakhstan dated 23 June 2022 No. 292 sets the standards for VET quality assurance. Systematic monitoring of learning achievements by students (SLAM) is conducted annually to ensure compliance with these standards.

The presence of dependable quality assurance mechanisms and accountability structures indicates a system that is well-positioned to promote trust in its results and deliverables. Yet, the extent to which the system succeeds in promoting trust depends on several additional factors. As noted also by the national authorities, one of them is the transition to a more formative and less compliance-oriented approach to ensuring and promoting VET quality.

The professional capacity of staff in leadership positions within the VET system (Outcome C.1.4) is reported as commendable as well. This result is based on a self-assessment score, which in Kazakhstan is significantly higher than the average for other countries. The standard qualification description for VET institution leaders includes requirements for higher education, substantial teaching experience, and specific qualifications related to management and vocational training. This demanding standard helps ensure that VET institutions are led by highly qualified individuals capable of driving quality and innovation within the system.

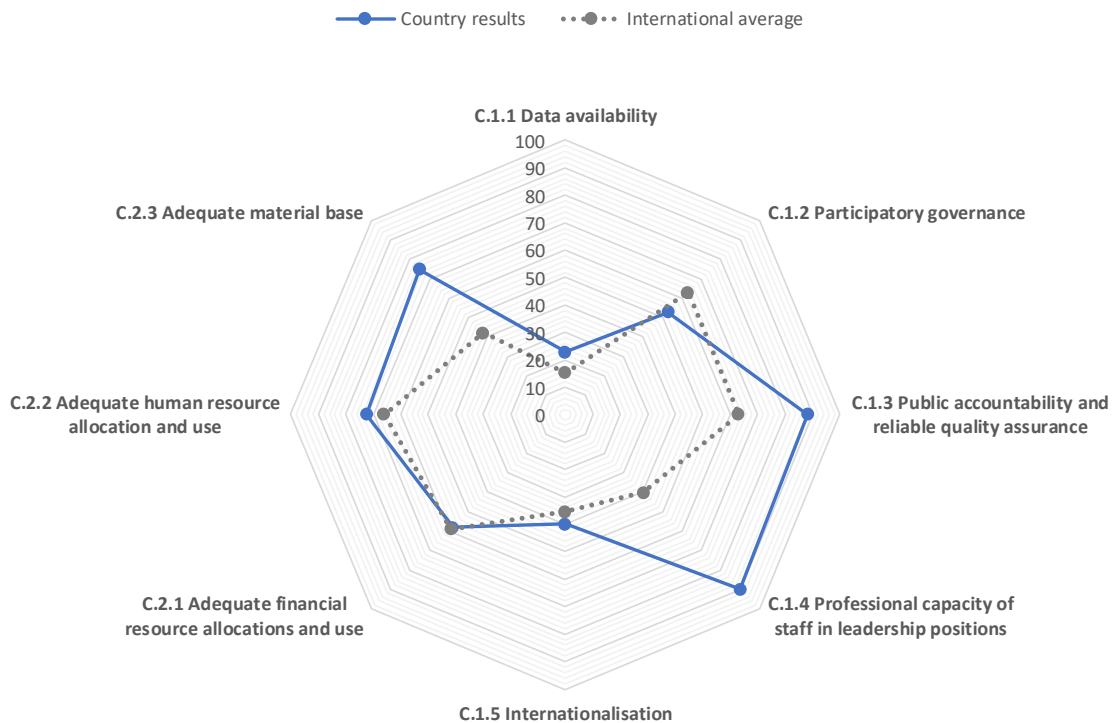
The experiences of peers in other countries are an important source of learning and development for practitioners in education and training, in quality assurance, and in any other domain. Exposure to

peer-learning opportunities can motivate improvement and raise awareness of the value and use of one’s own professional insights and experiences. Like in other countries in the Torino Process, internationalisation of providers and teaching in Kazakhstan is among the weaker areas of performance of the VET system (Outcome C.1.5).

At the time of monitoring, the availability and quality of internationalization efforts for IVET and CVET in Kazakhstan were expanding, however. For instance, five colleges currently employ experts from Germany’s Senior Expert Service (SES), and the government supports training programmes for VET teachers at foreign institutions through initiatives like the ‘Bolashak’ state programme. Additionally, Kazakhstan actively participates in the WorldSkills movement, joining WorldSkills International in 2014, WorldSkills Europe in 2016, and WorldSkills Asia in 2019. Kazakhstan’s performance in WorldSkills competitions has been notable, reflecting the country’s commitment to enhancing vocational training standards.

Authorities report that ongoing systematic efforts to train and develop the WorldSkills expert community in Kazakhstan are underway, and colleges have started holding demonstration exams according to WorldSkills standards since 2020. These efforts involve the business community and other stakeholders, ensuring that vocational training in Kazakhstan remains aligned with international standards and practices.

FIGURE 6. GOVERNANCE, PARTICIPATION, ACCOUNTABILITY, AND RESOURCES - INDEX OF SYSTEM PERFORMANCE, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2023)



Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

Another block of outcomes in the area of system organization includes resources. The term 'resources' in the context of Torino Process monitoring encompasses both the financial means to support teaching and learning, as well as the human capital required to deliver quality education.

Policy and system performance in the domain of human resources in VET in Kazakhstan is above average (Outcome C.2.2), highlighting the effectiveness of strategies to support the workforce of teachers and trainers. The availability of financial resources, on the other hand, is an area of somewhat weaker results (Outcome C.2.1).

VET institutions in Kazakhstan are primarily funded by the state budget. The Ministry of Education develops and approves the rules for making up and allocating the government order for post-secondary VET. In 2022, the Order of the Minister of Education and Science of the Republic of Kazakhstan dated 27 November 2017 No. 597 'On approval of the Methodology for standard per capita financing of preschool, secondary, post-secondary vocational, higher and postgraduate education and training using credit training technologies' was amended. This methodology includes an expense standard for depreciation of buildings and equipment, payroll for executives and teachers, textbooks, teaching literature and manuals, and education-related expenses such as on-the-job training and professional internships. The funding amount also depends on the training profile index by cost group.

However, funds from private sources are primarily invested in private education institutions. The state education policy ensures equal rights to quality education, priority of educational system development, and accessibility of all education stages to the population, considering individual specifics. The Ministry of Education also develops and approves the methodology for predicting the needs of VET institutions in textbooks and teaching materials, the rules for providing students and trainees with these materials, and the rules for creating, using, and preserving the library collection of state education institutions.

Although a substantial share of the public budget in VET is directed towards salaries, system performance in establishing a robust material base for teaching and learning is relatively high, both against the international average and other monitoring domains (Outcome C.2.3). This suggests that despite the overall scarcity of financial resources, the VET system in Kazakhstan has managed to allocate resources efficiently, possibly also with the help of targeted investments.

Authorities indicate that the Model rules for the operations of vocational education and training institutions, approved by Order of the Minister of Education of the Republic of Kazakhstan dated 31 August 2022 No. 385, stipulate that a VET institution must have a library collection suitable for the entire period of study, available in both printed and electronic forms. Furthermore, the Order of the Minister of Education and Science of the Republic of Kazakhstan dated 28 January 2016 No. 91 ensures that free textbooks and teaching materials, including electronic textbooks, are provided at the expense of the local and national budgets.

Additionally, the Order of the Minister of Health Care of the Republic of Kazakhstan dated 5 August 2021 No. KR DSM-76 specifies the minimum area of classrooms and lecture rooms per student, ensuring adequate space for effective learning. The area standard for technology and labour learning workshops and specialised workshops for differentiated training in various fields is set at 3.75 m² per student.

According to official information, the facilities and resources of VET institutions currently undergo modernisation; in 2020-2021, 180 VET institutions in Kazakhstan were provided with modern training

and production equipment. This ongoing modernisation effort is crucial to maintaining and enhancing the quality of vocational education and training in the country.

2.3 How do policies and systems benefit specific groups of learners?

In this round, the Torino Process monitoring looks not only into the deliverables of national VET policies and systems in general but also into the degree to which they address the needs and expectations of present and prospective lifelong learners. The monitoring framework traces how well and equitably system outcomes are distributed to these learners depending on their age and gender, and by features which can be influenced by policy, such as socio-economic disadvantage, labour market status, migration status and learning setting/pathway.

The next sections provide an overview of how the IVET and CVET subsystems in Kazakhstan perform in a key selection of monitoring dimensions for the following key selection of learner groups: female learners (Section 2.3.1), disadvantaged learners (Section 2.3.2), populations who are long term unemployed, economically inactive, and have a low level of educational attainment (Section 2.3.3), as well as by their country of origin (Section 2.3.4).

2.3.1 Female learners

This section describes findings about VET system performance regarding access, participation, quality and relevance, and innovation to the benefit of female youth and adult learners in VET in Kazakhstan. The data suggests that, while VET in Kazakhstan shows strong performance in attracting young female learners and providing them with quality education, there is a need for targeted strategies to improve access and participation for adult female learners. The ongoing efforts to foster innovation, ensure gender equality, and develop comprehensive frameworks for lifelong learning and qualification recognition are crucial steps towards addressing these challenges and enhancing the overall effectiveness and inclusivity of the VET system.

In more specific terms, the legal framework in Kazakhstan ensures that access to VET programmes is not restricted by gender, aligning with national laws that mandate non-discriminatory access to education. This policy framework translates into above-average participation rates for young female learners (Dimension A.1), highlighting the success in attracting this group to VET programmes. According to the National Educational Database, the overall student body and admissions show gender equality (male 52%, female 48%).

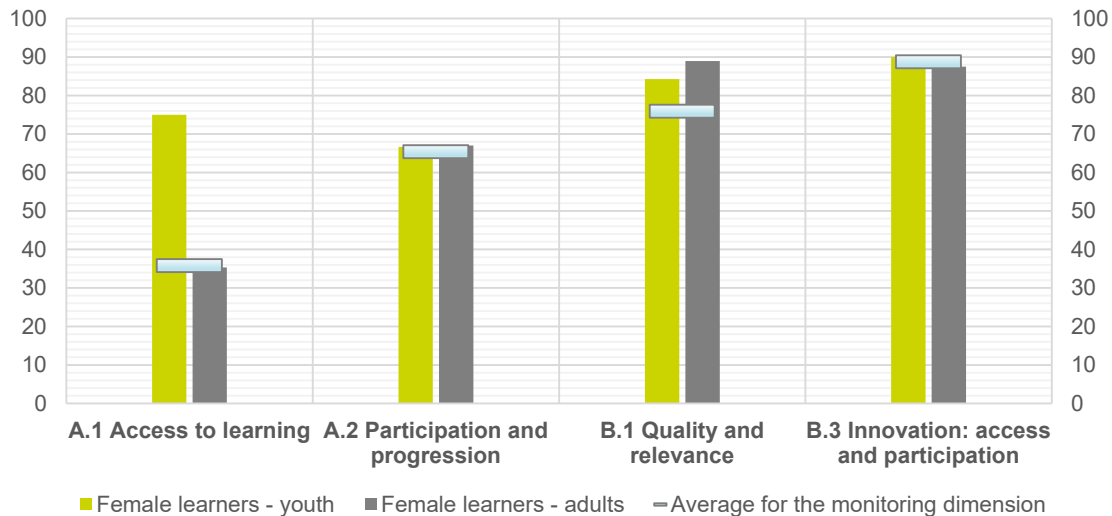
However, the performance in supporting access and attractiveness of VET programmes for adult female learners is considerably lower. This discrepancy points to a need for strategies that specifically target adult female learners to improve their participation.

Despite these challenges, the VET system demonstrates strong performance in fostering innovation for access and participation (Dimension B.3) in support of female learners, including adults. The fact that women of working age still struggle to access opportunities for learning despite the openness of VET to innovation in this domain suggests that the innovations may not be as effective at the system level. Enhancing the implementation and outreach of these innovations could bridge the existing gaps.

Once enrolled in a training programme, female learners, both young and adult, benefit from an environment that supports their engagement and progression (Dimension A.2), comparable to other learner groups. This conducive environment is crucial for maintaining high levels of participation and

ensuring continuous development. Students face neither gender-based segregation nor sex discrimination on their way to completing VET programmes, and both male and female students may take leave as applicable on an equal basis.

FIGURE 7. SYSTEM PERFORMANCE IN SUPPORT OF FEMALE LEARNERS IN SELECTED MONITORING DIMENSIONS, KAZAKHSTAN (2023)



Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

Furthermore, the quality and relevance of skills and competences provided to female learners (Dimension B.1) do not depend on their age. Both young and adult female learners receive education that is of higher quality than the average, positioning them well for future opportunities. Authorities report that this is in line with the Law on education, which guarantees equal rights and opportunities for quality education for everyone.

According to the PISA 2022 results for Kazakhstan, however, there are gender disparities among young learners. These disparities are particularly pronounced with respect to certain foundational skills: girls outperform boys in reading by a sizeable margin, and a larger proportion of boys are low performers in that domain of the PISA test.

2.3.2 Disadvantaged learners

This section describes how well the VET system caters for the needs of socioeconomically disadvantaged youth when it comes to access, participation, and quality/relevance of opportunities for lifelong learning through VET. The section also examines whether efforts to promote innovation in VET access and participation benefit this specific group of learners in Kazakhstan.

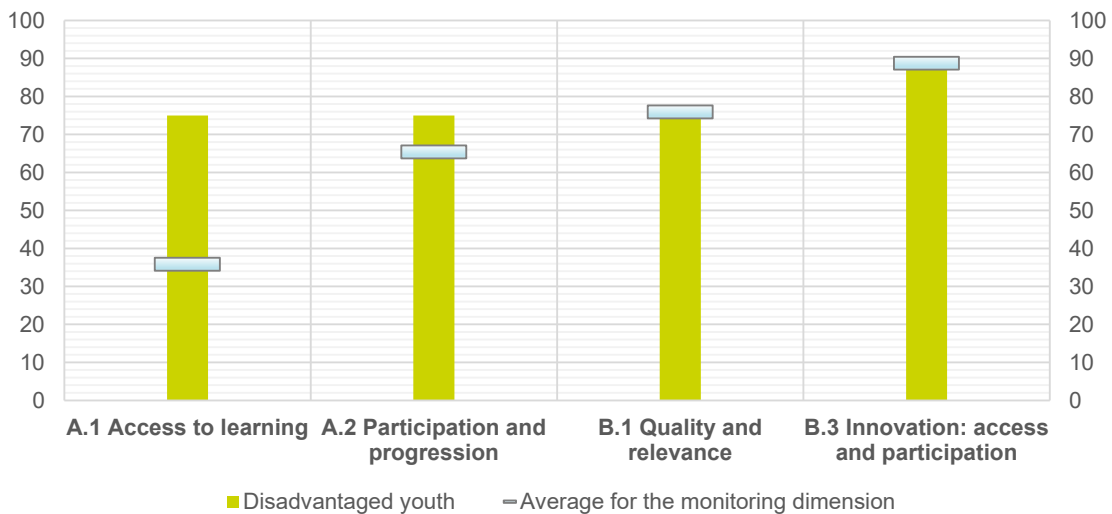
In general, the VET system shows strong performance in attracting and supporting socioeconomically disadvantaged learners. However, there is still a noticeable impact of socio-economic background on educational outcomes. The ongoing efforts to provide equal access, targeted support, and flexible learning paths are crucial steps towards addressing these challenges and enhancing the overall inclusivity and effectiveness of the VET system.

Kazakhstan has a long tradition of prioritising support for the access of vulnerable and at-risk learners to education and training, especially through VET which – like in many other countries in the Torino Process – is considered a viable path for learners from challenging backgrounds. The reported performance of the VET system in this respect is accordingly high (Dimension A.1). This high performance is supported by government policies that ensure equal access to VET regardless of socio-economic background. Authorities report that the government order for education includes quotas in VET institutions for orphans, children without parental care, children with special needs, and children from vulnerable social groups such as multiple-children families, single-parent families, and families raising children with special needs. Additionally, quotas are in place for young people living in rural areas and persons equated to World War II veterans in terms of benefits.

Similarly, the VET system creates an enabling environment for the participation and advancement of many disadvantaged learners (Dimension A.2). When these youths enrol in a VET course, they are more likely than other groups to find opportunities to engage, progress, and complete their studies.

The socio-economic background of students does not have a direct impact on their ability to access successive stages of general education (non-tertiary and tertiary), as equal conditions are provided to all applicants, and quotas ensure support for vulnerable groups. If students demonstrate good results, they gain access to state-subsidised seats, which underscores the inclusive nature of the VET system. Additionally, there is a state programme for training socio-economically disadvantaged groups, which provides education, scholarships, transportation, hot meals, and employment opportunities. According to official information, this focus on accessibility and advancement reflects a deliberate effort to dismantle barriers for disadvantaged youth and guide them towards graduation. Socio-economically disadvantaged students are provided with scholarships, accommodation, and food, which further supports their participation and success. In this way, their socio-economic background does not directly affect their chances of completing their learning successfully, as all students are granted equal conditions.

FIGURE 8. SYSTEM PERFORMANCE IN SUPPORT OF SOCIO-ECONOMICALLY DISADVANTAGED YOUTH IN SELECTED MONITORING DIMENSIONS, KAZAKHSTAN (2023)



Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

Additionally, the law 'On employment' (Law No 482-V ZRK of the Republic of Kazakhstan dated 6 April 2016) has been adopted to support employment for socio-economically disadvantaged young people. Employment Centres serve as public institutions dealing with employment issues, including retraining and professional development courses. Youth centres under akimats (local government offices) particularly focus on youth traineeships and employment, ensuring that disadvantaged youth receive the support they need to transition into the workforce successfully.

The official assertion that socioeconomic background does not directly impact the progression of students to higher levels of education, or their successful graduation focuses on the structural and policy-based supports in place to ensure equal opportunities for all students, such as quotas, scholarships, and state-funded seats.

However, it is also important to acknowledge that the academic challenges faced by socioeconomically disadvantaged students can indirectly affect their progression and graduation rates. In this way, their socioeconomic background can still indirectly influence these outcomes through its impact on their academic performance. Despite the reported high system performance in terms of delivering quality and relevance (Dimension B.1), data from PISA 2022 suggests that the socio-economic background of students still significantly impacts their educational outcomes. Disadvantaged students score lower in mathematics, though the performance gap between advantaged and disadvantaged students is smaller than the OECD average.

It is therefore important both to acknowledge the efforts and policies in place to support disadvantaged students, and to recognise that there are ongoing challenges which they face due to their socioeconomic background, and which require further attention.

2.3.3 Populations who are long-term unemployed, economically inactive, and have low educational attainment

This section describes findings about VET system performance from the perspective of three strategically important groups of adults: the long-term unemployed, the economically inactive adults, and those with low or no educational attainment.

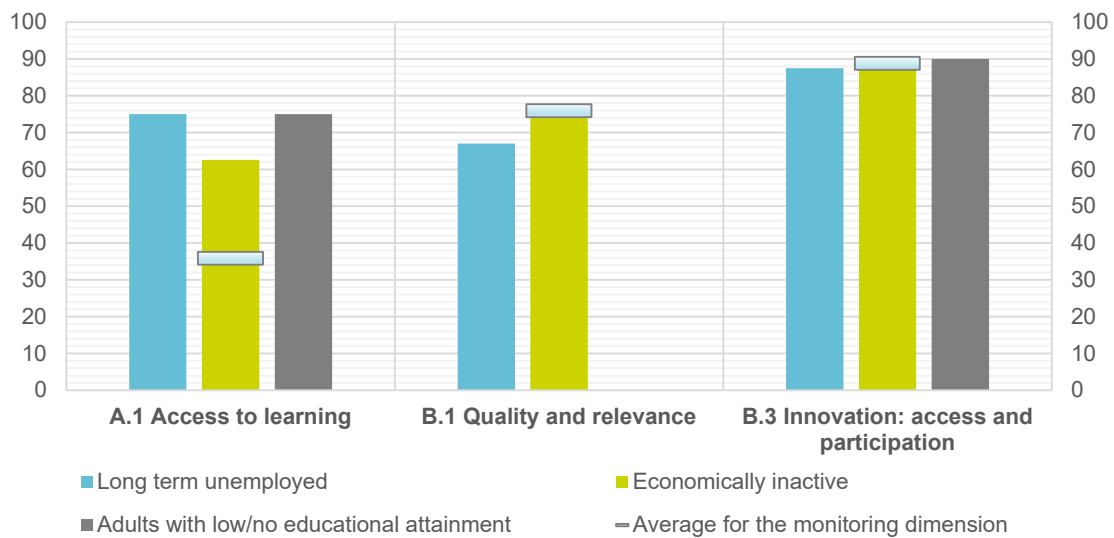
The monitoring evidence indicates that VET in Kazakhstan is progressing positively in terms of providing access and maintaining quality and relevance for adults at risk of disadvantage. The government reports of significant efforts to make VET accessible to vulnerable social groups. For instance, there are quotas in VET institutions for orphans, children without parental care, children with special needs, and children from vulnerable social groups, such as multiple-children families, single-parent families, and families raising children with special needs. Additionally, quotas exist for prospective learners living in rural areas.

Employment centres and educational institutions work together to increase the accessibility and attractiveness of continuing vocational education and training (CVET) for people of working age with low educational attainment and those without any education. The four-party contracts between the employment centre, training centre, employer, and learner enhance the attractiveness of these programmes by offering short-term training, retraining, and employment support upon completion of the courses.

However, the data also underscores areas with opportunities for policy improvement, as some learner groups benefit more from adequate support and learning opportunities than others. While the VET system is highly accessible for all adults at risk of disadvantage, including the long-term unemployed and those with low or no educational attainment (Dimension A.1), some groups are less

likely to benefit fully. Specifically, system performance in supporting access is weaker for economically inactive adults than for any other at-risk group. Addressing these nuances through more tailored strategies could improve outcomes for all disadvantaged groups irrespective of the source of risk. Kazakhstan reports of work in this direction. Economically inactive adults, including those of retirement age or with disabilities, are offered opportunities to learn new skills and generate additional income through seminars, trainings, online courses, and master classes. There are no officially known structural obstacles for these adults to accessing new knowledge and skills.

FIGURE 9. SYSTEM PERFORMANCE IN SUPPORT OF ADULTS WHO ARE LONG-TERM UNEMPLOYED, ECONOMICALLY INACTIVE, OR HAVE LOW EDUCATIONAL ATTAINMENT, KAZAKHSTAN (2023)



Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

The VET system demonstrates a high level of innovation in supporting access and participation for disadvantaged adults, comparable to the efforts made for other learner groups (Outcome B.3). The innovation efforts made to support access and participation for disadvantaged adults are reported as being equally effective and extensive as those made for other groups of learners. This commitment to inclusivity ensures that all at-risk adults receive equitable opportunities to engage and succeed within the VET framework.

Last but not least, the learning opportunities at the disposal of this group of prospective learners are reported to provide better than average quality of skills (Dimension B.1). The state ensures that all participants in VET programmes, regardless of their socio-economic background, have access to quality education. There are specific state VET programmes aimed at the long-term unemployed and those with low or no education. Participants in these programmes include recent grade 9 to 11 graduates, those not enrolled in any educational institution, job seekers, the unemployed, members of low-income and/or multiple-children families, and other specified groups. Employers play a key role in these programmes by filing applications with employment centres, selecting applicants, and facilitating their training in registered educational institutions.

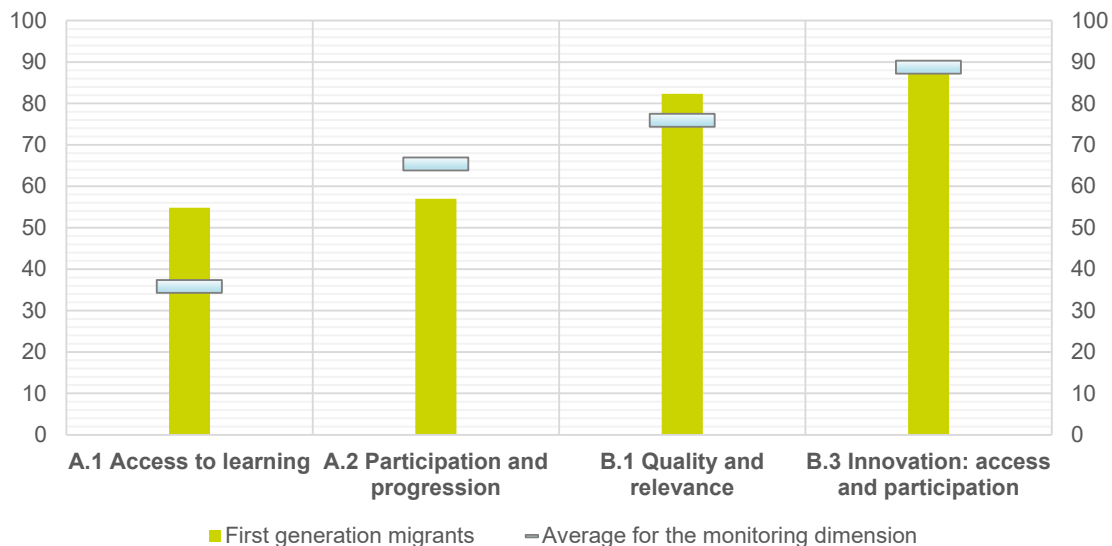
2.3.4 Learners by country of origin

The final section with monitoring findings discusses performance in the domains of access, participation, quality and relevance, and innovation in Kazakhstan for learners who are first-generation migrants.

The VET system in Kazakhstan is effective towards first-generation migrants in most dimensions in which the Torino Process monitoring tracks this group of learners. Specifically, first-generation migrants have access to learning (Dimension A.1) at levels that surpass the broader learner average, indicating the effectiveness of VET in providing entry points for this group. According to the Model rules for admission to education institutions implementing post-secondary vocational education and training programmes, VET institutions must admit citizens of Kazakhstan, foreign citizens, and stateless persons with various educational backgrounds, ensuring that first-generation migrants have equal access rights. Separate quotas for foreigners are granted to Kazakhs who are not citizens of Kazakhstan, constituting 4% of the approved government order for education.

Additionally, system support for the participation and progression of first-generation migrants (Dimension A.2) remains strong, yet somewhat below that of the average learner populace. This suggests that while entry access is strong, there are opportunities to enhance support mechanisms for learners with a migrant background to ensure their sustained engagement and advancement in VET. Migrants are provided with an adaptation period at the new place of study to accommodate discrepancies in study hours, subjects, and curricula, particularly in general education subjects in natural sciences and mathematics. However, challenges remain, such as language barriers for Kazakhs from Uzbekistan who do not speak Russian and Kazakhs from Turkmenistan who do not speak Kazakh.

FIGURE 10. SYSTEM PERFORMANCE IN SUPPORT OF FIRST-GENERATION MIGRANTS IN SELECTED MONITORING DIMENSIONS, KAZAKHSTAN (2023)



Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

Authorities also note that the socio-economic background of migrants does not affect their dropout rates, as all students are granted equal conditions, and their success depends on individual progress. Migrants may enjoy the rights and freedoms established for citizens of Kazakhstan, including the right to education, medical and social assistance as provided by Kazakh laws. State support measures provided to Kandas (ethnic Kazakhs and members of their families who have not been citizens of Kazakhstan and have received relevant status as prescribed by the Law 'On Migration') include education under the quota for enrolment to post-secondary VET and higher education institutions, social protection equal to that of Kazakh citizens, and assistance in employment. According to authorities, this support is crucial for integrating first-generation migrants into the educational and economic fabric of the country.

The monitoring results also suggest that the quality and relevance of learning for students with a migrant background (Dimension B.1) is an area where the VET system performs exceptionally well, better than for other learners, on average. The same is true for the openness of VET to innovation in support of access and participation for first-generation migrants (Dimension B.3).

3. SUPPLEMENTARY SOURCES AND INFORMATION

3.1 Links to background information and data

The system performance indices presented in this report were calculated based on a selection of international quantitative indicators for Kazakhstan and the qualitative responses of stakeholders where such indicators were missing.

The full collection of quantitative indicators collected for Kazakhstan for this 2023 round of monitoring can be found here:

The full collection of qualitative responses to the country-specific questionnaire for Kazakhstan can be found here:

General information for the Torino Process as well as the reports and data of other participating countries, can be found here:⁸

3.2 Definitions, terminological clarifications, methodological limitations

3.2.1 Definitions and terminological clarifications

This section provides an overview and definition of key terms in the Torino Process monitoring framework.

- **Youth:** Population in the official age of entrance and participation in initial VET programmes.
- **Adults:** Population of working age (15+ years of age) not enrolled in initial VET programmes.
- **Disadvantaged youth:** This refers to socio-economic disadvantage and describes youth with access to below-average levels of financial, social, cultural, and human capital resources.

⁸ The Torino Process monitoring reports and data will be released gradually in the period March-May 2023 in the order in which countries submit their evidence and the reports are being finalised with them.

- **Long-term unemployed:** Long-term unemployment refers to the number of people who are out of work and have been actively seeking employment for at least one year.
- **Inactive populations:** Adults of working age who are outside of the labour force, meaning that they are neither employed nor registered as unemployed (that is, seeking employment)
- **Lifelong learning:** any learning activity undertaken throughout life, to improve knowledge, skills/competences and/or qualifications for personal, social and/or professional reasons.
- **System performance:** describes the extent to which the VET system delivers against a targeted selection of national and international obligations (commitments) to learners and other stakeholders in support of learning through life (lifelong learning - LLL).
- **Initial VET:** Vocational education and training carried out in the formal system of initial education (usually upper or post-secondary) before entering working life.
- **Continuing VET:** Formal or non-formal vocational education and training carried out after initial VET and usually after the beginning of working life.
- **Adult education:** Adult education or learning may refer to any formal, non-formal, or informal learning activity, both general and vocational, undertaken by adults after leaving initial education and training.

3.2.2 Methodological limitations

The system performance indices developed in the framework of the Torino Process, are based on a rich methodological framework. This framework relies on various principles and theoretical underpinnings to ensure that the design, implementation, and evaluation of the indices is plausible in terms of theoretical foundations, technical reproducibility, and statistical fitness. The primary aim of these indices is to offer insights that can guide the monitoring of countries and inform their policy planning, not to promote their comparative ranking.

While various options were available during the different phases of the construction of the indices, the final choices represent a series of decisions which were deemed adequate and appropriate to promote reliability and avoid bias, in full awareness that by their very nature, indices like those require constant refinement. Therefore, the construction and calculation of the performance indices will remain an ongoing process to address the following limitations:

1. Refinement of aggregations and analysis: the current version of the indices represents a sub-set of the national systems under analysis. While these are sufficient for the formulation of initial findings, future cross-country analysis will include a larger number of countries with possible alternative (dis)aggregations i.e., at regional or development level, which may also affect the formulas using in the calculation of the indices as well as their values. The methodological framework of the Torino Process monitoring allows for such extensions and refinement without jeopardizing the validity of results which have been released already.

2. Choice of evidence: while the goal of this exercise is to monitor equally the different areas of interest, their dimensions and related outcomes, different countries may rely on a different, country-specific mix of qualitative and quantitative indicators from a predefined list for all countries. This also applies to the last available (reference) year for the quantitative indicators, which may vary between indicators and countries within a five-year limit.

4. NATIONAL BACKGROUND REPORT AND SUPPLEMENTARY DATA

4.1 Foreword

The Torino Process (TRP) in Kazakhstan is an analysis of policy implementation in the field of technical and vocational, post-secondary education (VET), based on factual data and broad, open participation of stakeholders. Kazakhstan has been participating in the Torino Process since 2010. Over the years, the Torino Process has evolved into an analytical mechanism and a platform for discussing VET development policy at the national level.

Kazakhstan has participated in several rounds of the Torino Process (2010, 2012, 2014, and 2016). In 2017-2018, the TRP was conducted at the regional level, and in 2019, Kazakhstan took part in the national round. In 2020, the study focused on certain thematic areas:

1. The effectiveness of introducing a modular–competency-based approach into the educational process of VET organisations.
2. The effectiveness of conducting advanced training courses for teachers and heads of VET organisations.

In 2023, Kazakhstan participated in a new round of the Torino Process. Under the instructions of the Ministry of Education of the Republic of Kazakhstan, NJSC "Talap" was tasked with developing a tool to assess the quality of education in VET organisations.

To create this tool, NJSC "Talap" conducted an analysis of existing tools for assessing educational quality, studied international experience, held focus groups and round table discussions, and developed draft Regulations on Conducting the Assessment of the Quality of Education, along with guidelines on using the toolkit. Additionally, recommendations were made for improving existing legal frameworks to ensure education quality in VET.

This report includes:

1. An overview of key socio-economic activities (brief information)
2. A review of Technical and Vocational Education: Basic Statistics
3. Major Reform Initiatives
4. Information on the Torino Process studies in 2023
5. Indicators

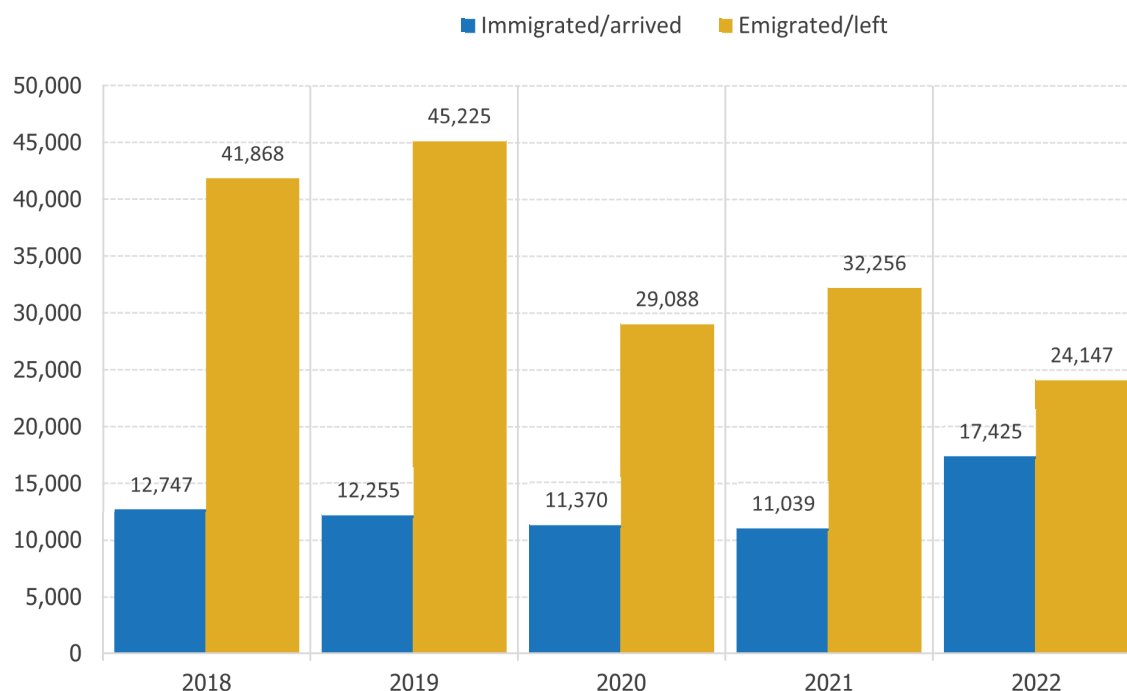
NJSC "Talap" expresses gratitude to all those who contributed to the development of the tool for assessing the quality of education in VET organisations. Special thanks go to those who actively participated, providing detailed suggestions and recommendations for project development. We also thank all interviewers for their openness and valuable input.

4.2 Overview of main socio-economic trends

The population of the country shows positive growth. In 2022, based on the results of the 2021 National Population Census, the total population increased by more than 260,000, reaching 19,766,807. Of this population, 48.8% were men, and 51.2% were women. The working-age population (between 16 and 61 for women and 63 for men) totals 11,359,953, representing 57.5% of the population. More than one-third (35.4%) of the population consists of children under the age of 18 (7 million people). With the definition of youth being extended to include people up to the age of 35, the youth population increased from 3.9 million to 6 million (30.6%).

The country's demographic situation is characterised by a decrease in the rate of population outflow. According to the Bureau of National Statistics, the balance of external migration remains negative; however, over four years, the gap between the number of immigrants and emigrants has decreased nearly fivefold, from 32,900 people in 2019 to 6,700 in 2022. In total, 17,400 people immigrated to the country in 2022, while 24,100 emigrated (Figure 1).

FIGURE 4.1 EXTERNAL MIGRATION OF THE POPULATION, 2018–2022, PEOPLE



Source: Бюро национальной статистики

In terms of professions, 4,100 technical specialists, 1,900 economists, and 1,200 teachers emigrated from the country (Table 1). These professions are among the most in demand in the country. For example, the greatest demand for workers is observed in the sectors of manufacturing, construction, education, trade, and agriculture.

As a result, most of the specialists who left the country held qualifications in technical, economic, or pedagogical fields.

TABLE 4.1 EXTERNAL MIGRATION OF THE POPULATION AGED OVER 15 BY SPECIALISATION, 2020–2022, PEOPLE

Specialty	2020			2021			2022		
	+	-	Balance	+	-	Balance	+	-	Balance
Architectural and Construction	101	447	-346	143	437	-294	172	262	-90
Medical	233	760	-527	324	904	-580	375	668	-293
Pedagogical	365	1 454	-1 089	427	1 627	-1 200	631	1 235	-604
Technical	832	4 467	-3 635	1 171	5 274	-4 103	1 955	4 175	-2 220
Economic	430	2 331	-1 901	551	2 573	-2 022	973	1 950	-977
Legal	116	541	-425	170	616	-446	249	434	-185
Agricultural	89	230	-141	139	218	-79	112	202	-90
Miscellaneous	2 222	5 360	-3 138	3 202	4 673	-1 471	4 003	3 472	531

Source: National statistical office

In 2022, the number of unemployed people in Kazakhstan stood at 458,300, with the unemployment rate remaining at 4.9%, as in previous years. Regionally, the unemployment rate varies between 4.3% and 5.2%. The highest unemployment rates are found in labour-surplus regions such as Turkistan (5.2%), Mangystau (5.1%), and Jetisu (5.1%). Additionally, high unemployment is recorded in the cities of Almaty and Shymkent, as well as in the Jambyl, West Kazakhstan, and Abai regions (5% each). The lowest unemployment rates are seen in Ulytau (4.3%) and the Karaganda region (4.4%), both of which are industrial areas.

The youth unemployment rate is 3.8% and has remained stable over the past three years. Among the unemployed youth (aged 15-28), those with only primary, basic secondary, or general secondary education account for 8.5%, a figure more than double that of unemployed youth with higher or postgraduate education (3.5%). These results highlight the importance of higher or technical and vocational education in improving the likelihood of employment.

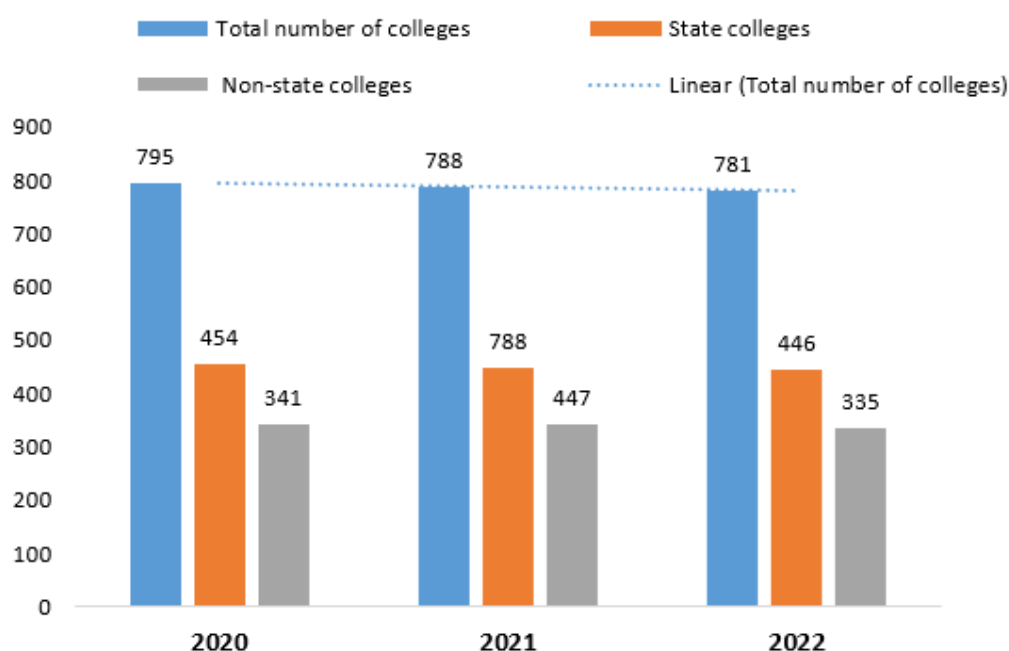
4.3 Overview of technical and vocational education

4.3.1 Basic statistics

VET students

The network of VET organisations consists of colleges with various forms of ownership and departmental affiliation. In 2022, 781 colleges were providing training for qualified workers and mid-level specialists in VET educational programs. Of these, 446 were state colleges, and 335 were non-state colleges (in 2020: 795, with 454 state and 341 non-state; in 2021: 788, with 444 state and 341 non-state) (Figure 2). Of the total number of colleges, 624 are located in cities, and 157 are in rural areas.

FIGURE 4.2 NETWORK OF VET PROVIDERS, 2021–2023, UNITS



Source: National education database (NED)

Over the past three years, the network of VET organisations has decreased by 14 units (from 795 in 2020 to 781 in 2022). The reduction in the number of colleges is due to profiling, a reorientation of the VET system towards in-demand and related specialties, the merging of several colleges, and the closure of private colleges in response to labour market demand. With the establishment of new regions—Abai, Jetisu, and Ulytau—the number of colleges in East Kazakhstan, Almaty, and Karaganda regions was divided.

TABLE 4.2 NETWORK OF VET ORGANISATIONS BY REGION, 2020–2022, UNITS

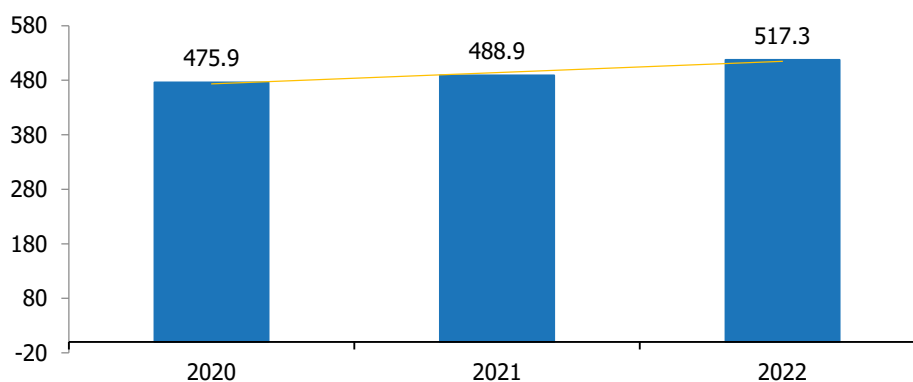
Region	2020	2021	2022
REPUBLIC OF KAZAKHSTAN	795	788	781
Abai Region	-	-	41
Akmola Region	33	32	33
Aktobe Region	43	42	42
Almaty Region	71	71	42
Atyrau Region	24	24	25
West Kazakhstan Region (ZKO)	34	35	34
Jambyl Region	46	44	44
Jetisu Region	-	-	28
Karaganda Region	70	69	54

Kostanay Region	35	34	34
Kyzylorda Region	30	30	30
Mangystau Region	27	27	26
Pavlodar Region	45	44	44
North Kazakhstan Region (SKO)	25	23	24
Turkistan Region	66	62	53
Ulytau Region	-	-	14
East Kazakhstan Region (VKO)	84	81	42
City of Astana	38	39	37
City of Almaty	93	92	94
City of Shymkent	31	33	40

Source: NED

Over the past three years, the number of students has increased, with a 6% rise in 2022 (Figure 3). The share of students studying under the state educational order accounted for 60.2% of the total student population.

FIGURE 4.3 TRENDS IN THE NUMBER OF STUDENTS IN VET, 2020–2022, THOUSANDS



Source: NED

From 2020 to 2022, the VET system saw an increase in the number of students in almost all regions of the Republic. The most attractive areas for students are cities with significant growth in student numbers, such as Astana, Almaty, and Shymkent, with increases also observed in Aktope, Atyrau, and Jambyl regions. A decline in student numbers was recorded in the Turkistan region, with slight decreases in the West Kazakhstan, North Kazakhstan, and Kostanay regions.

TABLE 4.3 NETWORK OF VET PROVIDERS BY REGION

Region	2020	2021	2022
REPUBLIC OF KAZAKHSTAN	475 960	488 949	517 337
Abai Region	-	-	20 977
Akmola Region	21 641	22 015	21 371
Aktobe Region	24 626	25 577	27 605
Almaty Region	31 749	33 635	20 132
Atyrau Region	14 916	16 485	19 840
ZKO	17 011	17 423	17 134
Jambyl Region	23 678	23 476	25 349
Jetisu Region	-	-	14 829
Karaganda Region	37 456	38 439	33 665
Kostanay Region	22 670	22 832	22 167
Kyzylorda Region	19 798	19 687	20 699
Mangystau Region	19 108	19 864	20 861
Pavlodar Region	21 328	21 908	22 631
SKO	10 682	10 802	10 745
Turkistan Region	46 584	41 263	37 260
Ulytau Region	-	-	6 131
VKO	35 362	36 170	17 363
City of Astana	26 538	27 285	32 494
City of Almaty	69 231	73 088	84605
City of Shymkent	27 536	32 910	44 479
Republican	6 046	6 090	6 380

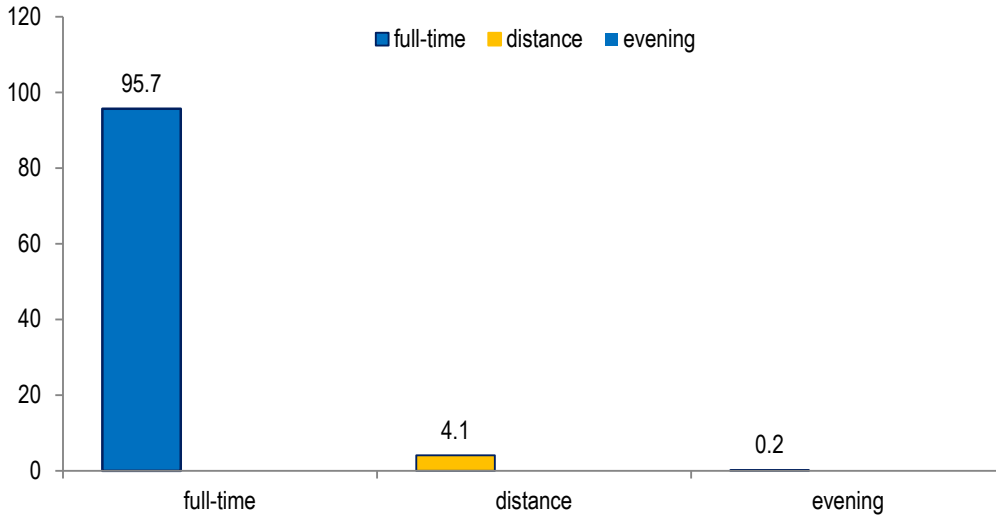
Source: NED

One of the objectives of the national project "Quality Education"—approved by Resolution No. 726 of the Government of the Republic of Kazakhstan on 12 October 2021—is to ensure "affordable and high-quality technical and vocational education," which is reflected in the fact that 60.2% of the VET student body is funded under the state educational order.

In 2020, NJSC "Talap," on the instruction of the Ministry of Education and Science of the Republic of Kazakhstan, conducted an analysis of the state of VET. This analysis revealed several violations, and as a result, the list of specialties eligible for distance learning in colleges was reduced nationwide. Distance learning for specialties such as "Law," "Education," "Service, Economics, and Management," and others was deemed impractical. The distance learning system in colleges can now be applied to

37 disciplines, as there is a trend towards reducing the number of specialties available in this format due to its inability to provide practice-oriented knowledge. A total of 21,254 students (4.1% of the VET student population) are enrolled in distance learning courses. The largest number of distance learners is in the Karaganda region (2,500 people or 11.7%) and the Aktobe region (1,973 people or 9.3%).

FIGURE 4.4 DISTRIBUTION OF VET PROVIDERS BY FORM OF STUDY, 2022, %



Source: NED

In 2021, the country updated the process for admission to colleges. Applications are now submitted online through the "electronic government" web portal, Egov.kz. Prospective students can select up to four educational institutions and four specialties in which they wish to enrol. Under the new rules, grants are awarded based on the principle of "money follows the student": once a student wins a grant, they choose a college from the list of VET organisations offering state-funded programs for training qualified workers, mid-level specialists, and applied bachelors. Funding is directed to the college of their choice. This is expected to increase competitiveness among colleges. In 2022, the total number of enrollees reached 183,423, with 120,438 (67.9%) entering under the state educational order (in 2021: 93,153 people or 55.8%). Of those, 113,774 students entered based on completion of 9th grade, with 85,318 (75%) on a state-funded basis, and 69,649 students entered based on completion of 11th grade, with 35,120 (50.4%) funded by the state. The largest increases in student admissions were recorded in Shymkent (26.9%), Astana (21.8%), Jambyl region (20.4%), Turkistan region (18.7%), Almaty (6.7%), and Mangystau region (4.2%) compared to 2021. Nationwide, student enrolment under the state educational order increased by 9%.

One significant outcome of the collaboration between VET organisations and enterprises is the development of dual education. Dual education has been introduced in 558 VET organisations across 166 specialties, 445 qualifications, and 15 fields, including "Metallurgy," "Construction," "Agriculture," "Production and Installation," "Service," and "Transport." More than 8,000 enterprises are involved, and more than 75,000 students are enrolled in dual education programs. The number of students participating in dual education increases annually (Table 4).

**TABLE 4.4 DATA ON THE IMPLEMENTATION OF DUAL EDUCATION IN COLLEGES,
2020–2022, UNITS, PEOPLE**

	2020	2021	2022
A network of colleges, units	535	536	558
Contingent, people	58 673	68 192	75 023

Source: NED

To ensure the effective implementation of dual education in colleges, the government has taken several measures, including amendments to relevant legal acts such as the Labour Code of the Republic of Kazakhstan and the Law "On Education." For example, during industrial training and professional practice, enterprises can provide compensation to students for performing specific duties. The term of study in dual education (ranging from 6 to 18 months) counts towards students' work experience, facilitating their employment upon graduation. The document confirming the student's work activity is the dual education annex. Methodological recommendations for the implementation of competency and achievement maps have also been developed (Order of the Minister of Education dated 30 December 2022, No. 536).

Inclusive education remains a priority in the country. The Concept for the Development of Preschool, Secondary, Technical, and Vocational Education in the Republic of Kazakhstan for 2023-2029 emphasises the importance of supporting students with special educational needs (SEN). On average, 65.9% of the 781 colleges have created optimal conditions and barrier-free access for students with SEN. These colleges provide special facilities, necessary telecommunications equipment, and access to educational literature and materials. However, only 2.3% of VET organisations have specialised teachers (such as those for the deaf). According to the National Database, VET organisations lack specialists such as typhlopedagogues and oligophrenopedagogues, indicating that conditions for inclusive education still fall short of meeting the needs of students who require specialised support.

In 2020, the "Zhas Maman" ("Young Specialist") Project was launched to modernise colleges and train qualified specialists in high-demand professions, in line with labour market and employer requirements. The project was initiated based on a presidential directive by the First President of Kazakhstan, N.A. Nazarbayev, at the opening of the Year of Youth (23 January 2019). As a result, 180 state-run VET organisations were equipped with modern training equipment for 100 high-demand professions.

One of the key aspects of the project is the introduction of foreign experience in training personnel by adapting 54 Finnish educational programs in various professions, following European and Finnish standards. To date, all VET organisations involved in the project have developed 380 educational programs based on those created by the foreign partner in 2020. Over 40,000 students in these colleges have been trained under these programs.

The equipment purchased through the project has enabled the creation of competence centres, which are used to prepare students for qualification exams, train contestants for WorldSkills competitions, and provide internships and retraining for employees of partner enterprises and unemployed individuals. Of 178 colleges, 159 (89%) have established competence centres.

From the 2021-2022 academic year, Kazakhstani colleges have been granted academic autonomy, allowing them to determine the content of educational programs and training periods in collaboration with employers. Colleges began introducing credit-modular learning technology based on professional standards in 2021. The Register of Educational VET Programs was established under

the Law "On Education" of the Republic of Kazakhstan to record programs developed by colleges under academic autonomy. In 2022, 4,101 VET programs were listed in the Register, with 87% designed to meet professional standards.

Kazakhstan is a full member of WorldSkills International and WorldSkills Europe. In 2022, the VII Republican Championship of Professional Skills "WorldSkills Kazakhstan 2022" was held in 30 competencies, involving 511 contestants and 490 experts from 20 regions. As a result, 110 college students and young specialists won 34 gold, 38 silver, and 38 bronze medals. Additionally, 144 participants were awarded medallions of distinction. In September 2023, Kazakhstan participated in the EuroSkills competition in Gdańsk, Poland, achieving 7 prize positions for the first time.

The demonstration exam based on WorldSkills standards has proven to be an effective tool for assessing the quality of personnel training in collaboration with employers. This system allows students to demonstrate their professional skills in conditions close to real production settings. The demonstration exam also enables students to obtain a Skills Passport, which is registered in a database accessible to employers. The number of colleges using the demonstration exam for final assessments has increased from 36 in 2020 to 116 in 2022 (33% of state colleges), reflecting the growing recognition of this evaluation method in the education system.

TABLE 4.5 SHARE OF EMPLOYED GRADUATES, 2020–2022, %

Region	Percentage of employed graduates %		
	2020	2021	2022
REPUBLIC OF KAZAKHSTAN	82	85	83
Abai Region	-	-	83
Akmola Region	91	98	94
Aktobe Region	81	87	73
Almaty Region	83	86	88
Atyrau Region	79	83	74
ZKO	68	80	62
Jambyl Region	62	61	72
Jetisu Region	-	-	93
Karaganda Region	82	83	79
Kostanay Region	92	91	91
Kyzylorda Region	76	86	83
Mangystau Region	82	71	72
Pavlodar Region	93	94	86
SKO	96	95	97
Turkistan Region	79	78	73
Ulytau Region	-	-	89
VKO	95	95	93
City of Astana	77	85	93
City of Almaty	79	82	86
City of Shymkent	68	91	91

Source: NED

The employment rate for graduates in 2022 was 83%. Regionally, the highest employment rate was in the South Kazakhstan region (97%), while the lowest was in West Kazakhstan (62%), where employment rates were 21% below the national average (Table 5).

Human resource potential in VET

In the 2022-2023 academic year, according to the National Database (NOBD), the number of teachers was 40,955 (27,796 in state colleges and 13,159 in private colleges).

The level of professional competence of teachers is determined by their qualification category. Over the past year, there have been changes in the structure of teacher categories. The proportion of teachers without a category increased to 44%, while the shares of teachers with the second category and higher decreased by 1-2%. A likely reason for this change could be the introduction of a new category system under the Law of the Republic of Kazakhstan "On the Status of Teachers." These changes may have impacted the certification procedures for teachers, affecting the distribution of categories. Based on available descriptions, the transition to the new category system may present challenges for many VET teachers, particularly due to the national qualification testing required to obtain a new category.

The process of transitioning VET teachers to the new qualification category system, as outlined by the Law of the Republic of Kazakhstan "On the Status of Teachers," is ongoing. In 2022, 44% (18,193) of teachers had already received categories under the new system. A significant portion of them—17% (6,964)—hold the category of "Moderator Teacher" or higher, and as a result, receive the corresponding salary supplement (Table 6).

TABLE 4.6. DISTRIBUTION OF VET TEACHERS BY CATEGORIES, INCLUDING THE NEW CATEGORY SYSTEM, 2022, PEOPLE, %

Category		Total teachers:		Receiving additional payment for new categories:	
Old system	Without category	6 828	17%		
	Category 2	4 891	12%		
	Category 1	4 473	11%		
	Highest category	6 587	16%		
	Total of the old system:	22 779	56%		
New system	Teacher	11 229	27%	6 964	17%
	Teacher-moderator	3 037	7%		
	Teacher-expert	1 847	5%		
	Teacher-researcher	1 919	5%		
	Teacher-master	161	0%		
	Total of the new system:	18 193	44%		
Total:		40 972		6 964	17%

Source: NED

One of the pressing issues in the VET system remains the shortage of highly qualified teachers. In 2022, 1,843 vacancies were identified in colleges, representing more than 4% of the total number of teachers. This indicates a significant need for teaching staff in the sector. The greatest demand for teachers was found in the following areas:

- Teachers of general professional and specialised disciplines: 594 vacancies.
- Teachers of general education subjects: 367 vacancies.
- Vocational training instructors: 225 vacancies.

- Teachers of humanities and socio-economic disciplines: 118 vacancies.

These figures highlight the need to implement measures to attract and retain highly qualified teachers in the VET system, such as developing and introducing training programs, improving qualifications, and creating incentives to draw experts into this field. This is a key aspect in ensuring the quality of education for college students.

Professional development for teachers is primarily carried out through advanced training courses. In 2022, 9,475 teachers completed such courses, with 5,200 of them trained at NJSC "Talap," which serves as the main provider of advanced training programs.

4.3.2 Main reform initiatives

Since the previous round of the Torino Process, Kazakhstan has implemented several reforms to improve the quality of its educational system. These include the Law "On the Status of Teachers" of the Republic of Kazakhstan, the Government's "Quality Education: Educated Nation" Resolution, the "Concept for the Development of Preschool, Secondary, Technical and Vocational Education in the Republic of Kazakhstan for 2023-2029," the national project "Ұлттық рухани жаңғыру," and the order "On Approval of Criteria for Evaluating Educational Organisations." Since 2020, a score-rating letter system has been used to assess students' educational achievements.

Since 2022, Kazakhstan has implemented targeted training of students based on enterprise requests. The main objective of colleges is to teach the specific competencies required for particular industries, so curricula and programs are coordinated with the respective enterprises. The advantage of this state order system is that, after graduation, students will be employed by the company that requested their training. This year, more than 133,000 applicants were accepted under the state order.

A few key points to note:

- **Guaranteed employment:** Providing guaranteed employment after graduation serves as a strong incentive for students' learning and development. It also helps reduce unemployment and enhances the competitiveness of graduates.
- **Active collaboration with enterprises:** Aligning curricula with the needs of enterprises ensures that education addresses the real requirements of industries, encompassing both theoretical and practical aspects essential for training qualified personnel.

It is also important to highlight that this cooperation benefits not only students but also teachers, who can take part in internships at partner enterprises after agreements are established. At the end of the training, the enterprise will conduct the final exam for the students.

Additionally, a targeted state order will be provided for children with special educational needs, which is an important and commendable initiative that Kazakhstani employers—particularly in enterprises, businesses, and manufacturing—should pay attention to. Overall, the targeted state order is a key aspect in developing human resources and filling specialist positions.

4.3.3 Torino Process in Kazakhstan in 2023

In 2023, at the request of the Principal, the format of the Torino Process was modified. The main objective of the study is to develop a tool for assessing the quality of education in VET organisations.

To achieve this, NJSC "Talap" created an action plan that outlines several key activities aimed at ensuring the effectiveness of the research. These include:

- Analysis and synthesis of existing tools for assessing the quality of education;
- Development of a structure and a new model for assessing the quality of education.

Analysis and synthesis of existing tools for assessing the quality of education

Several tools are available in the country for assessing the quality of education for VET students.

Monitoring Learning Achievements of Students (MODO) in Kazakhstan: MODO has been in place since 2021, in accordance with the established rules. It is an important element of Kazakhstan's national system for assessing educational quality, representing systematic, independent monitoring of education quality across institutions. MODO was introduced in 2021 to manage education quality under Article 55 of the Law "On Education" of the Republic of Kazakhstan. It was first conducted in technical and vocational, post-secondary education (VET) organisations in the format of comprehensive testing, aimed at assessing the mastery of general education disciplines in compliance with the State Compulsory Educational Standard (GOSO) for VET.

Test tasks are developed by the National Testing Center (NTC), and MODO is organised and conducted by representatives of territorial departments responsible for quality assurance in the field of education, under the Committee for Quality Assurance in Education of the Ministry of Education. Control over compliance with the rules for conducting MODO in educational organisations is overseen by authorised representatives of the Ministry. The National Academy of Education, named after Y. Altynsarin, provides a comprehensive analysis of MODO results, including conclusions and recommendations for improving the quality of education at the national, regional, and institutional levels.

The purpose of MODO is to evaluate and monitor students' educational achievements across different levels of education. The system provides objective information on the quality of education and the effectiveness of educational programs. It employs a standardised testing approach and is based on state compulsory educational standards and criteria determined by expected learning outcomes. MODO in VET organisations is conducted through electronic testing in the language of instruction, covering four subjects: "Kazakh Language," "History of Kazakhstan," "Mathematics," and a subject specific to the student's field of study (such as "Biology," "Physics," "Chemistry," or "Geography").

Testing is conducted annually for second-year VET students in the fourth quarter or third-year students in the second quarter. MODO is also accompanied by a mandatory questionnaire for students, teachers, and VET administration, which includes questions on personal characteristics, socio-economic background, and educational environment.

Current monitoring, intermediate, and final assessment of students in VET organisations: Current monitoring is conducted in accordance with the Model Rules for Monitoring Academic Performance, Intermediate and Final Assessment of Students in VET Organisations. The process of knowledge control in VET institutions involves current monitoring, intermediate, and final assessments, all of which are methods of evaluating student progress:

- Current monitoring refers to a systematic check of students' knowledge, skills, and abilities carried out by teachers during classes.
- Intermediate assessment evaluates students' mastery of subjects, courses, or modules as required by the state standard.
- Final assessment is conducted at the end of the program to determine students' mastery of the subjects, courses, or modules specified by the state standard.

Properly organised monitoring helps teachers assess students' knowledge, skills, and abilities, providing timely support where needed and helping achieve educational goals. It also allows teachers to reflect on their own successes and challenges.

Five main forms of knowledge and skills assessment are used:

1. Frontal (the teacher prepares a task for all students, who give brief answers).
2. Group (students are divided into subgroups, each completing a task collaboratively).
3. Individual (each student completes a task independently, providing insight into their personal abilities).
4. Combined (a mix of individual, group, and frontal methods).
5. Self-control (students check their own work using sample answers).

In the context of e-learning and distance education, student performance is monitored through:

- Knowledge checks (oral or written, including tests);
- Assessment of homework completion;
- Evaluation of independently gathered information (essays, reports, presentations);
- Assessment of creative or independent work;
- Evaluation of skills in performing practical and laboratory tasks.

VET students also participate in the Programme for International Student Assessment (PISA), organised by the Organisation for Economic Cooperation and Development (OECD). PISA evaluates the knowledge and skills of 15-year-olds in three areas: reading, mathematics, and science.

All the tools mentioned for assessing the quality of education have both strengths and weaknesses. A thorough understanding of these tools allows for more effective use and adaptation to the specific conditions of the educational environment.

TABLE 4.7 ADVANTAGES AND DISADVANTAGES OF CURRENT TOOLS FOR ASSESSING THE QUALITY OF EDUCATION

Tools for the quality of education of students	Advantages	Tools for the quality of education of students
MODO	<p>Objectivity: MODO provides objective data on achievements, students, and effectiveness of education based on standardised assessment methods.</p>	<p><i>Limited area of evaluation.</i> MODO focuses primarily on subject areas and key competencies, which may not take into account other aspects of student development, such as socio-emotional skills, professional competencies, practical skills or creativity.</p> <p>Determining the causes of the results: MODO can provide data on the achievements of students, but does not always provide detailed information about the reasons for these results. Further analysis is required to better understand the causes for success or failure of students.</p> <p>Evaluation format: Some critics of the MODO system believe that standardised tests and evaluation tools do not always fully reflect the individual characteristics and potential of students.</p> <p>Limitations in the assessment of practical professional skills: MODO focuses on assessing knowledge and academic achievements, which may not fully reflect the practical professional skills and competencies that are important in VET. Practical professional skills cannot be objectively evaluated by theoretical methods (testing).</p> <p>Insufficient attention to the specifics of VET: MODO is designed for a wide range of educational institutions, and its methodology may not take into account the specific features and needs of the VET RK. This may lead to an incomplete assessment of the quality of education in these institutions.</p> <p>Limited ability to assess competencies: MODO is most likely focused on the evaluation of knowledge and skills, whereas in the VET RK special attention is paid to the development of professional competencies of students.</p>
Current monitoring of academic performance	<p>Monitoring: The system allows continuous monitoring of educational achievements, subject to the coverage of all colleges and regularity of conduct, which allows identifying</p>	<p><i>Limited use of results.</i> Many teachers at the beginning of the academic year do not acquaint students with the system of current control in their subject/module. In addition, teachers do not promptly</p>

	trends and changes in the learning process.	communicate the current control mark to students, justifying it in the presence of the whole group and putting the assessment in the theoretical learning journal. Students' parents (legal representatives) do not always receive timely and reliable full information about the results of the current monitoring of students' performance, as well as comments from teacher on the results of the current monitoring of students' performance in an accessible form
Intermediate assessment	Comparison of results: MODO allows you to compare the results of students at the regional and international levels, which helps to identify the strengths and weaknesses of the education system.	<i>Selection of forms of assessment.</i> Intermediate assessment mark is not taken into account when issuing the annual mark. No individual work is carried out with underachieving students. The same grades characterise the same quality of students' knowledge and the same comments from the teacher. "Generosity," or "indulgence." Parents (legal representatives) do not have sufficient information about the intermediate assessment.
Final assessment	Assessment of the quality of education: MODO can be used in the VET RK to assess the quality of education and the effectiveness of educational programs.	

4.4 Development of a structure and new model for tools to assess quality in education

To develop a new model of tools for assessing the quality of education, NJSC "Talap" carried out several activities. These included studying international experience in ensuring the quality of vocational education and training, drafting normative documents such as the Regulations on Conducting the Assessment of the Quality of Education, Guidelines for the Application of the Education Quality Assessment Toolkit, and making recommendations for improving current normative/legal instruments (NPAs) to ensure the quality of education.

Study of international experience in ensuring the quality of VET: Several leading international systems for monitoring and assessing the quality of vocational education and training were analysed, including the European Quality Assurance Reference Framework for Vocational Education and Training (EQAVET), the Programme for the International Assessment of Adult Competencies (PIAAC), the Longitudinal Surveys of Australian Youth (LSAY), the Cedefop European Skills and Jobs Survey (ESJS), among others. The goals, objectives, methodologies, and assessment tools used by these systems were reviewed, and the potential for adapting and applying specific elements of these systems to the VET system in Kazakhstan (VET RK) was analysed. The results of this analysis were used to develop and improve the system for monitoring and evaluating the quality of vocational education and training in VET RK.

To develop the regulations, guidelines for using educational quality assessment tools, and recommendations for improving existing NPAs, NJSC "Talap" organised online meetings (focus groups), surveys, and round tables with interested VET stakeholders to gather comprehensive and high-quality information.

4.4.1 Survey

The survey used a questionnaire as the data collection method, conducted among participants from various categories, including students, teachers, and employers. A key aspect of the study was the anonymity of participants and confidentiality of their responses, ensuring greater openness and honesty in the feedback.

All suggestions and recommendations from participants were taken into account. The survey questions covered a range of topics, including the knowledge and use of quality assessment tools, evaluation methods used in the learning process, interactions between colleges and enterprises, and an overall assessment of the quality of training.

A total of 46,436 participants took part in the survey, including 39,884 students, 5,595 teachers, and 957 employers. This broad range of participants provided a diverse perspective on the quality of education, offering insights from various viewpoints, including an international perspective.

The survey results contain valuable information about the opinions and preferences of students, teachers, and employers regarding the educational process.

Students

Quality of training: Most students rated the quality of training as excellent, reflecting a positive educational environment in the colleges.

Demonstration exam: 73% of students consider it a valuable or key tool for assessing education, particularly regarding professional skills.

Assessment of task and method diversity: More than half of the students suggested the need for more diverse forms of tests and assignments that provide a deeper understanding of the materials.

Electronic diary: Many students recommended introducing an electronic diary with additional features.

Teachers

Evaluation methods: More than half of the teachers surveyed prefer using verification works (tests), which may lead to the continued use of traditional assessment methods.

External quality assessment tools: Most teachers acknowledge the use of existing external tools but note their shortcomings, such as issues with ratings and criteria measurement, and call for improvements.

Emphasis on academic autonomy: Teachers suggested placing more emphasis on academic autonomy, which they believe can foster critical thinking and research skills in students.

Employers

Cooperation with VET organisations: Most employers closely collaborate with colleges and monitor the quality of graduates' education.

Evaluation tools: Employers highly value tests, examinations, practical tasks, and participation in projects. The importance of oral exams is also increasing.

High quality of graduates: Over 90% of employers expressed satisfaction with the quality of graduates.

Focus group

The focus group was conducted online with teachers, students, and employers (1,087 respondents from 20 regions, including 375 teachers, 364 students, and 348 employers). A set of questions regarding the assessment of education quality was developed for the focus groups, such as: What evaluation tools do respondents know? Which ones are being used? How effective are they, and what are their strengths and weaknesses? What is expected from a new tool? Who should implement and monitor it, and how should the evaluation process be conducted? In addition, an online survey was conducted for participants.

Conclusion

According to the results of the online survey, 51% of teachers reported that colleges conduct a demonstration/qualification exam as part of the final assessment, while 44% indicated that final exams for general professional disciplines (OPD), special disciplines (SD), or modules are conducted orally. Among students, if given a choice, 29% preferred the final exam on OPD, SD, or modules in the form of comprehensive testing, 27% favoured written exams, and 27% chose a demonstration/qualification exam, including one based on WorldSkills standards.

Both teachers and students expressed a preference for the practical demonstration of skills. Overall, 59.7% of focus group respondents noted the need for an external quality assessment (58% of teachers, 56% of students, and 65% of employers).

In the target group interviews, all participants unanimously emphasised the importance of using an integrated approach to assessing education quality, focusing on both theoretical knowledge and practical skills, with a greater emphasis on the latter. Participants also preferred a variety of response formats, including open-ended formats, which they felt would contribute to a deeper and more comprehensive understanding of the material. The use of open-source code for testing was suggested as beneficial for ensuring transparency.

Respondents also highlighted the need to account for regional characteristics, the specifics of each professional field, and individual student differences. Additionally, involving employers, industry representatives, and universities in the evaluation process was considered crucial for effective education. Respondents stressed the importance of collaboration between employers and teachers in creating evaluation materials. To achieve a more accurate and relevant assessment, the use of competency maps, professional standards, and educational programs was recommended. Establishing clear criteria for assessing knowledge and skills was viewed as a fundamental aspect of an effective evaluation process, with the evaluation not being limited to standard systems like CIS.

According to the survey, 24% of focus group respondents were opposed to conducting an external quality assessment. After discussions with task forces, opinions shifted somewhat, with 7-8% of teachers and students suggesting that final assessments involving employers already provide an objective picture of skills, and adding another layer of monitoring could seem redundant. The introduction of additional monitoring and evaluation procedures may require significant time and financial resources.

Round Tables: To ensure the qualitative development of education quality assessment tools, two round tables were held. In the first meeting, participants were introduced to the study's goals and objectives for 2023. During this round table, participants proposed the creation of a working group to develop recommendations for assessing education quality. The second round table presented the results of the study to all stakeholders.

Based on the results of these events, NJSC "Talap" developed:

- **Draft regulations on conducting the assessment of the quality of education in organisations:** These regulations were designed to establish a methodology for the education quality assessment procedure (POK) in organisations. POK will be a systematic tool for the external assessment of learning outcomes, independent of VET organisations, aimed at determining the quality of education. The process will include preparation, execution, result processing, analysis, and the provision of methodological support, along with recommendations for improving education quality. It will involve practical work among students applying for qualifications upon completion of the relevant professional module(s) and/or special disciplines. The development of diagnostic tools will be carried out by an organisation designated by the authorised body in education (for more details, see Appendix 1).
- **Guidelines for the application of education quality assessment toolkit:** These guidelines were developed to provide methodological support for the systematic and effective use of education quality assessment tools. They are based on normative documents regulating the training process in VET. The guidelines outline the process of conducting POK, the requirements for task content, criteria for assessing results, reporting, and recommendations for improving education quality.
- **Amendments to normative documents:** Amendments to the normative documents regulating the student assessment process were introduced. Many students and teachers indicated that some existing tools for assessing education quality are unsuitable for evaluating professional skills. As a result, measures were taken to update the relevant normative documents.

4.5 Conclusions and recommendations

1. **The network of VET organisations decreased by 14 units over three years.** This reduction could be attributed to several factors:
 - Profiling: There may have been an optimisation of the college network to better align with the current needs of the labour market and high-demand specialisations.
 - Reorientation of the VET system: In response to changes in the economy and labour market demands, the VET system may have shifted its focus to more in-demand and related specialties, affecting the structure of the college network.

- Mergers and closures: The merging of several colleges or the closure of private colleges could also have contributed to the decrease in the total number of VET institutions.
- Labour market demand: The reduction in the network may reflect an adaptation to labour market needs and more efficient use of resources.

These steps are likely aimed at improving the quality of education and ensuring better alignment with the requirements of the modern labour market.

2. **The VET system is seen as an affordable "springboard" for young people to gain education in in-demand specialties and plays an important role in socialisation.** Additionally, there was a 6% increase in the number of students enrolled in VET in 2022. This growth may indicate heightened interest among young people in technical and vocational education, possibly due to greater awareness of labour market prospects in these areas. Overall, these data suggest the successful integration of the VET system into the educational environment, meeting labour market demands and driving student interest.
3. Under the **new admission mechanism, college entrance examinations have been cancelled**, except for special tests in pedagogical, medical, and creative specialties that require specific and/or creative training. The distribution of students to colleges is automated, removing the human factor. The competition for state-funded training is conducted through the information systems of educational departments, based on the average competitive score, grades in compulsory and specialised subjects, and quota categories.
4. **Dual education** is recognised as an effective method for integrating theoretical knowledge with practical experience. However, despite the fact that most colleges in the Republic have implemented dual education principles, the proportion of students participating in this process remains relatively low at 23.2%.
5. The "Free VET for All" project, launched in 2017, has become a key driver of accessible education in colleges, particularly in technical, technological, and agricultural specialties, as well as in the service sector. The project is primarily aimed at supporting **socially vulnerable youth, including those with inclusive education needs.**
6. Participation in international competitions like **WorldSkills and EuroSkills** provides students and young professionals with unique opportunities to showcase their skills on the world stage and exchange experiences with other countries. The success of Kazakhstan's team at the EuroSkills Championship in Poland, where they won seven prizes, is particularly noteworthy, highlighting the high level of training in various professional fields.
7. The **Demonstration Exam**, aligned with WorldSkills standards, plays a significant role in assessing the quality of vocational training. This tool not only allows students to demonstrate their skills but also fosters stronger collaboration between educational organisations and employers. The introduction of the Skills Passport system and the registration of young professionals in a database greatly facilitate the search and selection of qualified personnel. The increasing number of colleges applying the demonstration exam indicates its growing recognition and success. This also suggests that educational institutions in Kazakhstan are actively adapting to modern labour market requirements and are focused on equipping graduates with the skills needed for successful careers.

8. A **stable employment rate** of 83% to 85% in recent years, including 83% in 2022, reflects that colleges provide quality training that meets labour market needs. This result also indicates the successful integration of training programs with the requirements of modern industry and enterprises.
9. The transition to a new system of qualification categories for **VET teachers** represents a significant change that could affect the structure and quality of teaching staff. It is important to assess this process, considering key aspects such as the increase in the number of teachers without a category, qualification testing, and additional pay and incentives.
10. The **survey results** support an integrated approach to developing the educational system, including technological innovations, improved assessment systems, program development, and fostering students' academic independence. These measures aim to create a more effective and higher-quality system for evaluating college education.
11. Qualitative data obtained from **focus groups** contributed to the development of the structure and new model for tools assessing education quality.