



# POLICIES FOR HUMAN CAPITAL DEVELOPMENT KAZAKHSTAN

AN ETF **TORINO PROCESS**  
ASSESSMENT

## EXECUTIVE SUMMARY



# PREAMBLE

The European Training Foundation (ETF) assessment provides an external, forward-looking analysis of the country's human capital development issues and VET policy responses in a lifelong learning perspective. It identifies challenges related to education and training policy and practice that hinder the development and use of human capital. It takes stock of these challenges and puts forward recommendations on possible solutions to address them.

These assessments are a key deliverable of the Torino Process, an initiative launched by the ETF in 2010 aimed at providing a periodic review of vocational education and training (VET) systems in the wider context of human capital development and inclusive economic growth. In providing a high-quality assessment of VET policy from a lifelong learning perspective, the process builds on four key principles: ownership, participation, holistic and evidence-based analysis.

Human capital, in this context, is understood as knowledge, skills, talents and abilities that further people's economic, social and personal development. The purpose of the assessments is to provide a reliable source of information for planning and monitoring national education and training policies for human capital development, as well as for programming and policy dialogue in support of these policies by the European Union and other donors.

The ETF assessments rely on evidence from the countries collected through a standardised reporting template (national reporting framework – NRF) through a participatory process involving a wide variety of actors with a high degree of ownership by the country. The findings and recommendations of the ETF assessment have been shared and discussed with national authorities and beneficiaries.

The assessment report starts with a brief description of Kazakhstan's strategic plans and national policy priorities (Chapter 1). It then presents an overview of issues related to the development and use of human capital in the country (Chapter 2), before moving on to an in-depth discussion of problems in this area, which in the view of the ETF require immediate attention (Chapter 3). Chapter 4 provides the overall conclusions of the analysis.

The annexes provide additional information: a summary of the recommendations in the report (Annex 1), an overview of the education and training system of Kazakhstan (Annex 2).

The National Torino Process Report compiled by the country itself can be found here: <https://openspace.etf.europa.eu/trp/torino-process-2018-2020-kazakhstan-national-report> .



# EXECUTIVE SUMMARY

This European Training Foundation (ETF) assessment was prepared in 2019 on behalf of national authorities in the Republic of Kazakhstan (hereinafter: Kazakhstan) using a standardised framework questionnaire for national reporting (national reporting framework).

The assessment process included an extensive phase of desk research based on information provided by Kazakhstan in its national Torino Process report (hereinafter: national report)<sup>1</sup> and the preparation of an Issues Paper with an overview of themes to be discussed in the present report. These were then finalised in consultation with the ETF country and thematic teams responsible for Kazakhstan at the ETF. An advanced draft of the ETF assessment was circulated to national stakeholders and international partners and discussed at a consultation meeting in Nur-Sultan on 10 December 2019 to verify the findings and recommendations.

At the time of this assessment, the overarching, long-term strategic framework for the development of Kazakhstan is Development Strategy 2050, which envisages the realisation of seven long-term priorities. One of them refers to knowledge and skills as the main anchors of the modern system of education and human capital development (HCD) to which the country aspires. Some of the more ambitious goals in the strategy are to double the share of highly skilled graduates and to increase the educational attainment of the adult population.

At an education and VET sector level, the strategic actions and aspirations that guided the policies focused on in this report were described in the State Programme of Education Development 2016–2019<sup>2</sup>. This programme was replaced by State Programme 2020–2025 at the end of 2019, when this report was finalised for review<sup>3</sup>. Both the old and the new state programmes retain a focus on teachers, quality and equity, the elimination of regional and urban-rural disparities, the development of quality assurance systems, ICT and digitalisation and a transition from a system of formal education to a system of lifelong learning and research. Furthermore, Kazakhstan is an active participant and partner in a number of international initiatives and projects.

In this strategic context, the main question at the heart of this ETF assessment is whether the long-standing, considerable financial and political investment made by Kazakhstan in the area of human capital development and VET, as well as its achievements in relation to reform in this area, are wide-reaching and deep enough to bring the country closer to its long-term goal of becoming one of the most competitive economies in the world by 2050.

While there is ample evidence to suggest that Kazakhstan is on track to achieve this, the report also draws attention to three major challenges and numerous policy-related gaps around each challenge, which may create risks further down the road by slowing down the pace of positive change and undermining its sustainability and impact. These challenges include the ineffective distribution and use of state-sponsored opportunities for human capital development as a result of the unsatisfactory quality and limited relevance of teaching and learning in VET, which hampers the anticipated

---

<sup>1</sup> National report of Kazakhstan, prepared within the framework of the Torino Process, 2020. Available at <https://openspace.etf.europa.eu/trp/torino-process-2018-2020-kazakhstan-national-report>.

<sup>2</sup> Government Decision No. 460 of 24 July 2018: State Programme for Education Development 2016–2019.

<sup>3</sup> Government Decision No. 988 of 27 December 2019: State Programme for Education Development 2020–2025.

contribution of VET to the strategic development of the country, and deficiencies in workforce development caused by a lack of adult education.

## Human capital: overview of developments and challenges

### Depletion of human capital due to gaps in migration and employment policies

The national report of Kazakhstan describes in great detail a situation of accelerating brain drain. This brain drain occurs as qualified, prime-age individuals with the skills needed in the domestic labour market leave Kazakhstan. In many cases, the country has paid a premium for the development of these skills. Economists, teachers and technicians account for the three biggest professional groups of emigrants.

Some of the reasons behind the exodus of qualified people can be found in labour market problems. Although they may not be obvious in the official statistics, these problems concern the quality of jobs on offer and the working conditions. Informality and self-employment are widespread, and young people constitute one of the population groups most likely to find employment in such jobs, which are also poorly paid, offer limited or no prospects for development and provide weak labour protection.

The workers who leave the country are replaced by a stock of considerably lower qualified workers with only basic or lower secondary education. The number of incoming migrants with higher education is particularly small compared to the number of higher education graduates who leave. These trends pose a veritable risk to the national plans for human capital development in Kazakhstan for two major reasons.

The first is that the country does not seem to have yet developed any policies to promote circular migration. Circular migration is known to provide benefits for both the sending and receiving country, and for the migrants themselves, by generating and helping to distribute the financial, human and social capital generated by employment abroad. The second is the absence of a mechanism for the proper acknowledgement of immigrants, the identification and recognition of their professional skills (including recognition of informal and non-formal learning) and their proper and legal integration into the national labour market. This leads to wastage of their human capital.

### Cultivation of ICT talent through VET: a priority area at risk

Both the national report and the digitalisation strategy acknowledge that Kazakhstan is only at the beginning of its digitalisation trajectory. Much remains to be done if the good practices and innovation capacity seen in the dedicated hubs in Nur-Sultan and elsewhere are to become a driving force for the national economy. The development of human capital is thereby one of the priority areas in this respect.

To a large extent, the human capital development strand of the digitalisation strategy involves cultivating a new generation of information and communications technology (ICT) specialists, specifically in areas that are in the domain of vocational training, such as information systems and information security system designers, database management system developers and software developers.

To prepare the education and training sector for this responsibility, the digitalisation plans call for a revision of content and priorities in secondary general education and VET by adding new subjects to

the curricula, developing new professional standards and, as already mentioned, allocating a sizeable share of the state order<sup>4</sup> to promote participation in the new ICT-related courses.

However, at the time of preparing this assessment, the national report suggests that the VET system is not yet fully ready for these tasks due to systemic shortcomings that may risk the slowing down or even failure of the digitalisation plans. One such risk is the acute shortage of teaching staff with enough knowledge of foreign languages (English) and ICT. Another is the gap that exists between the education and training system and the ICT sector as a potential employer of graduate talent. There are problems in relation to communication and ICT employer participation in VET. This prevents the VET system from adjusting adequately and in a timely manner to the new, ICT-related demand in the economy and to the expectations associated with the digitalisation strategy.

### Shortage of VET specialists as an impediment to human capital development

For some years now, national authorities, stakeholders and the donor community in Kazakhstan have been prioritising teacher-related policies as an area of significance for better and more equitable education (OECD, 2014). Such policies have also recently been prioritised as a key area for human capital development through VET. Despite remarkable progress in improving employment conditions, professional development opportunities and remuneration for teachers, challenges in this area still remain. These challenges relate particularly to teachers and trainers in VET, who have been largely excluded from many of these improvements.

Unlike teachers in general education, teachers in VET do not receive financial incentives to engage in professional development and the conditions of their employment have remained largely unchanged. Furthermore, the salary scheme for trainers and masters in blue collar disciplines (in Russian *рабочие профессии* or working class jobs) still does not take into consideration their professional category and prior work experience.

These shortcomings lead to several problems. The most significant of these appears to be the shortage of teachers and trainers – especially in specialised subjects, which also happen to be the ones providing qualifications in high demand in the labour market.

### Assessment of key issues and policy responses

This section discusses three more problems related to human capital in Kazakhstan: the ineffectiveness of state-sponsored opportunities for human capital development through VET; the low quality of these opportunities; and deficiencies in the area of adult education as a means of workforce development. These challenges are assessed in greater detail because, in the view of the ETF, they require immediate attention as major human capital-related constraints to growth. They also concern policy areas that Kazakhstan has declared to be of strategic importance.

### Limited effectiveness of state-sponsored opportunities for HCD through VET

In 2012, Kazakhstan launched its long-term strategy for national development, in which it committed to becoming one of the 30 most advanced countries in the world by 2050. VET, and more specifically the

---

<sup>4</sup> The state order refers to study places funded through the state budget, usually in specialties which deliver qualifications that are projected to be in demand on the labour market.

## RECOMMENDATIONS

### 1. Diversify VET funding



Discuss changes to the system of public funding for VET

Consider introducing core funding for the institutional needs of VET providers



### 3. Improve career guidance services



Include the needs and expectations of students as well as labour market demand.

Better coordinate career guidance provision.



### 2. Revise state allocation of places in VET



Balance the distribution of opportunities for participation in VET in line with regional needs and conditions



### 5. Involve employers in developing VET



Create incentives and favourable conditions for the involvement of employers

Boost the involvement of employers in work-based learning and apprenticeship partnerships

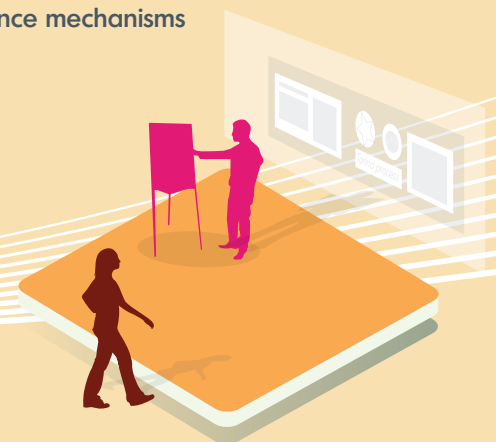
### 4. Upgrade the quality assurance system in VET



Update the quality assurance system in VET colleges

Shift the focus of quality assurance from compliance to performance

Investing in the development of robust internal quality assurance mechanisms



6. to



### 7. Close the data gap in the area of adult education and lifelong learning



Improve the evidence on adult education and lifelong learning

Analyse and make use of national OECD PIAAC data as a rich repository of information on the skills of the adult population



### 8. Incentivise employers to improve lifelong learning



Create flexible schemes to encourage the participation of employers in the creation of lifelong learning opportunities

Consider co-financing schemes for the professional training of adults

### Revisit financial allocations for VET increase capital investment



Update teaching and learning materials for integrated learning

Improve internet connectivity and e-learning content

Improve the physical infrastructure of VET colleges

### 9. Establish mechanisms for the recognition of non-formal and informal learning



Capitalise on the skills obtained through non-formal and informal learning

Expand the coverage and impact of adult education

labour market relevance of its outcomes, is seen as essential in the realisation of this strategy and other plans for economic and social progress through human capital development.

VET enrolment capacity and spending on VET have grown in line with the strategic significance of the sector, driven in part by a sizeable increase in the number of state-funded places. However, there are also indications that these state-sponsored opportunities are not being used effectively enough. This may prevent the VET sector from realising its full potential in the area of human capital development.

Specifically, the VET system continues to struggle to reach its main beneficiaries – students and their prospective employers – and address their needs and expectations. Employers too continue to experience difficulties in filling vacancies that require VET-related skills. Year after year, well over half of the jobs posted with the labour market services are for staff in occupations requiring vocational qualifications and remain unfilled.

Kazakhstan has embarked on a number of policy actions to remedy these shortcomings. Prominent examples include boosting the number of study grants (state order places or *Goszakaz*) allocated to VET programmes that lead to qualifications in high demand in the labour market, introducing a nationwide ‘VET for free’ initiative and focusing more closely on career guidance services.

The national report provides some evidence on the effectiveness and impact of these policies, which suggests that the policy responses are not as effective as anticipated. One of the reasons is that the planning and allocation of places and state grants for VET relies on an outdated methodology that does not capture the regional labour markets’ need for human capital. Another reason is that the majority of public VET schools still depend on the state order for most of their funding needs<sup>5</sup> and thus have an interest in retaining their historic enrolment capacity even if that means continuing to teach subjects that are no longer in demand. In turn, this leads to considerable misalignment between demand for places in VET and their supply, and to unmet labour market demand for skills. Finally, the system of career guidance is fragmented and lacks proper coordination.

### Low quality of VET as an impediment to human capital development

Vocational schools in Kazakhstan face difficulties in delivering the relevant outcomes for the labour market and consequently in performing their role in contributing to economic and social prosperity through human capital development. According to some sources<sup>6</sup>, some 70% of employers in Kazakhstan are dissatisfied with the skills of VET graduates, and VET graduates themselves feel that they struggle to find a job because their education and training are disconnected from the world of work. The transition time to first-time employment for VET graduates is 21 months, which is very long when compared internationally. Even after finding a job, close to half of all VET graduates do not find employment in their field of specialisation.

One of the major reasons for this situation is the limited relevance of the skills of VET graduates. In 2015, for example, the performance of VET students in science as measured by the Organisation for Economic Co-operation and Development’s (OECD) Programme for International Student Assessment (PISA) was 32 score points lower than that of students in general education. This is the equivalent of one year of schooling. The latest round of the OECD’s Programme for International Assessment of Adult Competences (PIAAC) in 2018 suggests that secondary education (including VET) in

---

<sup>5</sup> National report of Kazakhstan, 2020: E.5.1.

<sup>6</sup> See, for instance, Álvarez-Galván, 2014.

Kazakhstan is also not particularly effective. In terms of mean literacy proficiency, for example, young people (aged between 16 and 24) with secondary general education or VET in Kazakhstan perform almost as poorly as young people who have no secondary education or are not in education. The difference between both groups is 14.73 score points, which is the second lowest of all countries participating in PIAAC.

The national report of Kazakhstan describes a number of policy measures that are being taken in response to the second key challenge. These measures are at different stages of implementation. The majority of these responses strive to improve the labour market relevance of human capital development through VET, but a number of actions also aim to improve the quality of teaching and learning in VET more broadly.

To address the low quality of VET in the country, Kazakhstan is planning to implement a gradual change in the methods of instruction in VET to make them more student-centred and competence-based. On the other hand, measures designed to boost the labour market relevance of VET include highly diversified actions such as the independent certification of VET graduates by professionals employed in the graduate's respective field; the modularisation of programmes; the forecasting of skills needs; and the provision of entrepreneurship learning.

At the same time, there are a number of shortcomings at technical level in these policies, which prevent them from having a proper impact. These include an inadequate and outdated quality assurance and progress monitoring system, weak links between VET providers and employers (despite substantial progress in the area of dual education) and persistent deficits in the area of infrastructure investment and the availability of teaching and learning materials.

### Underutilisation of adult education for workforce development purposes

The third key challenge concerns the area of lifelong learning and adult education. In Kazakhstan, the educational attainment of the active, working age population is well above the average for countries in the EU and the OECD, which the authorities have chosen as a benchmark of development. Despite this long-standing achievement in terms of formal education, however, the working age population of both genders in Kazakhstan is, on average, significantly less proficient in literacy, numeracy and problem solving than the populations of other countries and the OECD. In fact, the 2018 PIAAC results suggest that, of all the 39 countries that participated in the assessment, Kazakhstan has the highest proportion of low-achieving adults in literacy and the seventh-lowest level of adult performance in numeracy.

This situation reinforces the importance of promoting opportunities for adult education and lifelong learning, as described in the national strategies. However, it also suggests that the implementation of strategic commitments in this area may not be as effective as planned and needed. The education and employment authorities in Kazakhstan promote adult education policies to support people who already have a job as well as those who need remedial training in order to find work. However, major shortcomings remain unaddressed, in particular the continuing absence of adult education data, the lack of incentives for employers who wish to participate in workforce development through adult education and the absence of mechanisms for the recognition of informal and non-formal learning.

## Recommendations

The recommendations in the report are grouped into three clusters, one for each key issue discussed in the assessment.

### First cluster of recommendations: effectiveness of HCD opportunities through VET

In the first cluster of recommendations (recommendations 1 to 3), the ETF proposes actions that aim to increase the effectiveness of state-sponsored opportunities for human capital development through VET. These actions are intended to address the policy-related shortcomings in the funding for VET, the methodological limitations in the allocation of state grants in VET and the limitations in career guidance which prevent students from taking informed choices about their education and training careers.

#### R.1 Diversify the streams of VET funding according to purpose

The ETF recommends that the national authorities (Ministry of Education and Science) initiate a consultation about changes in the system of public funding for VET with a view to diversifying the funding according to purpose and need 'on the ground'. This could include the introduction of core funding for the institutional needs of VET providers in order to free the discussions and decisions about state grant allocations from concerns regarding the survival of VET institutions, and refocus them on the original purpose of state grants: addressing the economic and labour market needs of the country and its regions.

In the present system, the state order serves multiple, and at times contradictory, purposes for which it was not designed. Such purposes include the funding needs of VET institutions, labour market needs at central and local level, student demand for places, as well as the implementation of national and education sector development strategies. This can easily lead to an overstretch and, as shown in this section, it limits the effectiveness of policies that promote opportunities for human capital development through VET.

#### R.2 Revise the mechanism for planning and allocating state order places to VET providers

The ETF recommends revising the mechanism of allocation used by the state order for priority programmes (blue collar professions) in VET, so that it leads to a more balanced distribution of opportunities for participation in VET in line with regional needs and conditions.

This will require a more thorough revision of the methodologies used to anticipate labour market demand at regional level and much greater involvement of stakeholders in the regions, in particular employers, in the planning of the state order than is the case now.

#### R.3 Revise the career guidance services with a view to improving their effectiveness

The ETF recommends recalibrating the focus of career guidance services so that they consider not only labour market demand, but also the needs, expectations and aptitudes of students. There is also a need for better coordination of career guidance provision. Prior research suggests that parents can also benefit from such changes as they help to ensure that their influence on their children's career choices is well informed.

Initial steps in this direction could be to strengthen the coordination between career guidance providers and to consolidate a strategy for developing career guidance as an essential element in the promotion of better and more relevant VET.

## Second cluster of recommendations: low quality of VET

The second cluster of recommendations (recommendations 4 to 6) targets some of the underlying reasons for the persistent problem of low quality and relevance of human capital development. These reasons include the inadequate quality assurance and progress monitoring system, the (still) weak links between VET providers and employers, shortcomings in infrastructure and shortages in the availability of teaching and learning materials.

### R.4 Upgrade the quality assurance system in VET in line with priorities for human capital development

The ETF recommends bringing the quality assurance system in VET colleges ‘up to speed’ with the range of changes taking place in the rest of the VET system. The present system focuses heavily on compliance with norms and standards and on ensuring that providers can be held accountable by education authorities, stakeholders and the broader public.

Without doubt, this is an important aspect of quality assurance, but the multitude of reforms in education and training also call for a more flexible and open approach in which the focus shifts from mere compliance with norms to promoting the performance of VET providers and guiding their improvement. This should happen in parallel with the continuation of efforts already underway to develop robust internal quality assurance mechanisms in VET.

### R.5 Stimulate the involvement of employers by creating incentives and favourable conditions for their participation in the advancement of VET

The ETF recommends providing employers with a diversified set of incentives – financial or otherwise – to get involved in consultations around the design and delivery of VET programmes. These incentives should be robust and ambitious enough to boost the currently modest level of involvement of small and medium-sized enterprises (SMEs) in work-based learning schemes and partnerships. Examples could include tax breaks, the prospect of short-term adjustments in training content in order to address immediate employer needs and access to business development loans with more favourable conditions.

### R.6 Revisit and calibrate the financial allocations for VET to increase capital investment

The ETF recommends revisiting the financial allocations for VET with a view to increasing capital spending in areas of significance that affect the contribution of VET to human capital development. Examples of such areas include up-to-date teaching and learning materials, including materials in priority languages for integrated learning; high-speed internet connectivity and e-learning content; and improvements in the physical infrastructure of all VET colleges to ensure that they can provide decent, up-to-date teaching and learning environments. In circumstances that may not allow for spending increases of this kind, the ETF recommends intensifying the ongoing work on promoting public-private partnerships.

## Third cluster of recommendations: adult education for workforce development

The third and final cluster of recommendations (recommendations 7 to 9) are intended to help remedy some of the challenges concerning the use of adult education for workforce development purposes. At the time of this assessment, such use was hampered by a lack of proper data; the absence of incentives for employers to participate in the provision of adult education opportunities and support the professional development of their employees; and the lack of progress in developing mechanisms for the recognition of non-formal and informal learning.

### R.7 Close the data gap in the area of adult education and lifelong learning

The national report and this assessment noted that there is a lack of tools for analysing and evaluating the effectiveness of reform in education and training, and that this problem is particularly pronounced with respect to adult education.

The ETF recommends the speedy closure of the gap in the availability of evidence on adult education and lifelong learning. A first step in that direction would be to analyse the OECD's national PIAAC data with a view to preparing policy briefs and analytical reports for the purpose of policy planning and implementation. The national PIAAC data is a rich repository of information on the skills of the adult population that can be used for monitoring and policy planning purposes.

### R.8 Incentivise employers to participate in the creation of opportunities for lifelong learning

The ETF recommends creating flexible schemes to encourage the participation of employers in the creation of lifelong learning opportunities, for instance co-financing schemes for the professional training of adults in employment and those looking for employment, based on training programmes and curricula in the VET sector.

### R.9 Establish mechanisms for the recognition of non-formal and informal learning

The ETF also recommends establishing a mechanism for the recognition and validation of informal and non-formal learning in order to capitalise on the skills obtained in this way. It also recommends expanding the coverage and impact of adult education as a policy priority. This may require the development of robust and novel procedures and criteria, especially where recognition leads to qualifications that are the same or comparable to those delivered by formal education and training. Reforms in this area may also call for revisiting the quality assurance system.



The ETF launched the Torino Process in 2010 as a periodical review of vocational education and training (VET) systems in the wider context of human capital development and inclusive economic growth. While providing a quality assessment of VET policy from lifelong learning (LLL) perspective, the process builds on four key principles: ownership, participation, holistic and evidence-based analysis.



[www.etf.europa.eu](http://www.etf.europa.eu)



[www.twitter.com/etfeuropa](https://www.twitter.com/etfeuropa)



[www.youtube.com/user/etfeuropa](https://www.youtube.com/user/etfeuropa)



[www.facebook.com/etfeuropa](https://www.facebook.com/etfeuropa)



[www.instagram.com/etfeuropa](https://www.instagram.com/etfeuropa)



[openspace.etf.europa.eu](http://openspace.etf.europa.eu)

