

TORINO PROCESS SYSTEM MONITORING REPORT: KAZAKHSTAN (2024 update)



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ACKNOWLEDGEMENTS

This 2024 Torino Process monitoring update was prepared by the European Training Foundation (ETF) using the most recent internationally comparable data from the ETF database of key indicators on education, skills, and employment (KIESE), with a cut-off date of August 2024. While this 2024 edition builds upon the foundation of the 2023 report, it was prepared without additional input or involvement from national authorities, experts, or stakeholders in Kazakhstan.

The 2023 edition of the monitoring report for Kazakhstan was put together in close partnership with national authorities, experts, and stakeholders in Kazakhstan under the coordination of Ms Kalamkas Algazinova, 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 Algazinova, and all stakeholders for their invaluable contribution and the provision of the accurate and extensive information in support of this monitoring exercise. The 2024 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, under the general supervision of Hugues Moussy, Head of the Human Capital Development Intelligence Unit, ETF.

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 released 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. In addition, the monitoring tracks how well policies and systems deliver to specific groups of learners: learners by age, female learners, young and adult learners at risk, and learners with a migrant background.
- **Scope of the 2024 update:** This monitoring report relies primarily on system performance indices derived from combining individual indicators from the ETF KIESE database. In 2023, the first year of the biennial monitoring cycle of the Torino Process, the data for calculating the SPIs included both KIESE indicators and self-assessments from countries to fill gaps where KIESE indicators were missing. In the second year of the cycle, 2024 – which is in focus of this report – only quantitative data from the KIESE database was collected and used to calculate the SPIs, without additional qualitative input from country self-assessments. Consequently, this monitoring report is intended as a selective, targeted update to the 2023 edition rather than a new, standalone report.
- **Access and attractiveness:** Since 2023, VET in Kazakhstan has seen mixed developments. Access to IVET remains strong, supported by initiatives like the 'Free vocational education and training' project aiming for universal enrolment of young people by 2025. However, lifelong learning opportunities for adults have declined, reflecting reduced employer-driven financial support and persistent gaps in CVET participation. This highlights ongoing disparities that disadvantage adult learners.

Progression to higher education has improved in international comparison, demonstrating strong vertical mobility, but horizontal mobility between general and vocational pathways remains limited. Graduation rates are a notable strength, bolstered by state incentives and the dual education system, which fosters retention and links learners to employment opportunities.

Efforts to enhance accessibility include cancelling admission exams, expanding career guidance for school students, and validating non-formal learning outcomes to facilitate transitions. While these measures strengthen the system's adaptability, gaps in lifelong learning and participation among adult learners remain pressing challenges that require further reform.

- **Quality and relevance:** Since 2023, VET in Kazakhstan has maintained strong alignment with labour market needs, particularly through dual education initiatives and close collaboration with employers. These efforts have supported employability and increased the employment rate of graduates. While performance in foundational skills has improved, challenges persist, with young learners continuing to underperform compared to international standards.

Progress in digital skills development has been mixed. While infrastructure improvements, such as better computer-student ratios, have expanded access to digital tools, ICT skill levels among learners have not significantly improved. Similarly, environmental and industrial safety topics are included in VET curricula, but the emphasis on green skills and climate change education remains moderate, highlighting the need for stronger focus in this area.

Colleges collaborate with employers to align curricula with industry needs, ensuring hands-on training and relevant qualification exams. However, age restrictions on workplace training remain a limitation. Despite these challenges, initiatives like "Free Vocational and Technical Education for All" and the "Еңбек" programme expand access to skills training, particularly for adults. While the system shows strengths in short-term labour market responsiveness, adapting to emerging

demands like digital transitions and broader foundational skill development requires continued reform.

- **Excellence and innovation:** Since 2023, VET in Kazakhstan has had mixed progress with the promotion of excellence. Social inclusion and equity remain strengths, benefiting from a consistent focus on supporting vulnerable learners. However, areas such as pedagogy, programme content, and governance show little improvement, highlighting the need for stronger policies to boost overall quality. Kazakhstan performs above the international average in promoting innovation in the VET in areas like access, quality, and relevance of learning. However, improvement since 2023 has been largely due to declines in other countries, as innovation efforts within Kazakhstan remain constrained to small pilot projects rather than system-wide initiatives. There has also been a drop in support for participation and graduation, linked to reduced infrastructure and peer-support opportunities for learners. Efforts to address these challenges include reforms under the "Quality education – Educated nation" project, which expands access to vocational training and lifelong learning.
- **System management and organisation:** The area of system organisation has seen significant changes since 2023, with a notable decline in "Material base," "Funding," and "Human resources," attributed to challenges in infrastructure, financial resources, and professional capacity. In contrast, a 3.01-point improvement in "Participatory governance" reflects shifts in international benchmarks rather than national progress. Despite these setbacks, the country continues to excel in quality assurance and public accountability, supported by systematic monitoring, a robust legal framework, and recent updates to its standards for VET quality assurance.

Kazakhstan's investments in the national educational database (NEDB) aim to address ongoing challenges with data availability and comparability. Although progress in this area has lagged behind international improvements, efforts to modernise VET facilities and provide modern training equipment to institutions have yielded tangible benefits, with reductions in shortages of educational materials and infrastructure reported in 2024. The decline in teacher certification rates, alongside a rise in staff shortages, underscores challenges in human resource capacity. However, targeted resource allocation and policy measures have mitigated some material and infrastructure issues, contributing to an improved learning environment, according to the monitoring data.

- **Quality and reliability of monitoring evidence:** In 2024, the monitoring results of Kazakhstan became even more comparable internationally than those of other countries in the Torino Process sample, on average. However, the results remain 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 and 2024 rounds of Torino Process monitoring.

1. INTRODUCTION

1.1 Focus of monitoring and scope of reporting

This ETF report summarises the results of monitoring VET system performance in Kazakhstan for 2024 in the context of the Torino Process initiative.¹ It updates the previous edition of the monitoring report, which covered the period up to 2023.

To allow for tracking country progress over time, this new edition retains the themes selected for monitoring and reporting in 2023. As in 2023, it discusses the performance of the education and training system in Kazakhstan, particularly VET, in providing opportunities for lifelong learning which are accessible, of good quality, and well-managed (Chapter 2). The report also assesses the equity of these opportunities for learners of different backgrounds, genders, origins, and ages (Chapter 3).

The focus of monitoring in 2024 remains on the contribution of initial and continuing VET (IVET and CVET) to the learning activities of youth and adults 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.

"Performance," in this context, refers to the extent to which the VET system delivers on a targeted selection of commitments to learners and other stakeholders in support of lifelong learning (LLL). The term "VET system" encompasses the network of institutions, people, policies, practices, resources, and methodologies in a country and the way they are organised to provide individuals of any age with the practical skills, knowledge, and competencies needed for specific occupations, trades, or professions.²

As in 2023, 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. The dimensions are described at the beginning of Section 2.1 of this report.

To bring these dimensions of VET performance closer to real-world contexts, they were further broken down into **30 specific policy and system outcomes**. Here, 'outcomes' refer both to the commitments made by the education system—pledges to achieve specific results for defined groups of learners and stakeholders—and to the measurable results that demonstrate how successfully these commitments have been met in each country. For instance, an outcome such as "access to initial VET" indicates the presence of a commitment to provide access, and it also identifies an area of measurement of system performance in fulfilling this commitment. The 30 outcomes are described at

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 For a full overview of the Torino Process system performance monitoring framework and its conceptual underpinnings, see <https://bit.ly/47YGA6I>.

the beginning of the corresponding section and subsections in this report (Section 2.2, Subsections 2.2.1 to 2.2.4).

At the final step of disaggregation in the Torino Process monitoring framework, the 30 outcomes are broken down into specific, measurable targets (**monitoring targets**) that reflect how the 30 outcomes apply to the different groups of learners they are intended to serve. These groups include youth and adults, female learners, socio-economically disadvantaged youth, adults at risk of exclusion (long-term unemployed, adults with low or no education, economically inactive adults), and first-generation migrants. In 2023 and 2024 the Torino Process monitoring framework tracks a total of 82 monitoring targets: 30 core targets that reflect the outcomes irrespective of who the learners are (outcomes for the general learner population, so to speak), and 52 additional targets focused on specific groups of learners. A selection of results related to these additional, learner-specific targets is discussed in Section 2.3 of this monitoring report.

1.2 Monitoring metrics

In the context of Torino Process monitoring, performance is measured through a system performance index (SPI). The index is available for each of the monitoring targets in the Torino Process framework. The SPIs can range from 0 to 100, where 100 indicates maximum or best performance.

These SPIs are aggregate metrics which combine multiple administrative or big data indicators to provide a more comprehensive and realistic picture of what policies and systems are delivering across countries. Although such synthetic indices are more fragile and unstable than individual data points, they are necessary, as many of the outcomes in the Torino Process monitoring are complex and multifaceted and therefore cannot be fully captured by a single indicator. The diversity of learners within countries also limits how effective a single indicator can be in representing performance across various populations or settings.

To address this, the ETF monitoring combines conceptually coherent sets of indicators from its database of key indicators on education, skills, and employment (KIESE) to create the SPIs.³ This approach produces one index for each of the 82 outcomes monitored through the Torino Process.

The SPIs are intuitive and user-friendly way of presenting system performance even in areas that are otherwise difficult to monitor with traditional administrative measures. The single score they provide simplifies the interpretation of the otherwise complex data and is easier to use for planning and decision-making purposes. Therefore, in 2024, these indices, along with the KIESE data used for their calculation, continue to serve as key information source for the updated monitoring reports of all countries participating in the Torino Process.

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). The report also provides an international average score⁴ for these results for reference purposes, and, where relevant, it showcases disaggregated data used to calculate the system performance indices and information provided by national authorities through the monitoring

³ The full list of KIESE indicators and the selection of indicators used as proxies in constructing the Torino Process SPIs (KIESE SPI indicators) can be found at <https://bit.ly/4exAkF0>.

⁴ “International average” refers to the average for countries participating in the Torino Process.

questionnaire. Links to the full dataset for Kazakhstan and to the Torino Process monitoring framework and methodology can be found in the third and final section of this document.

1.3 Scope of update in 2024

As in 2023, this monitoring report relies primarily on system performance indices derived from combining individual indicators from the ETF KIESE database. In 2023, the first year of the biennial monitoring cycle of the Torino Process, the data for calculating the SPIs included both KIESE indicators and self-assessments from countries to fill gaps where KIESE indicators for certain monitoring targets were missing.

In the second year of the cycle, 2024 – which is in focus of this report – only quantitative data from the KIESE database was collected and used to calculate the SPIs, without additional qualitative input from country self-assessments. This lighter approach was adopted to reduce the reporting burden on countries by removing the need to provide detailed questionnaire responses every year. In addition, to maintain consistency in the types of data used to calculate system performance indices across years, the 2024 update of monitoring results included only those SPIs for which quantitative data was available in both 2023 and 2024.

Since the 2024 update of performance indicators relies solely on internationally comparable KIESE data, without supplementary qualitative inputs from countries, SPI values for which such data was not available for Kazakhstan in 2024, or for which it was not available consistently in both years, have remained unchanged from 2023. In some instances, this also means that some sections of the report may have remained the same as in 2023.

Where that happens, it does not necessarily indicate a lack of progress or stagnation; it may simply reflect the absence of new internationally comparable data beyond what was collected in 2023, or that data is available for only one of the two reference years (2023 or 2024). This may also result in fewer noticeable shifts in the landscape of system performance in 2024 as reflected by the SPIs. Consequently, this monitoring report is intended as a selective, targeted update to the 2023 edition rather than a new, standalone report.

Considering that each SPI refers to a specific monitoring target which tracks policy and system performance across a wide range of learner groups and areas in education and training, any change in the SPIs indicates a corresponding shift in performance in support of learners in those areas. Therefore, the proportion of monitoring targets with updated SPI values in a country shows, on average, how much the performance of education and training in that country has changed from one year to the next.

How many of the 82 system performance indices available for Kazakhstan have shifted between 2023 and 2024? In other words, what was the scale of changes in policy and system performance in the country over that period? Table 1 shows the total number of monitoring targets with validated SPI changes by country participating in the Torino Process monitoring, as well as the percentage of all monitoring targets in the framework that have changed between 2023 and 2024.

TABLE 1. AVERAGE SCALE OF CHANGE IN POLICY AND SYSTEM PERFORMANCE, KAZAKHSTAN AND ETF PARTNER COUNTRIES (2023-2024)

| Country | Monitoring targets with validated change (total number) | Monitoring targets with validated change (share of all targets) |
|---------|---|---|
| KAZ | 27 | 32.93% |

| | | |
|-----|----|--------|
| ALB | 24 | 29.27% |
| ARM | 12 | 14.63% |
| AZE | 12 | 14.63% |
| BIH | 33 | 40.24% |
| DZA | 1 | 1.2% |
| EGY | 28 | 34.15% |
| GEO | 32 | 39.02% |
| JOR | 32 | 39.02% |
| KGZ | 12 | 14.63% |
| LBN | 11 | 13.41% |
| MAR | 31 | 37.8% |
| MDA | 15 | 18.29% |
| MKD | 33 | 40.24% |
| MNE | 33 | 40.24% |
| PSE | 10 | 12.2% |
| SRB | 43 | 52.44% |
| TUN | 21 | 25.61% |
| TUR | 46 | 56.1% |
| UKR | 30 | 36.59% |
| XXK | 25 | 30.49% |

Source: Torino Process database

System performance in Kazakhstan has seen more noticeable shifts since 2023 compared to many other countries in the Torino Process monitoring. The data indicates that 27 of the 82 monitoring targets (32.9%) were affected by an SPI change between 2023 and 2024, with many of the changes occurring in the domain of system management and organisation, as will be discussed later.

This places Kazakhstan on the upper end of the spectrum of change, similar to Albania, Egypt, Morocco or Ukraine, which had a change in performance of similar intensity. Like for other countries, however, it is important to note that the table includes only targets with validated, data-driven changes. They likely present a more conservative estimate of overall shifts in system performance in Kazakhstan since 2023 than may actually be occurring.

1.4 Comparability and reliability of monitoring data in Kazakhstan

In addition to messages about system performance, the Torino Process 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. In 2023, this mix of KIESE and self-assessment data led to the creation of three supplementary indices to help interpret the robustness of country results: an index of their international comparability, an index for the risk of bias in the results, and a self-assessment index which tracks the degree to which countries tend to be self-critical.

The international comparability index tracks the proportion of internationally comparable KIESE indicators available for calculating the system performance indices of each country. The higher the

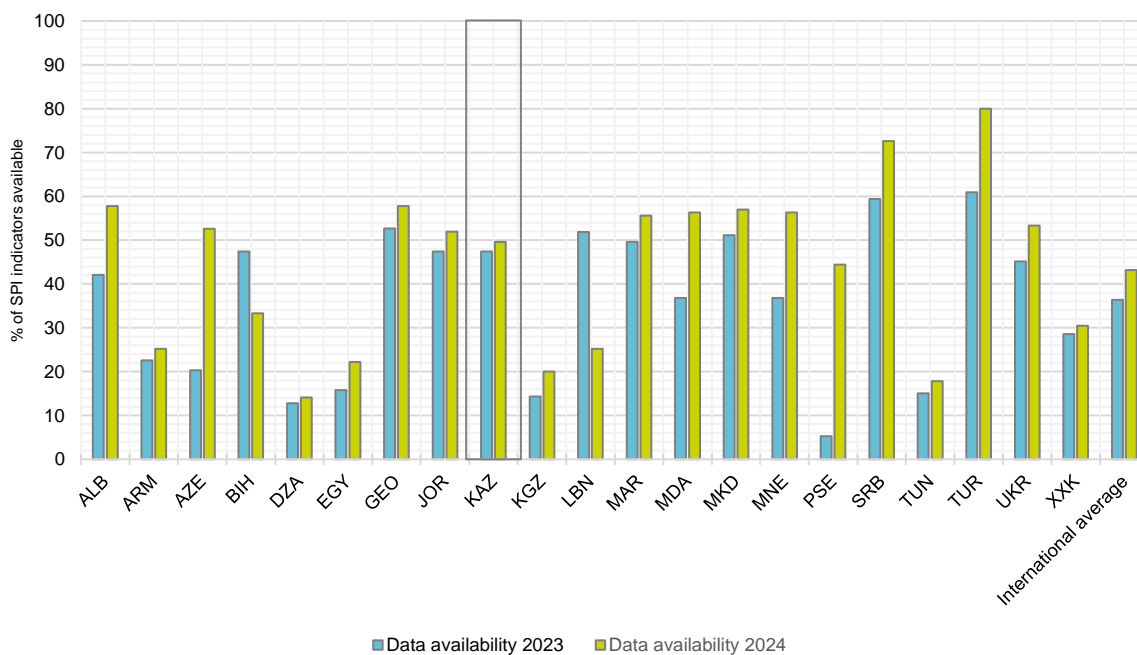
share of indicators available, the more internationally comparable the monitoring results. The risk of bias index, on the other hand, measures how many of the 82 SPIs per country are based on quantitative data versus self-assessment responses; a greater reliance on self-assessments increases the risk of bias. Finally, the self-assessment index reflects whether a country tends to be self-critical in reporting its policy and system performance through the self-assessment questionnaire.

In 2024, two of these indices remain unchanged, but still relevant: the risk of bias index and the self-assessment index, both of which are carried over from 2023. The risk of bias index remains relevant because it reflects the proportion of SPIs based on quantitative data versus self-assessment responses. This mix, which was established in 2023, continues to define the data composition of the 2024 results, as no new self-assessment evidence was collected from countries and thus, the proportion of SPIs which in 2023 relied on self-assessment responses by countries has remained the same for all of them.

The self-assessment index remains unchanged as well. Its relevance stems from the fact that it provides insights into how countries tend to report within the self-assessed portion of the results. Since no new self-assessment responses were collected in 2024, this index still continues to reflect tendencies toward positive or critical self-reporting within the self-assessed data from 2023.

In the group of countries covered by Torino Process monitoring in 2023 and 2024, Kazakhstan is in the second-highest quartile for the international comparability of its monitoring results. For over a decade, Kazakhstan has made substantial efforts to improve its capacity to collect and use data on education and training and to participate in international data collection initiatives and surveys. These efforts likely contribute to the performance of Kazakhstan in this area of monitoring (Figure 1).

FIGURE 1. AVAILABILITY OF INTERNATIONALLY COMPARABLE DATA FOR SYSTEM PERFORMANCE MONITORING, KAZAKHSTAN AND ETF PARTNER COUNTRIES (2023-2024)



Source: Torino Process database

This result does not mean that evidence is always available where it is most needed. However, it does indicate that Kazakhstan is less affected by a lack of internationally comparable data on the performance of its VET and lifelong learning systems compared to other countries in the Torino Process.

The monitoring results of Kazakhstan also show a somewhat lower risk of bias, as more than 30% of them are based on quantitative data. While this share is higher than the international average, it still means that nearly 70% of the findings in this round rely on self-assessment responses.

These self-assessments, gathered through a supplementary monitoring questionnaire, indicate that Kazakhstan rates the performance of its VET and lifelong learning systems positively, with a score well above the midpoint that represents a neutral self-assessment. Kazakhstan is, in fact, the least critical of its system performance among the countries included in the 2023 and 2024 rounds of monitoring. Therefore, when interpreting the results in Section 2 of this report, it is important to consider this context: while the results are valid and comprehensive, they rely heavily on self-assessments that are more positive than those of any other country in the monitoring sample.

If the risk of bias in the monitoring results depends on the availability of internationally comparable evidence, and if Kazakhstan has more of this data in 2024 than in 2023, why has this not improved the reliability of monitoring results regarding risk of bias?

As noted earlier, to ensure consistency in the types of data used for calculating system performance indices across years, the 2024 update of monitoring results included only those SPIs for which quantitative data was available in both 2023 and 2024. Consequently, the mix of SPIs by data type (quantitative or self-assessment) in 2024 remained unchanged from 2023. Since the number of SPIs based on self-assessment responses in Kazakhstan also remained the same, the risk of bias remains consistent. Moreover, even if this methodological limitation were set aside, simply increasing the volume of internationally comparable data would not necessarily reduce this risk, as additional data might primarily enrich SPIs already based on quantitative evidence in 2023.

2. MONITORING RESULTS: KAZAKHSTAN

2.1 Policy and system performance in 2024: 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 2.

TABLE 2. DIMENSIONS OF POLICY AND SYSTEM PERFORMANCE MONITORING THROUGH THE TORINO PROCESS

| Code | 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 | 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. |

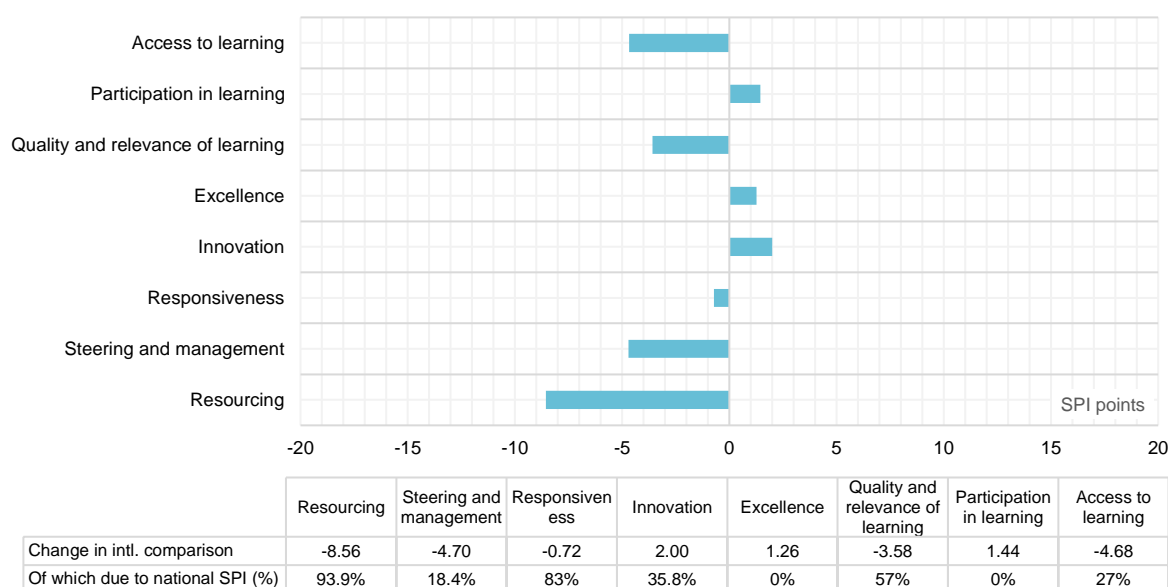
This chapter of the monitoring report presents the performance of the VET system in Kazakhstan across the eight dimensions of Torino Process monitoring, and the evolution of that performance since 2023. Since data is currently available for only two years (2023 and 2024), it is too early to determine whether a consistent pattern or direction of change – a trend – exists over time, both in Kazakhstan and in other countries participating in the Torino Process monitoring.

One way to address this temporary limitation is to track the relative standing of the country against the international average instead of looking at the national data in isolation. This approach allows for a more meaningful assessment of progress by placing the national monitoring results within a broader context, to show not only if performance in a given domain of monitoring is improving or declining, but also how that compares to developments elsewhere.

Looking at relative changes in performance, specifically the difference between national and international monitoring results, can be a useful proxy for the evolution of policy and system performance in a country even when a limited number of data points, or data points which lack update, restrict the ability to establish longer term performance trends. The approach also draws attention to the changing average performance of countries, which allows for a discussion of the broader context and how shifts in the average might reflect trends or challenges shared by countries participating in the monitoring.

Figure 2a provides a snapshot of how the performance of VET in Kazakhstan has evolved in the eight dimensions of monitoring since 2023, viewed through the lens of the average level of performance of other countries participating in the Torino Process. It presents the SPI point changes for each area – how much the results have diverged or converged relative to the international average since 2023 in each category – and it also distinguishes whether these changes stem from a shift in national SPIs and/or shifts in the broader landscape of cross-country performance. Keeping track of this information is important to avoid the appearance of progress or decline in cases where there is no change in national performance but only an evolution in the international context.

FIGURE 2A. CHANGE IN SYSTEM PERFORMANCE BY MONITORING DIMENSION: KAZAKHSTAN AND INTERNATIONAL AVERAGE (2023-2024)



Source: Torino Process database

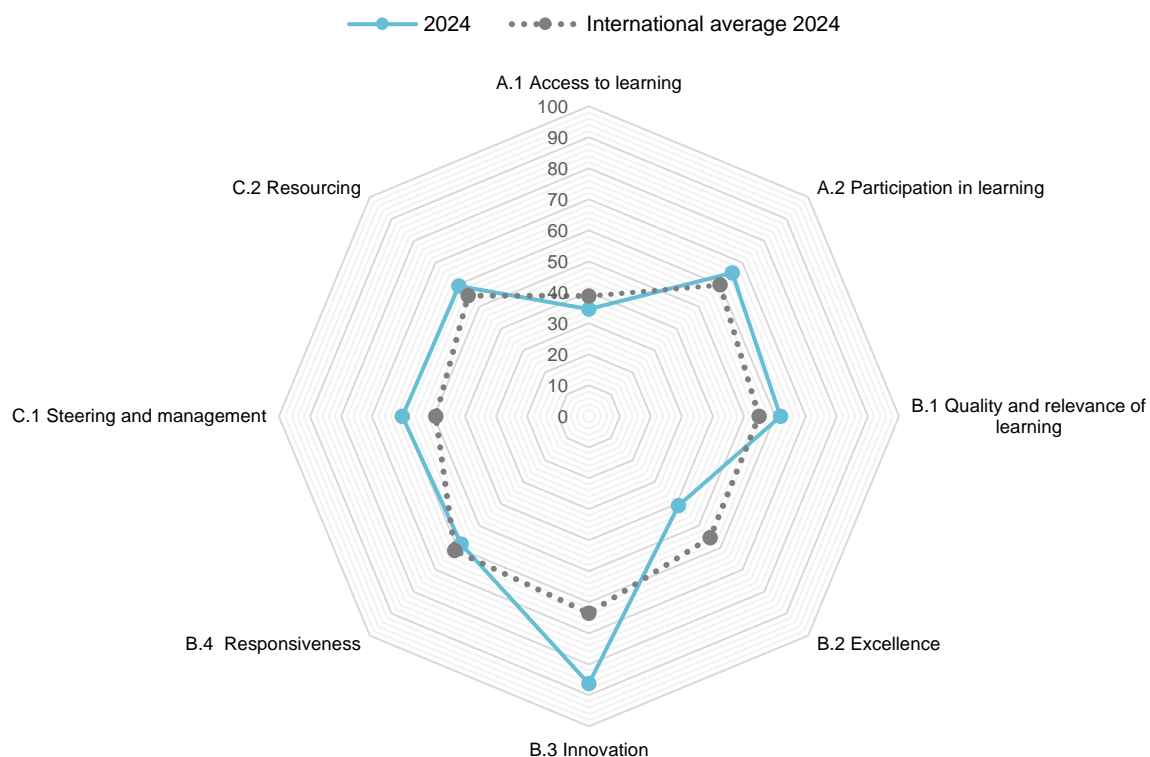
The most substantial change was observed in Resourcing, where the SPI dropped by -8.56 points, a decline primarily attributed to national-level developments. In the dimension of Steering and management, system performance also weakened, with a decrease of -4.70 SPI points, largely due to improvements in the average performance of other countries participating in the Torino Process.

In System responsiveness, the change relative to the international average was more modest, at -0.72 SPI points, and was mostly the result of negative shifts within Kazakhstan's system performance. Both Access to learning and Quality and relevance of learning saw declines, with SPI decreases of -4.68 and -3.58 points, respectively. While the decline in Access to learning was shaped predominantly by international developments, the negative change in Quality and relevance of learning reflected a combination of national and international factors. Conversely, Innovation demonstrated a positive change of +2.00 SPI points, to a large extent due to a decline in the international average.

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 2b. INDEX OF SYSTEM PERFORMANCE BY MONITORING DIMENSION, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2024)



Theoretical⁵ 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).

⁵ 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.

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 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 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 as follows:

TABLE 3. 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 |

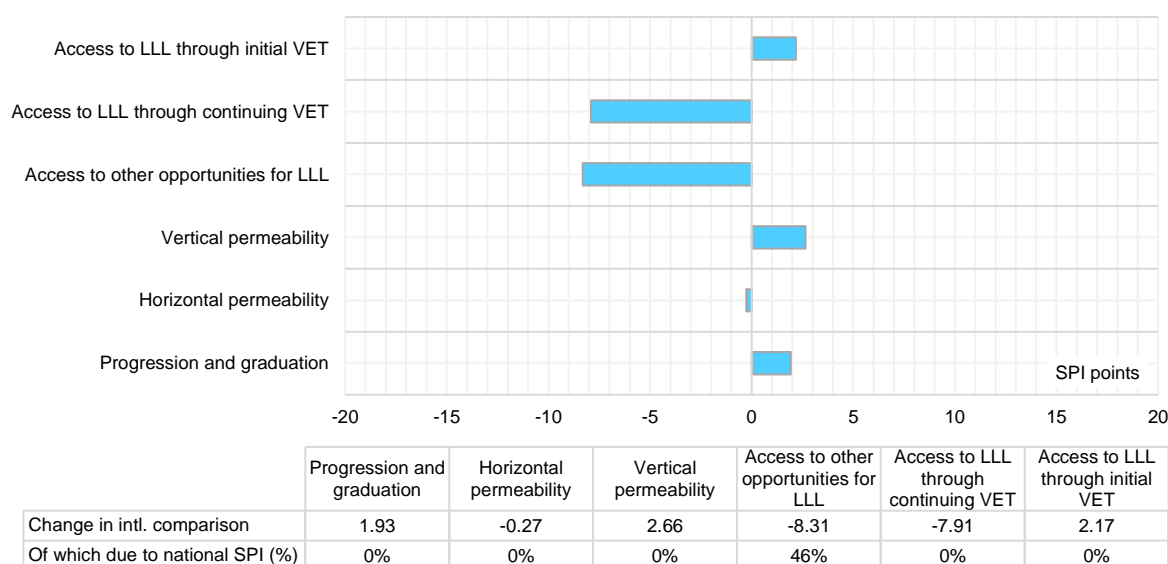
Figure 3a provides an overview of how the relative performance of VET in Kazakhstan has evolved since 2023 in comparison to the international average in delivering access and participation to learners.

The data indicate a decline in Kazakhstan’s relative performance in two domains tracking opportunities for adult education: Access to CVET and Access to other opportunities for lifelong

learning. The decline in access to lifelong learning reflects both negative shifts in national system performance and the fact that, on average, other countries in the Torino Process sample have made advancements in this area since 2023. By contrast, the decline in performance in support of access to CVET was entirely driven by positive developments in the international context.

Conversely, Kazakhstan’s results have improved in international comparison in domains monitoring first-time access to IVET, vertical permeability to higher levels of education, and support for progression and graduation. However, as there has been no national improvement in these areas, the data suggest that ETF countries, on average, may be encountering greater challenges than in 2023 in maintaining the capacity of their education and training systems to ensure access, facilitate upward mobility, and support learners in completing their programmes.

FIGURE 3a. ACCESS AND PARTICIPATION - CHANGE IN SYSTEM PERFORMANCE, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2023-2024)



Source: ETF Torino Process database

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 ensuring access to lifelong learning opportunities for adults beyond VET is particularly low (Outcome A.1.3) and – as suggested also in Figure 3a - it declined by 4 SPI points between 2023 and 2024.

This decline is closely linked to the 2024 updates in the KIESE SPI Indicator 19, which measures the percentage of individuals whose tuition or study costs are supported by employers.⁶ According to

⁶ The full list of KIESE indicators and the selection of indicators used as proxies in constructing the Torino Process SPIs can be found at <https://bit.ly/4exAkFO>.

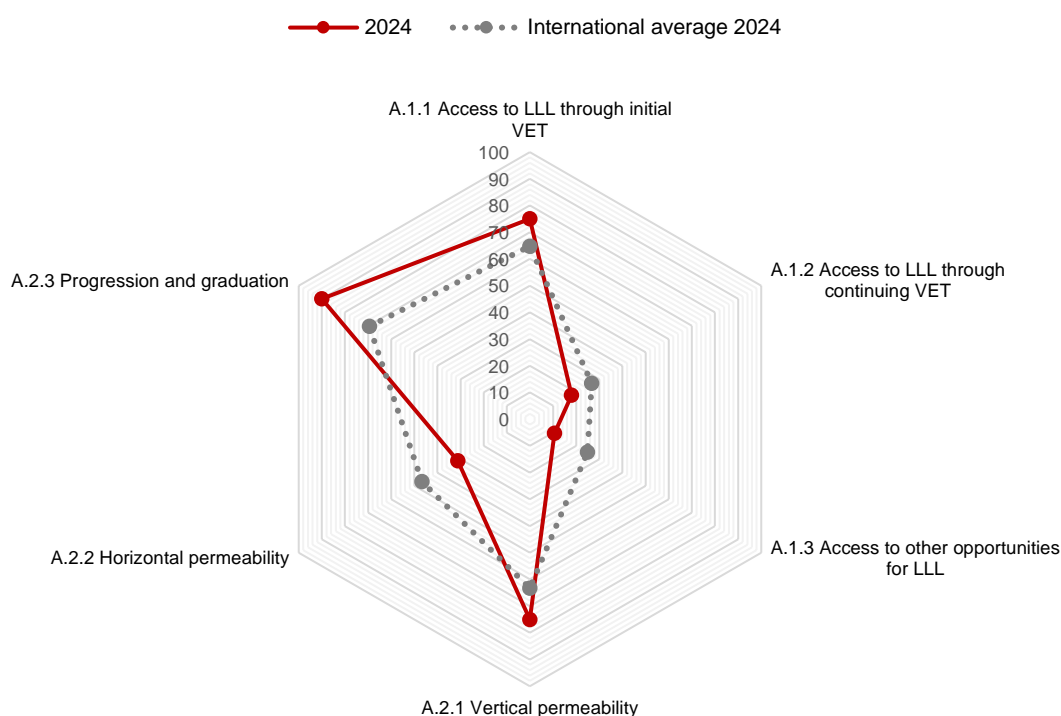
the data used in the 2024 monitoring update, the share of individuals benefiting from employer-driven financial support fell from 23% to 18%. Since the indicator reflects the level of employer investment in workforce upskilling, its decline suggests reduced incentives or budgets for employee education. Such trends may have broader implications for lifelong learning, particularly for male and female adult learners, as fewer adults have access to employer-sponsored education and training opportunities.

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 3b. ACCESS AND PARTICIPATION IN OPPORTUNITIES FOR LLL: INDEX OF SYSTEM PERFORMANCE, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2024)



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, namely 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 4.

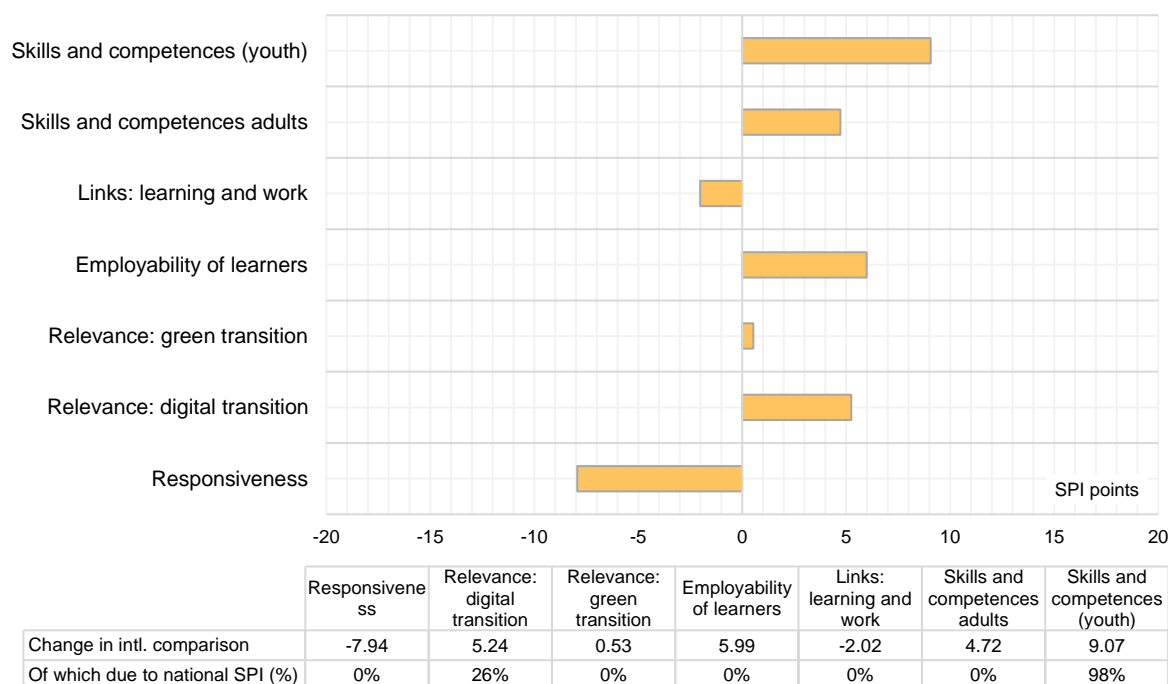
TABLE 4. POLICY AND SYSTEM OUTCOMES INCLUDED UNDER MONITORING AREA B (1): QUALITY AND RELEVANCE

| 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 |

Figure 4a provides an overview of how the relative performance of VET in Kazakhstan has evolved since 2023 compared to the international average in delivering quality and relevance to learners. The data suggest that the international performance context in this area has experienced shifts across the full range of outcomes it encompasses. By comparison, Kazakhstan’s results have remained stable between 2023 and 2024 in all domains, with the exception of system performance in support of learning quality for youth and the adaptation of VET to digital transition developments.

FIGURE 4A. QUALITY AND RELEVANCE - CHANGE IN SYSTEM PERFORMANCE, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2023-2024)



Source: Torino Process database

The data indicate that maintaining standards of quality in adult skills and competences, as well as employment outcomes for learners, has become a greater challenge on average for ETF partner countries than for Kazakhstan. In contrast, Kazakhstan has seen a substantial improvement of 9 SPI points in this domain between 2023 and 2024, with 98% of the change attributed to progress in national performance. In the domain of the digital transition, the relative performance of Kazakhstan has improved as well, by 5.24 SPI points in international comparison. However, this positive result is primarily due to larger declines in the international average rather than positive developments within Kazakhstan itself, as will be discussed later in this section.

However, in areas beyond foundational skills, other countries are demonstrating greater agility in adapting their education systems to evolving needs, as reflected in Kazakhstan's lower relative score in this monitoring domain (responsiveness) since 2023. Additionally, in 2024, the alignment between education and labour market needs (employability of learners) appears to have strengthened more significantly elsewhere than in Kazakhstan.

The 2024 update of system performance data for Kazakhstan shows that, unlike in 2023 when the quality of foundational skills and competences delivered through the IVET system was average (Outcome b.1.1, SPI of 52), in 2024 system performance in this domain has improved to an SPI of 61 (Figure 4b). As in 2023, this result puts Kazakhstan ahead of other countries in the Torino Process monitoring sample.

The main driver of the improved performance is the decline in the proportion of 15-year-olds performing at Level 1 or below on the PISA scale in mathematics, literacy and science since the last round of Torino Process monitoring (KIESE SPI Indicators 30, 31, and 32). Between 2023 and 2024, the proportion of students who underachieve in reading declined from 67% to 63%, in mathematics from 53% to 49%, and in science from 63% to 45%.

Kazakhstan also 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 ТiПO (vocational education) graduates, underlining the effectiveness of the colleges. In 2019, some 140,698 specialists graduated from the ТiПO 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.

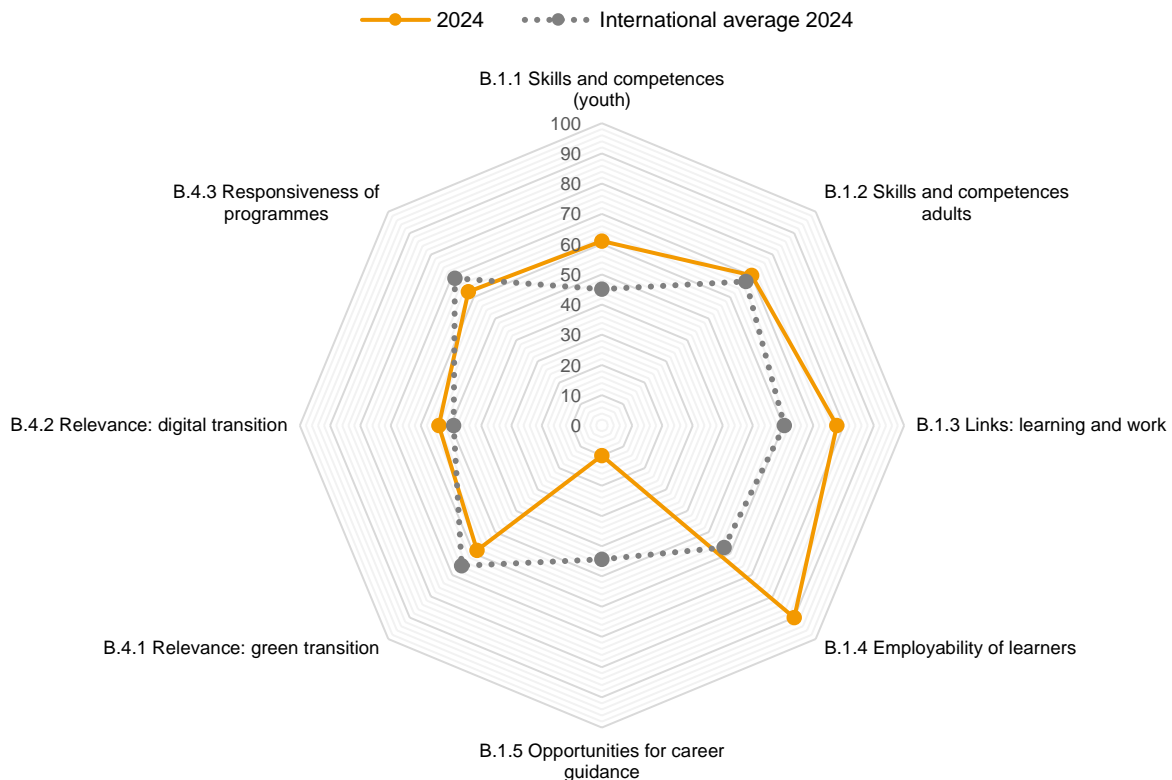
Despite these successes, challenges remain in the foundational education of students, as indicated by the most recent round of results from the Programme for International Student Assessment (PISA) of the OECD. In 2022, students in Kazakhstan scored below the OECD average in all three domains tested 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 the preparation of students for the requirements of their future 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 VET institutions' training workshops, laboratories, and training centres, or at enterprise production sites.

FIGURE 4b. QUALITY AND RELEVANCE OF LLL: INDEX OF SYSTEM PERFORMANCE, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2024)



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 which remained unchanged since the last round of monitoring (Outcome B.4.2). However, performance in support of the digital transition declined, with the SPI for Outcome B.4.1 dropping from 57 in 2023 to 54 in 2024.

This decline reflects mixed outcomes in two of the KIESE indicators used to calculate the SPI for Outcome B.4.2: availability of computers for educational purposes (KIESE SPI Indicator 88) and proportion of youth and adults with ICT skills (KIESE SPI Indicator 90). The availability of computers metric worsened, with the computer-student ratio increasing from 86 to 106 during the reporting period, indicating fewer computers available for students in the modal grade. This negative development was reinforced by a slight decline in the proportion of youth and adults with ICT skills, which fell from 25% to 24%. These combined trends suggest that challenges remain both in the provision of infrastructure and in developing ICT skills across the population.

According to official information provided in 2023, 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 ТiПO 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 5.

TABLE 5. 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 |

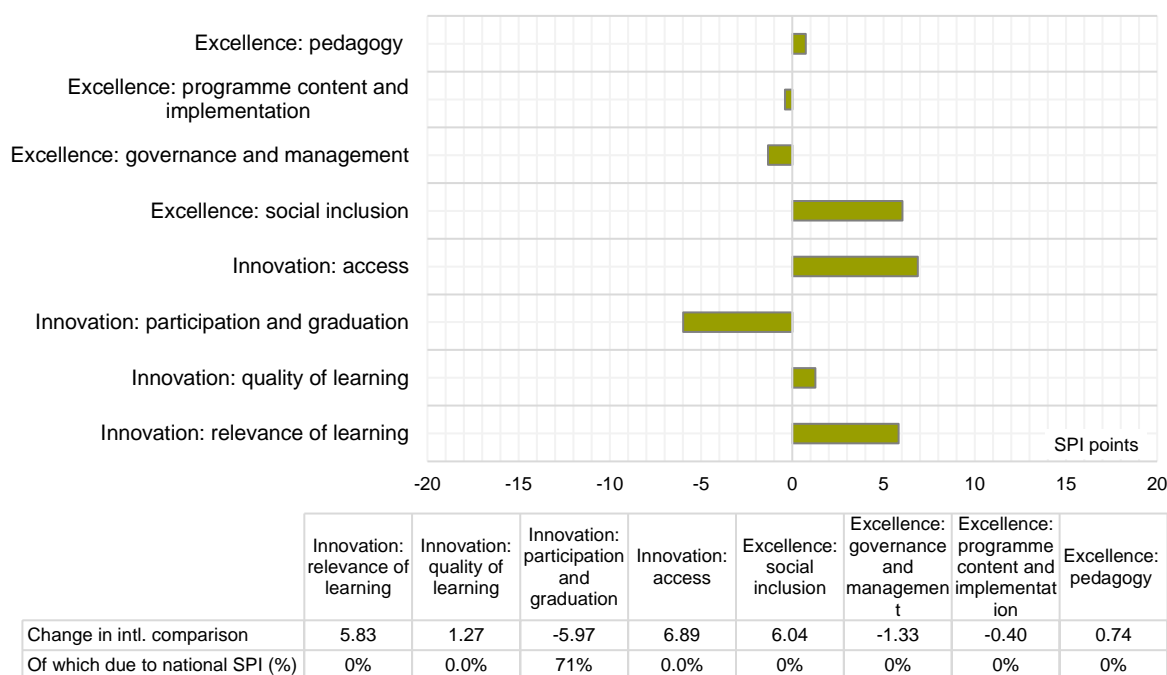
The Torino Process defines excellence as the presence of system-wide policies and measures that promote the highest quality practices and results across key domains of policy and provision of programmes and services in VET. These domains include pedagogy and professional development, programme content and implementation, governance and provider management, and social inclusion and equity. Innovation, by contrast, reflects the adaptability, creativity, and forward-thinking approach of the VET system in addressing evolving labour market and learner needs.

Figure 5a presents a comparative overview of how the performance of VET in Kazakhstan has evolved between 2023 and 2024 in relation to the average of other countries in the Torino Process in these domains. It shows that the results for Kazakhstan in delivering excellence and innovation have improved in international comparison since 2023.

The most notable shifts in this respect concern innovation in support of access and relevance of learning, with increases of 6.89 and 5.83 SPI points respectively. Both changes are due to a decline in average performance internationally and not due to changes in national performance. Decline in the international average has also boosted the relative standing of Kazakhstan in the domain of innovation in support of quality, albeit to a much lesser extent. In contrast, innovation in support of participation and graduation declined by -5.97 SPI points – a decline driven primarily by negative changes between 2023 and 2024 in the degree to which the VET system provides support to learners in that area.

Changes can also be observed in all domains related to excellence, but the shifts here are entirely due to developments in the international context and not due to specific improvements or setbacks in the VET system of Kazakhstan. The biggest shift in the excellence domains is in excellence in support of social inclusion, where the average performance of ETF partner countries has dropped between 2023 and 2024. While the average may mask the results of individual countries that have improved during this period, the decline suggests that other countries are facing significant enough challenge in maintaining or advancing high-quality, inclusive practices in their VET systems.

FIGURE 5a. EXCELLENCE AND INNOVATION - CHANGE IN SYSTEM PERFORMANCE, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2023-2024)



Source: ETF Torino Process database

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, Figure 5b) 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.

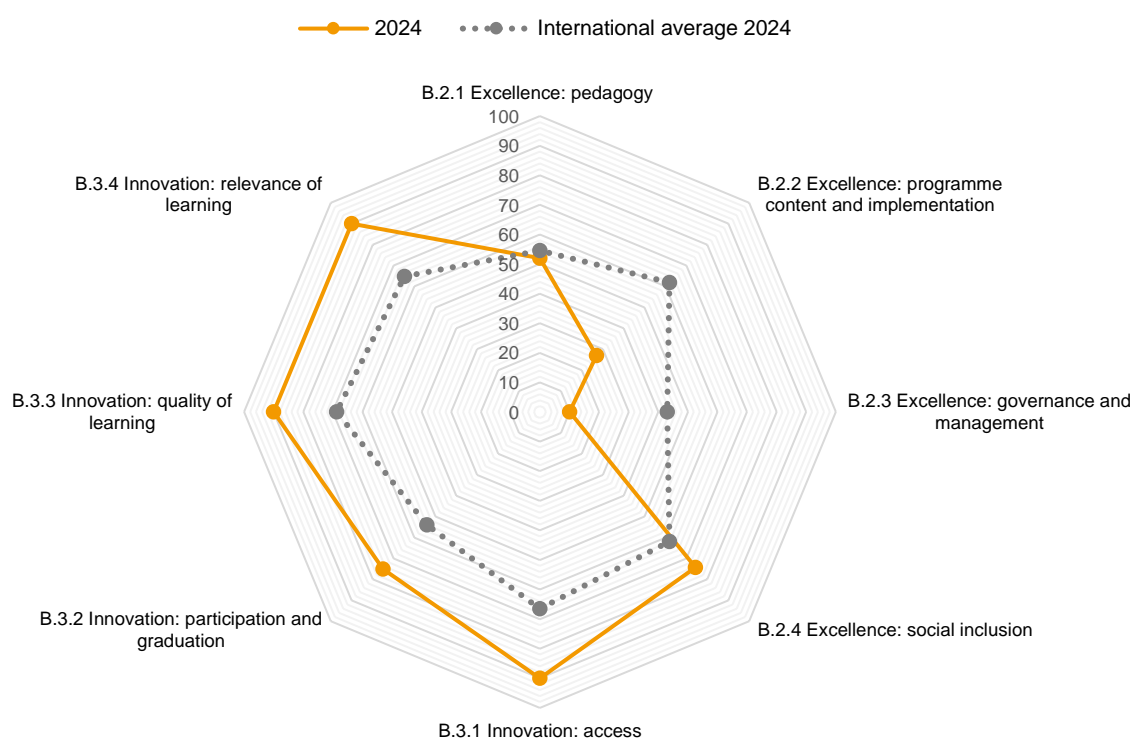
To address these challenges, the national project ‘Quality education – Educated nation’ has been approved, with Target 4 set as a priority: providing affordable and high-quality vocational training and education. After graduating from a VET institution, learners may continue their studies at the university 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.

FIGURE 5b. EXCELLENCE AND INNOVATION: INDEX OF SYSTEM PERFORMANCE, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2024)



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

Source: Torino Process monitoring database

As to innovation, 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.

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.

These actions contribute to a robust performance of VET in Kazakhstan in the domain of innovation in support of participation and graduation. In 2024, just like in 2023, the country outperforms the international average in this domain by a sizeable margin (Outcome B.3.2, SPI of 75 against an international average of 54). However, the 2024 update suggests that national performance in this area is declining – in 2023, the SPI result for Outcome B.3.2 was 85.

The result for Outcome B.3.2 is calculated using three KIESE SPI indicators, all of which derived from the OECD PISA database: the proportion of schools providing dedicated rooms for students to do homework (KIESE SPI Indicator 76), the proportion offering staff assistance with homework (Indicator 77), and the availability of peer-to-peer tutoring services (Indicator 78). While school support through staff assistance for homework increased slightly, from 90% in the 2023 Torino Process reporting round to 91% in the 2024 update, the other two indicators worsened. The proportion of schools providing dedicated rooms for homework dropped from 53% to 51%, and the availability of peer-to-peer tutoring services fell even more significantly, from 90% to 80%. Although personalised academic support remains a priority in Kazakhstan, it is the decline in collaborative and infrastructural support that led to an overall decrease in performance as measures by the Torino Process SPIs.

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 6.

TABLE 6. 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 |

The data reveal that system organisation is the domain with the highest number of areas where Kazakhstan's performance has changed since 2023. Unfortunately, most of these changes are negative. The largest declines are observed in "Material base," "Funding," and "Human resources," where results have worsened significantly compared to 2023, perhaps due to growing challenges in providing the necessary infrastructure, financial resources, and professional capacity to support the effective operation of the VET system.

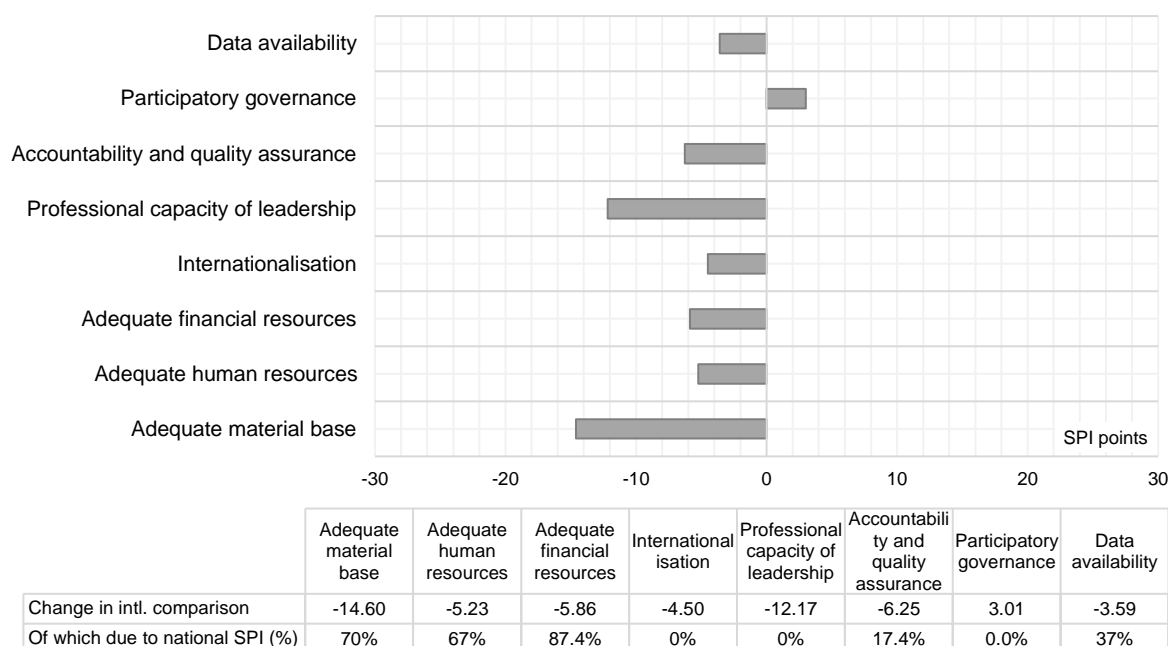
Other areas show a more moderate decline. In 'Data availability,' the results appear weaker due to slower progress in Kazakhstan compared to the average improvements achieved by other countries, as will be discussed later in this section, with a relative drop of 3.59 points since 2023. The data

suggests that Kazakhstan has struggled to improve its capacity to provide internationally comparable data at the same pace as other countries.

Not all changes are negative, however. In "Participatory governance," Kazakhstan's relative standing has improved by 3.01 points since 2023 in international comparison. This improvement, however, is not the result of national progress but rather reflects declines in the performance of other countries in the Torino Process sample.

The reasons behind each change reflect national progress in some areas and challenges in meeting international benchmarks in others. In the largest areas of decline – "Material base," "Funding," and "Human resources" – the results are primarily driven by worsening national performance, as will be discussed later. By contrast, in "Professional capacity of leadership," where the largest relative decline (-12.17 points) can be observed, the change is entirely due to improvements in the international average, while there is no internationally comparable evidence of progress in the national performance of Kazakhstan. Similarly, the improvement in "Participatory governance" is fully explained by shifts in the international context rather than changes at the national level.

FIGURE 6a. SYSTEM MANAGEMENT AND ORGANISATION - CHANGE IN SYSTEM PERFORMANCE, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2023-2024)



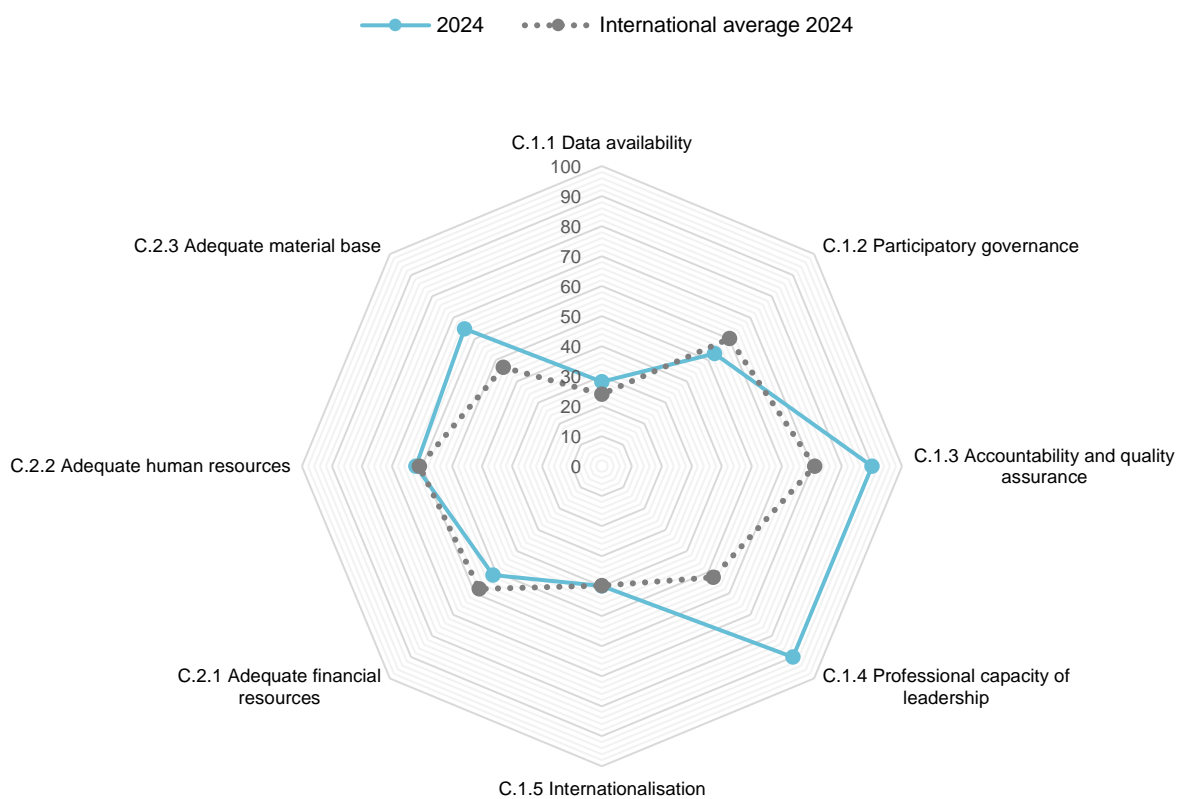
Source: ETF Torino Process database

VET in Kazakhstan is reported to have above-average performance in the domain of quality assurance and public accountability (Outcome C.1.3), somewhat stronger in 2024 than in 2023. 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.

Although the standing of Kazakhstan in this area remains high in international comparison, and although the evidence collected for 2024 shows that there has been an improvement in many areas, overall progress since the last round of reporting has been uneven. There have been multiple changes in the values of the KIESE indicators used for the calculation of the system performance index for Outcome 1.3 (most based on OECD PISA), which likely reflects gradual shifts in school accountability and quality assurance practices. For instance, the proportion of schools publicly posting achievement data decreased from 66% in 2023 to 50% in 2024 (KIESE SPI Indicator 101), which suggests reduced transparency or changing priorities in public reporting, which may in turn impact stakeholder trust. In contrast, tracking achievement data over time saw a slight increase from 96% to 97% (Indicator 102), highlighting sustained focus on longitudinal data collection for evidence-based decision-making. Direct communication of achievement data to parents slightly declined from 94% in 2023 to 93% in 2024 (Indicator 103), potentially indicating minor administrative challenges.

Similarly, there were changes in the internal and external quality assurance processes. The proportion of schools conducting mandatory internal evaluations decreased from 99% to 98% (Indicator 104), while external evaluations dropped from 97% to 95% (Indicator 105), reflecting possible resource constraints or shifts in policy. The systematic recording of attendance and professional development data increased from 97% to 99% (Indicator 108), which is indicative of improved data management practices. However, systematic recording of test results and graduation rates declined marginally from 99% to 98% (Indicator 109).

FIGURE 6b. SYSTEM MANAGEMENT AND ORGANISATION: INDEX OF SYSTEM PERFORMANCE, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2024)



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

Source: Torino Process monitoring database

Encouragingly, regular consultations aimed at school improvement rose significantly, from 77% in 2023 to 84% in 2024 (Indicator 112), indicating increased focus on collaborative efforts for continuous development. On the other hand, the implementation of standardized policies for reading subjects decreased from 94% to 88% (Indicator 113), reflecting possible shifts in curriculum standardization, which could influence the quality of instruction.

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.

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), but by a very small margin compared to 2023, mostly as a result of a decline in national performance. The updated KIESE SPI indicators which drive the calculation of indices under Outcome C.2.2 suggest that in this round of monitoring, there are significant challenges with staffing and the qualifications of teachers. The index of staff shortages as measured by OECD's PISA nearly doubled, increasing from 15% in 2023 to 27% in 2024 (KIESE SPI Indicator 126). This sharp rise indicates that there are growing concerns about both the availability and qualifications of school staff. Compounding this issue, the proportion of fully certified teachers dropped from 74% to 52% (Indicator 127), raising alarms about potential gaps in teacher training, certification, or retention.

However, concerns about teaching staff availability grew, as schools reporting a lack of teaching staff increased from 1% to 2% (Indicator 121). This signals emerging challenges in teacher recruitment and retention, which could affect instructional quality.

The availability of financial resources, on the other hand, is an area of weaker results (Outcome C.2.1), both in international comparison and compared to the preceding year of Torino Process reporting. 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.

Although in 2023 Kazakhstan reported that funds from private sources are primarily invested in private education institutions, the data collected in 2024 suggests that the difference in government funding between public and private schools decreased from 60% in 2023 to 53% in 2024 (Indicator 119). This reduction suggests improved equity in funding distribution, potentially reflecting policy efforts to balance resource allocation.

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 continues to be relatively high, both against the international average and other monitoring domains (Outcome C.2.3). In 2024, there were less reported shortages of educational materials and infrastructure. The percentage of schools the principals of which reported a lack of educational material decreased from 44% in 2023 to 34% in 2024 (Indicator 132), while reports of poor-quality educational material fell from 37% to 34% (Indicator 133). These improvements suggest that there are examples of effective resource allocation and policy measures addressing material shortages.

Similarly, the percentage of schools identifying inadequate physical infrastructure as a hindrance to instruction decreased from 38% in 2023 to 36% in 2024 (Indicator 134). Reports of poor-quality infrastructure also declined from 39% to 35% (Indicator 135), reflecting progress in addressing long-standing infrastructure challenges. These trends indicate positive developments in the physical and material resources available to schools, contributing to an improved learning environment. They also suggest 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 did policies and systems benefit specific groups of learners?

In this 2024 update, the Torino Process monitoring continues to track not only 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.

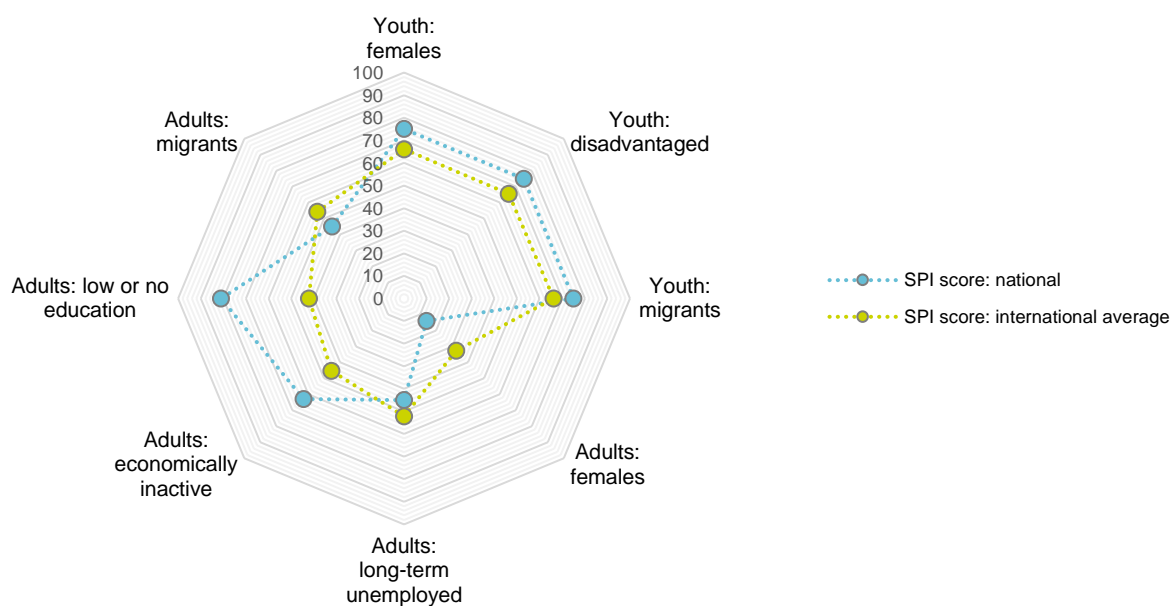
The next sections provide an overview of how the IVET and CVET subsystems in Kazakhstan perform in a key selection of monitoring dimensions – access and participation, and quality and relevance – for the following key selection of learner groups: youth and adults, female learners, socioeconomically disadvantaged youth, adults at risk of exclusion, and first-generation migrants.

2.3.1 Access and participation

Overall results

The data presented in Figure 7 shows an overview of system performance in 2024 in support of access to opportunities for learning for various vulnerable populations in Kazakhstan and internationally. The figure suggests that access to learning for young learners of strategic interest (female learners, socioeconomically disadvantaged youth, and first-generation migrants) is an area of stable results, with an SPI of 75 in 2024 for all groups. This score is higher than the performance in support of young learners on average. Internationally, system performance in support of access to educational opportunities for young learners at risk, including female learners, is lower than in Kazakhstan.

FIGURE 7. SYSTEM PERFORMANCE IN SUPPORT OF ACCESS FOR SPECIFIC GROUPS OF LEARNERS, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2024)



Theoretical index range: min/low performance=0, max/high performance=100
 Source: Torino Process monitoring database

For adult learners who are at risk, the data in Figure 7 reveals a more nuanced picture. The SPI scores vary significantly among the different groups, which is indicative of gaps in system performance in support of access that may depend on gender and on the educational or socioeconomic background of adult learners. Access to learning for adult females is an area of particularly low results, with an SPI of 14, far below the international average of 32.63. In contrast, the policy and system arrangements in place are much better at delivering learning opportunities to adults who at risk due to long-term unemployment and economic inactivity. System performance in that respect for economically inactive adults is 63, significantly higher than the international average SPI of 45. Similarly, performance in support of adults with a migrant background is with an SPI of 45, slightly below the international average of 54. National authorities also report strong performance in support of economically inactive adults in this domain of monitoring.

Table 7 shows the evolution of monitoring results between 2023 and 2024 for Kazakhstan and for the international average, by broad age group (youth and adults), by gender, and by socioeconomic background of learners.

The data suggests a decline in the international benchmark of system performance regarding access across all groups of youth learners. The most concerning result in the domain of access to learning, however, lies in the national data for Kazakhstan and concerns adult females, who appear to be at particular disadvantage in terms of opportunities for learning due to the lack of evidenced progress in system performance in that area. This is in strong contrast with the overall increase in performance between 2023 and 2024 in support of access for adults across the board of countries participating in the Torino Process.

TABLE 7. ACCESS - CHANGE IN SYSTEM PERFORMANCE, SPECIFIC GROUPS OF LEARNERS, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2023 – 2024)

| Population of learners | SPI score: national | Change from 2023 to 2024: national | SPI score: international average | Change from 2023 to 2024: international average |
|-------------------------------|---------------------|------------------------------------|----------------------------------|---|
| Youth: females | 75 | 0 | 66 | -1.04 |
| Youth: disadvantaged | 75 | 0 | 66 | -0.29 |
| Youth: migrants | 75 | 0 | 66 | -0.91 |
| Youth: average | 75 | 0 | 65 | -2.17 |
| Adults: females | 14 | 0 | 33 | 0.73 |
| Adults: long-term unemployed | 45 | 0 | 52 | 0.15 |
| Adults: economically inactive | 63 | 0 | 45 | 2.00 |
| Adults: low or no education | 81 | 0 | 42 | 4.91 |
| Adults: migrants | 45 | 0 | 54 | 1.00 |
| Adults: average | 14 | 0 | 26 | 6.19 |

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

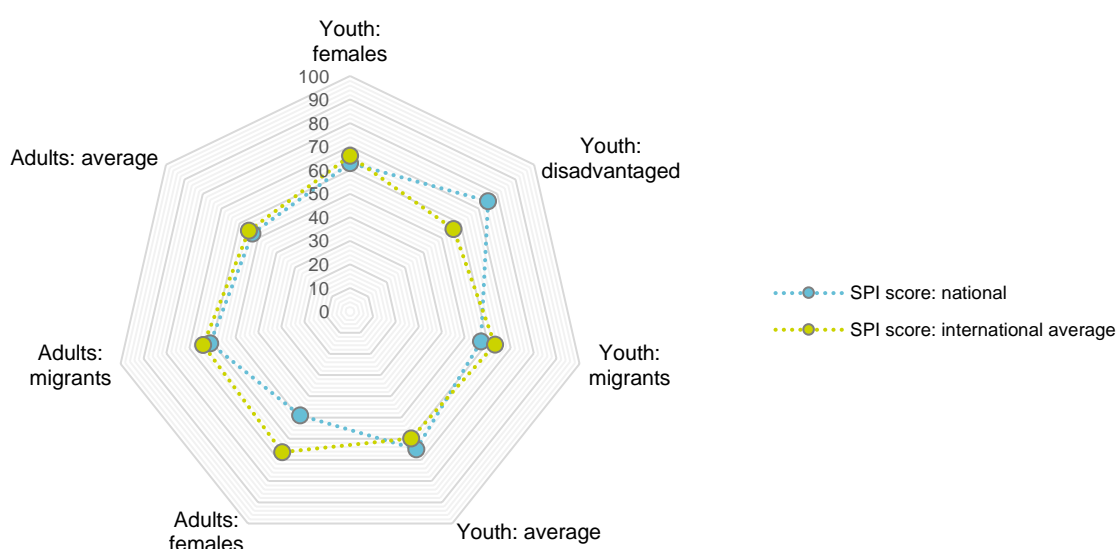
Source: Torino Process monitoring database

Several of the SPIs in the Torino Process monitoring framework are dedicated to assessing the effectiveness of policies and systems in fostering the progression and graduation of learners. Once enrolled, are learners—particularly those at risk—given the support they need to move forward and achieve their educational goals?

The data on VET system performance in support of progression and graduation in Kazakhstan provides a mixed picture across learner groups (Figure 8), and the presence of disparities based on gender and country of origin. For youth, system performance is strongest for socioeconomically disadvantaged learners, with an SPI of 75, well above the national average of 65. Performance in support of female learners is slightly below the national average (SPI of 63), but still higher than for learners with a migrant background (SPI of 57).

For adults, system performance is relatively even across groups, though the scores for adults are generally lower than for youth. The SPI for adults with a migrant background is 61, while for female adults, it is 49, the lowest among all groups of adult learners. In 2023 and 2024, performance for adults on average was with an SPI of 53. Kazakhstan's performance in this domain is weaker for most groups of adult learners in international comparison, with a particularly large gap for adult females.

FIGURE 8. SYSTEM PERFORMANCE IN SUPPORT OF PARTICIPATION OF SPECIFIC GROUPS OF LEARNERS, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2024)



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

Source: Torino Process monitoring database

Table 8 shows the evolution of monitoring results between 2023 and 2024 for Kazakhstan and for other countries in the Torino Process on average, by broad age group and specific learner characteristics. The data indicates no change in Kazakhstan’s SPI scores across all groups, while the international average has shown some variability across all domains of monitoring.

TABLE 8. PARTICIPATION - CHANGE IN SYSTEM PERFORMANCE, SPECIFIC GROUPS OF LEARNERS, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2023 – 2024)

| Population of learners | SPI score: national | Change from 2023 to 2024: national | SPI score: international average | Change from 2023 to 2024: international average |
|------------------------|---------------------|------------------------------------|----------------------------------|---|
| Youth: females | 63 | 0 | 66 | 1.24 |
| Youth: disadvantaged | 75 | 0 | 56 | 0.84 |
| Youth: migrants | 57 | 0 | 63 | 0.89 |
| Youth: average | 65 | 0 | 60 | -1.44 |
| Adults: females | 49 | 0 | 66 | 0.39 |
| Adults: migrants | 61 | 0 | 64 | -0.35 |
| Adults: average | 53 | 0 | 55 | -1.19 |

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

Source: Torino Process monitoring database

For youth, policies and systems in other countries participating in the Torino Process have become slightly more effective in supporting socioeconomically disadvantaged youth (+0.84 SPI points) and learners with a migrant background (+0.89 SPI points) between 2023 and 2024. While these are small increases, they indicate that other ETF partner countries are advancing with their inclusiveness agenda. However, the absence of documented improvements in Kazakhstan does not necessarily mean there has been no advancement. It may also reflect that any changes in the country have not been recorded in ways that align with international standards for assessing and comparing policy developments – a point of relevance when discussing system performance in the domain of evidence and data (see Section 2.2.4).

For adults, the international average shows uneven progress among Torino Process countries across different groups of adult learners. The SPI for adult females increased by 0.39 points, which indicates modest improvements in how some countries are supporting female adults' participation and progression in education and training. In contrast, there is a slight decline of 0.35 points for adults with a migrant background which suggests that, on average, countries are facing more challenges in meeting the needs of this group.

The decrease of 1.19 points in the international average for adults, points to broader difficulties in supporting adult learners in other countries. This suggests challenges in retaining adult participants in education and training - some VET and adult education systems may be struggling to maintain engagement. While performance in Kazakhstan in support of adults remains stable, the overall decline in the international average SPI suggests that some countries are encountering increasing difficulties.

Female learners

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, 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.

Once enrolled in a training programme, female learners, both young and adult, benefit from an environment that supports their engagement and progression, 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.

Disadvantaged learners: youth

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. 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 families with multiple children, 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.

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.

Learners at risk: adults

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, 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.

Learners by country of origin

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 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 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.

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.

2.3.2 Quality and relevance

Overall results

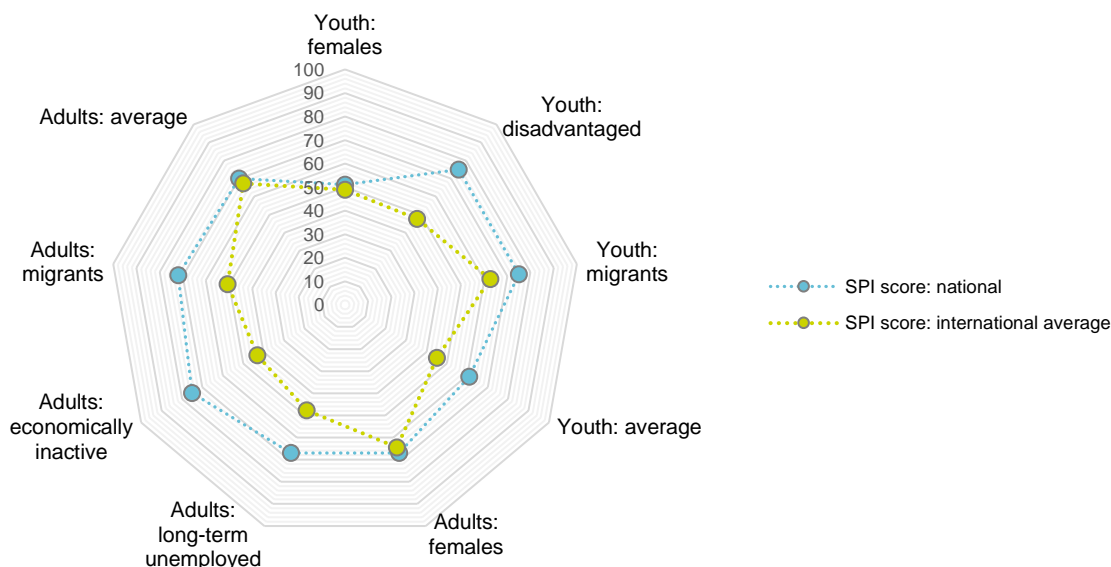
The success of VET in Kazakhstan in delivering foundational skills and competences varies across learner groups, reflecting, to a large extent, their socio-economic background. For some learners, such as youth, system performance exceeds the average of other countries participating in the Torino Process; for others, particularly adults, it falls well behind (Figure 9).

System performance is above the international average for all young learners in the categories covered in this section. The quality of skills and competences provided to female and migrant youth in VET (SPIs of 51 and 75, respectively) is somewhat higher than the international averages of 48.9 and 62.7, and much higher for disadvantaged youth in VET in international comparison.

For adults, policies and systems in Kazakhstan provide effective support for developing skills and competences across most groups, with notable strengths in some areas. Female adults benefit from relatively robust system performance, with a national SPI of 67, closely aligned with the international average of 64.4. Support for long-term unemployed adults is particularly effective, reflected in an SPI of 67, significantly above the international average of 47.7. Economically inactive adults benefit from the highest level of system support among adult groups, with an SPI of 75 compared to the international average of 43. Similarly, adults with a migrant background are well-supported, achieving an SPI of 72, substantially exceeding the international average of 50.7. These results suggest that Kazakhstan's VET system performs well for most adult groups, although gaps in support persist in certain contexts.

Adults overall have a national SPI of 70, which is above the international average of 67.28. This suggests that while the VET system in Kazakhstan performs relatively well for the wider adult population, there is still room to ensure more uniform support in delivering high-quality skills and competences across all adult groups.

FIGURE 9. SYSTEM PERFORMANCE IN SUPPORT OF QUALITY AND RELEVANCE FOR SPECIFIC GROUPS OF LEARNERS, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2024)



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

Source: Torino Process monitoring database

The analysis of changes from 2023 to 2024 reveals a shifting international landscape that reframes the interpretation of Kazakhstan’s national performance relative to other countries (Table 9), even though Kazakhstan’s SPI scores have remained static across all groups during this period.

For youth, the results of Kazakhstan in delivering skills and competences for females (national SPI of 51 vs. international average of 48.9, with a -6.54-point decline internationally) now appears stronger in relative terms due to the drop in the average performance of other countries in the Torino Process sample. For youth with a migrant background (national SPI of 75 vs. international average of 62.7, with a 2.29-point increase internationally), Kazakhstan remains well above the international average, although the relative advantage has slightly narrowed due to the improvement in the international context. Relative performance for disadvantaged youth has also improved, again due to a decline in average performance internationally.

TABLE 9. QUALITY AND RELEVANCE - CHANGE IN SYSTEM PERFORMANCE, SPECIFIC GROUPS OF LEARNERS, KAZAKHSTAN AND INTERNATIONAL AVERAGE (2023 – 2024)

| Population of learners | SPI score: national | Change from 2023 to 2024: national | SPI score: international average | Change from 2023 to 2024: international average |
|------------------------|---------------------|------------------------------------|----------------------------------|---|
| Youth: females | 51 | 0 | 49 | -6.54 |
| Youth: disadvantaged | 75 | 0 | 48 | -1.24 |
| Youth: migrants | 75 | 0 | 63 | 2.29 |
| Youth: average | 61 | 0 | 45 | 0.15 |

| | | | | |
|----------------------------------|-----------|----------|-----------|--------------|
| Adults: females | 67 | 0 | 64 | -1.37 |
| Adults: long-term unemployed | 67 | 0 | 48 | 1.94 |
| Adults: economically inactive | 75 | 0 | 43 | 0.40 |
| Adults: migrants | 72 | 0 | 51 | -0.78 |
| Adults: average | 70 | 0 | 67 | -4.72 |

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

Source: Torino Process monitoring database

For adults, the international context reveals greater variation. Performance in delivering skills and competences to female adults (national SPI of 67 vs. international average of 64.43, with a -1.37-point decline internationally) now appears stronger in international comparison. The same is true for the results in support of quality for long-term unemployed adults (national SPI of 67 vs. international average of 47.68, with a 1.94-point increase internationally), which continues to be relative strong compared to the average of other countries in the Torino Process. There is a sizeable gap in performance in favour of VET in Kazakhstan when it comes to economically inactive adults (national SPI of 75 vs. international average of 43, with a 0.40-point increase internationally), despite the incremental progress observed in other countries.

Female learners

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.

Disadvantaged learners: youth

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, 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.

Learners at risk: adults

The learning opportunities at the disposal of this group of prospective learners are reported to provide better than average quality of skills. 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 families and/or families with multiple children, 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.

Learners by country of origin

The monitoring results suggest that the quality and relevance of learning for students with a migrant background 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.

3. SUPPLEMENTARY SOURCES AND INFORMATION

3.1 Links to background information and data

The full collection of quantitative indicators collected for Kazakhstan for this 2024 round of monitoring can be found here:

https://docs.google.com/spreadsheets/d/1w6MWU_6oZzY80JGby7IHWOmVCiUp7NTu/edit?usp=sharing&oid=110154518834912853011&rtpof=true&sd=true

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

https://docs.google.com/document/d/1cwNco_yQ5pU9dXQnZrParJrfuCdZ9Bdv/edit?usp=sharing&oid=110154518834912853011&rtpof=true&sd=true

General information for the Torino Process as well as the reports and data of other participating countries, can be found here: <https://www.etf.europa.eu/en/what-we-do/torino-process-policy-analysis-and-progress-monitoring>.⁷

3.2 Definitions, terminological clarifications, methodological limitations

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.
- **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.

⁷ The Torino Process monitoring reports and data will be released gradually in the period January-February 2024 in the order in which countries submit their evidence and the reports are being finalised with them.