Chapter 4. Business environment in Central Asia: Skills

This chapter provides an overview of skills challenges facing the private sector in Central Asia. Vocational education and training (VET) can play a crucial role in responding to the needs of the labour market and of the economy. Employers must be involved in VET policy making to ensure it provides the right mix of skills. The OECD has helped design VET instruments in Kazakhstan and Kyrgyzstan. These two case studies suggest a need to strengthen firms' involvement in public-private dialogue on skills, and to support the implementation of key VET instruments for small and medium-sized enterprises.

Setting the stage

Central Asian firms face skills gaps that vocational education and training can help bridge

A well-educated and skilled workforce is a cornerstone of a country's competitiveness, fostering high productivity, growth and innovation. Skills development policies are thus crucial in promoting inclusive growth (OECD, 2015[1]). VET policies are essential in responding to labour market needs, and contribute to economic competitiveness. Policy reforms in this area can be considered a priority, and need to foster the engagement of employers in developing a well-skilled labour force and to meet labour market requirements (OECD, 2010[2]; 2016[3]).

SMEs are usually quite exposed to skills gaps considering their limited capacity to address skill needs internally (OECD, 2016[3]). They have limited resources to identify, hire and train employees, in terms of both time and money. They have small internal training and human resource management capacities to organise training and prepare complicated paperwork, activities which typically involve significant fixed costs and economies of scale. They might have important losses of production during training and retraining periods, even if such training is beneficial on the long term. SMEs are also very sensitive to employee turnover and more dependent on the performance of each employee (G20/OECD, 2015[4]).

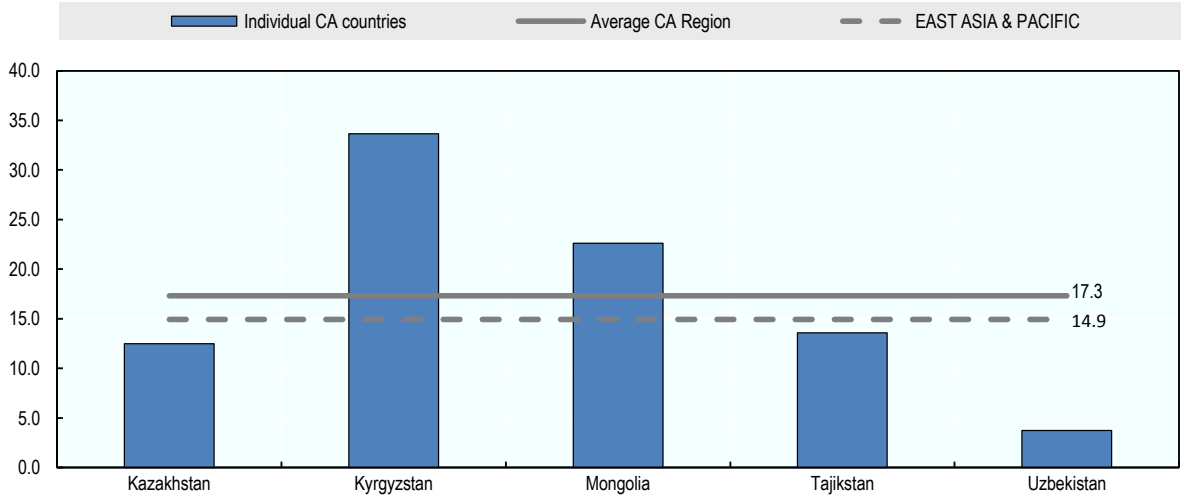
VET policies aim to ensure that the competencies provided by the education system match those needed in the workplace and to smooth the transition from education to work (G20/OECD, 2015[5]). VET can provide the labour force with a wide range of trade, technical and professional skills needed by companies. VET institutions typically teach practical occupational skills that are needed in the labour market and that will make graduates immediately employable and more productive. VET programmes also increasingly aim to build cognitive (numeracy, literacy) and social-emotional skills (team working, communication) to allow trainees to be more flexible and to be able to adjust to changing market needs after their courses are completed (OECD, 2010[2]).

One of the main challenges for VET policies is to provide more formal workplace training activities for SMEs, which constitute the great majority of enterprises and provide the bulk of employment in most countries (UNESCO, 2017[6]). At initial VET level, workplace training helps students better understand the world of work, and transition to jobs in SMEs and in large companies. Continuous VET allows workers to broaden their knowledge and skills base, thus helping businesses to increase their productivity and innovate (OECD, 2014[7]). SMEs tend to make less use of formal training and VET programmes. In OECD countries, employees of SMEs have 50% less access to training compared to large firms (OECD, 2016[3]).

These challenges are highly relevant for Central Asian countries. They have achieved virtually universal literacy, but companies in the region regularly report that insufficient human capital development and skills mismatches are key challenges. Almost one-fifth of companies surveyed in the EBRD/World Bank Business Environment and Enterprise Performance Survey (BEEPS) identify an inadequately educated workforce[1] as a major constraint on business development (Figure 4.1). The most recent BEEPS data suggest that this constraint might even be underestimated by companies, compared to access to finance and taxation in the aftermath of the financial crisis (EBRD, 2017[8]).

Figure 4.1. Educational adequacy of the workforce for SMEs in Central Asia

Percentage of SMEs identifying an inadequately educated workforce as a major constraint in Central Asia and in other developing regions



Source: (EBRD, 2017[8])

Identifying skill needs and recruiting are also challenging steps for SMEs in Central Asia. The labour market infrastructure in the region tends to be underdeveloped with few job offer websites, limited access to the Internet to search individual company websites and few places where job offers are physically displayed, such as VET schools and employment centres. This creates high transaction costs for SMEs when it comes to expressing their resource needs and identifying suitable candidates. It also makes things more difficult for job seekers. Geographical distances in the region add to the cost and complexity of the recruitment phase (OECD, 2013[9]; 2014[7]; 2016[3]).

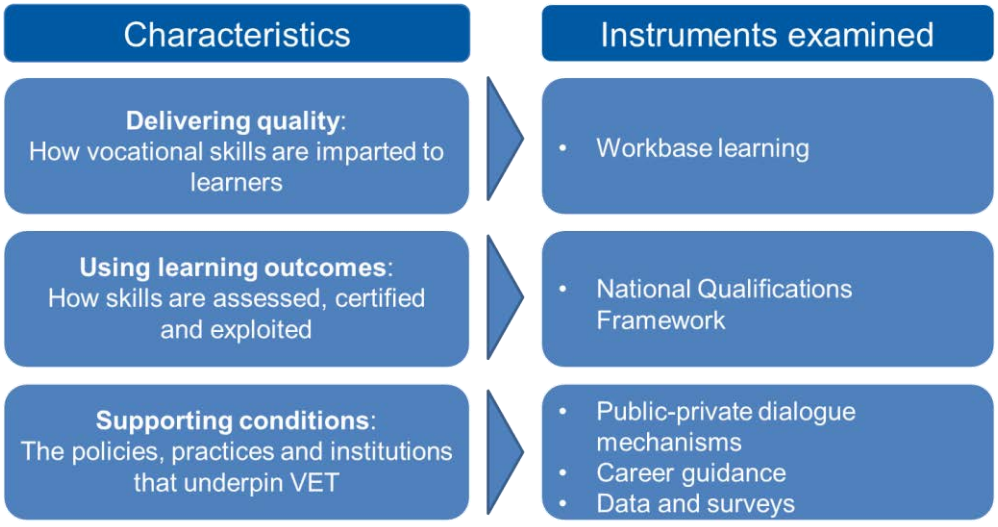
Only 45% of employees of the SMEs surveyed by BEEPS in Central Asia have access to formal training as part of lifelong learning (EBRD, 2017[8]). This is significantly lower than in other regions. For example, the percentage is 67% in East Asia and Pacific. SMEs in the region are less likely than large companies to partner with VET institutions to organise training sessions or to release workers from their daily work to attend training (OECD, 2013[10]). SMEs also underline the lack of incentives to fund and participate in formal training and the limited visibility and targeting of the training offered by VET institutions (OECD, 2016[3]).The lack of skill surveys, including those aimed at SMEs, makes it hard for VET institutions to identify what type of skills are needed by the majority of SMEs, and adjust their training to offer to better target SME needs.

The OECD report on Skills beyond School outlines the characteristics of a well-functioning VET system

The OECD offers a set of tools and recommendations to address key policy challenges and support the development of VET systems (OECD, 2010[2]). Drawing on international experience, it has defined the key characteristics of strong vocational education systems, with its findings covering both initial and continuous VET (OECD, 2014[11]). Three characteristics have an immediate effect on SMEs (Figure 4.2). They are 1) the quality of training, and how it matches employers' needs; 2) the assessment and certification of

skills, allowing skills acquired in SMEs to be recognised and transferred; and 3) the supporting conditions for VET policies that enable SMEs to better understand and be involved in VET policy making and implementation (OECD, 2014[12]). This chapter will examine these characteristics more in detail, alongside the specific instruments supporting them. [2]

Figure 4.2. Key characteristics of effective vocational systems



Source: (OECD, 2014[11])

Based on these key characteristics of effective vocational systems, the OECD has recommended the use of the following VET instruments to enhance the efficient of VET in OECD member and non-member countries (OECD, 2014[12]).

Workplace training, such as apprenticeships and internships, provides a strong learning environment for SMEs and for employees. It can help close the skills gap by accelerating the transfer of knowledge between the educational system and firms. Such training can also reduce information asymmetries between SMEs and the workforce and foster the development of on-the-job skills (OECD, 2014[7]).

National qualification frameworks (NQFs) are classification tools aimed at enhancing the quality and relevance of qualifications between the educational institutions and the labour market (European Union and GOPA, 2016[13]). They can increase the transparency of qualifications and make skills assessment easier for SMEs, help secure recognition of skills acquired in SMEs, and help SMEs to identify relevant VET programmes. **Occupational standards** (OSs) are complementary tools that are key to defining common standards of performance, and the knowledge and skills employees need to perform effectively (OECD, 2015[1]).

Public-private dialogue mechanisms such as public-private boards and skill surveys can foster collaboration with SMEs. Formal boards can discuss skill needs and the current VET instruments, and help design policy solutions. Representing the voice of SMEs is a major challenge that could be addressed by involving SME representatives and business associations with a majority of SME members.

Career guidance has become increasingly important and demanding in a rapidly evolving job environment. Students need independent, informed, reliable guidance that will provide them with good knowledge of the labour market and of learning opportunities, and help them make relevant career choices. This requires career centres to develop strong links between VET schools and companies (OECD, 2010[2]).

Strong data on the labour market, skills needs and VET training are crucial to informed policy making. **Skill surveys** are useful tools that governments can use in collaboration with business associations to understand skills needs, training practices, and the relevance of VET programmes for SMEs.

OECD work on VET in Central Asia suggests increasing public-private dialogue, enhancing the legal framework and strengthening institutions

All Central Asian countries have started to adopt, design and implement VET strategies and policy instruments (Table 4.1) (ETF, 2014[14]).

The OECD has studied VET systems in two Central Asian countries, Kazakhstan and Kyrgyzstan. These were peer-reviewed in 2013/2016 and 2014 in the OECD Eurasia Competitiveness Roundtable. Kazakhstan provides an example of a country implementing a NQF and OSs. Kyrgyzstan has designed new measures to develop workplace training for both initial and continuous VET. Key recommendations that could benefit other countries in the region include:

- **Increasing public-private dialogue**: policy makers in Central Asia should further involve private firms – particularly SMEs – in public-private dialogue mechanisms. The private sector is increasingly involved in the making of skills policy and established formal and informal channels to discuss VET policies, including skills councils. The involvement of SMEs in this process can be further enhanced by ensuring that business associations represent the voice of SMEs, by involving incubators and entrepreneurs' associations, and by organising specific sessions for SMEs within the existing national skills councils. Other forms of consultations, like skill surveys and field interviews, can also be used to gather information from firms.
- **Enhancing the legal framework and building institutions**: for example, the OECD has recommended that Kazakhstan empower an institution in charge of the NQF and OS and design incentives targeting SMEs. In Kyrgyzstan, the implementation of workplace training has demonstrated the need to revise the legal framework – including the labour code – and to design incentives targeted at SMEs that could raise their interest in offering workplace training.

Table 4.1. Overview of selected VET development in Central Asia

Country	Kazakhstan	Kyrgyzstan	Mongolia	Tajikistan	Uzbekistan
Workplace training	Workplace training required by law in VET programmes, but limited evidence of their use	New legal framework and (tax and financial) incentives for workplace training under approval	Limited evidence of the use of workplace training	Limited evidence of the use of workplace training Predominance of informal employment	Active partnerships between VET institutions and companies on workplace training Financial and tax incentives for SMEs when hiring VET graduates
National qualification framework	Establishment of an NQF OS under development	Principle of an NQF approved by the government	NQF under development	NQF mentioned in the national strategy but still at a conceptual level	NQF not yet established
Public-private dialogue mechanism	Existing national, regional and sector VET councils, with irregular meetings Creation of state holding Kasipkor in charge of modernising VET Key role played by the National Chamber of Entrepreneurs (Atameken)	Creation of National Skills Council and sector councils High levels of involvement by business associations in policy dialogue, including the CCI Creation of a dedicated VET agency	Quarterly meetings of the National Council on VET Strong involvement of the CCI and of the Mongolian Employers' Federation (MONEF) Creation of a network of centers for employment service	Creating of a National Advisory Board for VET 73 public training centres offering training for SMEs	Sector skills councils being developed SME voice represented by the CCI
Career guidance	Creation of career centres in the most recent education institutions	Recent development of career centres in several VET and tertiary institutions	Public-private cooperation and career advice supported by Social Partnership Officers in VET schools	Career centres not developed in VET institutions	N.a.
Data and surveys	Data collected by the Ministries of Labour and of Education and by the National Statistical Institute, no comprehensive set of data No skill survey	Data mainly based on the national household survey Limited data on employers and VET students No specific skill survey	Development of a labour market information system No skill survey	No labour market information system No skill survey	Existing set of data on VET Limited dataset on key education indicators No skill survey
What can be done	Further involve SMEs in policy dialogue and skill councils Complete implementation of VET tools, including OS and workplace training	Increase the use of data and business inputs into policy-making Strengthen the links between business and VET institutions Implement new regulations on VET instruments	Develop sector councils e.g. textile agriculture, construction - Further involve businesses in implementing VET instruments, including the NQF and workplace training	Further involve companies in VET policy dialogue and implementation Further use donor support for education and skills Promote the use of VET instruments to companies	Continue to involve SMEs and the business community in the implementation of VET instruments adapted to SMEs, including NQF and skill surveys

Source: OECD analysis based on (ADB, 2016[15]; Álvarez-Galván, 2014[16]; Ashurov, 2015[17]; ETF, 2014[14]; ETF, 2014[18]; ETF, 2015[19]; ETF, 2015[20]; ETF, 2016[21]; European Union and GOPA, 2016[13]; Ministry of Labour and Social Protection of Mongolia, 2016[22]); (OECD, 2013[9]; OECD, 2013[10]; OECD, 2015[1]; OECD, 2016[3])

Kazakhstan: Designing occupational standards

Bridging skills gaps is a key concern for Kazakhstan's businesses. In 2016, the OECD advised the government to make more use VET instruments, especially national qualifications frameworks (NQFs) and occupational standards (OSs). Its recommendations included further involving the private sector, building appropriate local institutions and expertise on these instruments, and developing education curricula based on them. This work was applied to a promising sector for Kazakhstan's economic diversification, the petrochemical and chemical industry.

Context: Vocational education and training in Kazakhstan's petrochemical and chemical industry

Kazakhstan is well positioned to develop its domestic petrochemical and chemical industry as part of its overall diversification efforts because of growing internal and external demand, proximity to substantial markets, and its rich natural resource endowments. Worldwide, global competition is driving a trend of continuous up-skilling, re-skilling and multi-skilling of the current workforce, producing better-qualified new entrants. Skills upgrading in turn can encourage cluster development in the sector and attract foreign investment (OECD, 2009[23]). The sector is thus a meaningful case study on how the improvement of skill policies could help the country develop higher value added industries.

Kazakhstan's petrochemical and chemical industry lacks qualified staff. The United Chemical Company (UCC), the institute responsible for bolstering Kazakhstan's chemical industry, has identified staff needs to be almost 6 000 people for the projects that it is overseeing (plant operators, mechanics, dedicated experts etc.) (United Chemical Company, 2015[24]). According to a survey by the European Bank for Reconstruction and Development (EBRD), inadequate workforce skills constitute one of the biggest problems faced by Kazakhstan's firms, especially the larger ones (EBRD, 2015[25]).

Vocational education and training (VET) is essential for growing the petrochemical and chemical industry, which involves complex industrial processes, equipment and working methods requiring highly specialised technicians (Box 4.1). Semi-skilled and skilled workers (technicians) make up a large portion of the workforce in the petrochemical and chemical sector, with jobs such as process operators, maintenance technicians, laboratory technicians and mechanical testing technicians. As an example, in Germany, which has the most developed chemical industry in Europe, 56% of workers employed in the chemical industry in 2011 were skilled workers with vocational education and training (56% skilled workers, 16% graduates, 13% technicians, 10% unskilled workers and 5% trainees) (CEFIC, 2013[26]; Union of Chemical Industries of Lyon, 2015[27]; ILO, 2011[28]). In the United States, which produces 15% of the world's chemicals, production occupations made up about 42% of total employment in the sector in 2009. Installation, maintenance and repair specialists accounted for 10% of the total (American Chemistry Council, 2015[29]).

Within the VET system, occupational standards (OSs) in particular, are an essential link between workplace employment requirements and human capital development (i.e. education and training programmes), and affect individuals throughout their lives. Kazakhstan currently lacks any occupational standards for petrochemistry. A few standards have been developed for the chemical sector, but employers were not sufficiently involved in the process.

Box 4.1. Vocational education and training in petrochemistry in Atyrau

Kazakhstan's Atyrau region in the west of the country has great potential for petrochemical production. In 2013, Atyrau accounted for 46% of Kazakhstan's total oil and gas production. The region is near to some of Kazakhstan's major oil fields, as 90% of explored fields are in western Kazakhstan (Dzekunov and et al., n.d.[30]). The Programme for Industrial-Innovative Development of Kazakhstan for 2015-2019 identified petrochemistry and the production of chemicals for industry as priority sectors for Atyrau. The Integrated Petrochemical Complex located in the region is targeting polypropylene production of 500 000 tonnes per year and polyethelene production of 800 000 tonnes per year. The Atyrau refinery is being upgraded to construct an aromatic hydrocarbon facility, which will enable it to begin production of benzene and paraxylene – basic products for Kazakhstan's petrochemical industry. To do so, the region would require staff with strong vocational education and training to satisfy the demands of the industry.

However, in spite of this context, Atyrau's colleges do not yet offer specialised courses in petrochemistry. Some institutions are considering creating programmes in this field (for example, Atyrau Polytechnic College and the Atyrau Petroleum Education Centre – Atyrau Petrotechnic). Atyrau Petrotechnic conducts training in oil and gas, and is establishing links with oil and gas companies in the region. It is planning to introduce a few chemistry programmes in the short term. The United Chemical Company is also considering creating a competence centre to train staff for the Atyrau petrochemical complex. The existence of occupational standards in petrochemistry and chemistry would facilitate these endeavours, and align companies and education institutions around a common understanding of occupations in this industry.

Source: OECD interviews 2013-2015; (Dzekunov and et al., n.d.[30]; United Chemical Company, 2015[24]; KPI Inc., 2015[31]; Polytechnic College, 2015[32]; Business Monitor Kazakhstan, 2013[33]; KazMunaiGas, 2015[34])

Focusing on occupational standards will facilitate dialogue between the government, business and education institutions (Box 4.2). In addition, it will standardise the definition of occupations in the sector and will make it easier for companies to forecast their short, medium and long-term skills needs. Finally, it will improve the responsiveness of study programmes to business requirements by basing them on a common understanding of what students must be able to learn and be able to do by the end of their studies. Ultimately, occupational standards will increase the competitiveness of the petrochemical and chemical industry.

Box 4.2. Occupational standards

Occupational standards (OSs), sometimes also called professional or competency standards, are standards of performance that people are expected to achieve in their work, as well as the knowledge and skills they need to perform effectively. A standard for an occupation (e.g. carrying out maintenance in downstream operations) is usually a document that lists:

- the tasks and activities to be carried out (e.g. check status of all relevant utilities, such as steam, water, electrical, pneumatic systems)
- the knowledge and skills required (e.g. how to use the company's Safe Systems of Work processes to identify hazards and mitigate or reduce risks to as low as reasonably practicable)
- (sometimes) the work conditions/context which might affect the required activities, knowledge and skills.

Occupational standards are a key component of an effective VET system. By aligning terminology on occupations, they facilitate public-private dialogue, and improve transparency and communication among all stakeholders. They also facilitate supply and demand analysis and maintenance of statistics due to streamlined terminology. They optimise the responsiveness of education programmes to business demands. Occupational standards have been linked to improved human capital development and productivity increases.

Occupational standards offer additional benefits for the private sector and for education institutions. They assist employers in identifying employee competency gaps to improve in-company training, in developing job descriptions, recognising competencies and qualifications, transferring foreign technologies and organising work processes. Development of occupational standards often also involves closely associated activities, especially functional analysis, which enables industry to identify in a strategic and forward-looking way the optimal mix of occupations needed in the short, medium and long term. Educational institutions and employers then use occupational standards for developing standard-based qualifications and curricula, and skills assessment and certification instruments.

Source: OECD analysis; (OECD, 2010[2])

Challenges: The development of occupational standards

The OECD has identified three main challenges to the development of occupational standards and their integration in the VET system in the sector, with relevance for other sectors of Kazakhstan's economy.

The institutional framework is weak

The domestic structure for creating, monitoring and updating occupational standards is sub-optimal, and there is no body responsible for developing occupational standards in petrochemistry or chemistry.

The Ministry of Healthcare has a small team, fewer than ten people, acting as a secretariat for developing occupational standards in Kazakhstan, with input from other ministries. This is insufficient to deal with all economic sectors. As a comparison, each of the UK sector skills councils, responsible for occupational standards, have about 30-80 people (Cogent Skills, 2015[35]). This institutional weakness is especially relevant in view of Kazakhstan's plans to develop occupational standards for all sectors of the economy by 2020 (2015[36]). The National Chamber of Entrepreneurs, which is charged with co-ordinating the work on occupational standards from 2016, does not yet have a plan of action for this new role. Additionally, other organisations have tried to establish their own occupational standards – including the Atyrau regional government, the Polytechnic College in Atyrau, the United Chemical Company, KazEnergy association and the Atyrau Chamber of Entrepreneurs. However, none of these were for petrochemistry and very few for chemistry. This multilateral action also leads to incompatible terminology being used to describe occupations, making it difficult for stakeholders to forecast their skills needs or to create study programmes.

The government has taken some initial steps towards improving public-private dialogue, for example by establishing skills councils at national, regional and sector levels. However, employers are not sufficiently involved in the process of developing occupational standards. For instance, Kazakhstan's VET Council on the Petrochemical Industry does not have enough private sector representatives and has no role in developing occupational standards. It is in fact unclear which sector association represents the interests of the petrochemical industry in developing occupational standards. In addition, several petrochemical companies that were interviewed were not aware of the government initiative to develop occupational standards in this sector. Even the state-owned United Chemical Company, which is responsible for developing the chemistry sector, was not involved in developing the occupational standards in this sector. The standards developed for other sectors of the economy by the (then) Ministry of Healthcare and Social Development only involved employers at the review stage, but not in the development process.

Finally, Kazakhstan lacks local experts on occupational standards and on competency-based education, because even though Kazakhstan has contributed to the development of occupational standards, so far their development has taken place within the framework of international projects.

There are no mechanisms for applying occupational standards in the VET system

Occupational standards must form the basis for study programmes and for the assessment of qualifications. The government has recently recognised the importance of the link between professional and educational standards and has expressed the wish that occupational standards form the basis for study programmes and the retraining of specialists (2015[36]). However, the current VET system does not have an effective mechanism for translating occupational standards into education curricula, or for the assessment and certification of qualifications. Existing education standards do not specify that they must be based on occupational standards, and Kazakhstan's curricula are not oriented towards learning outcomes. In addition, four independent pilot assessment centres have been established by professional sector associations for six sectors (metallurgy, oil and gas, tourism, machine building, information and communication technologies, and construction and utilities). However, none of these centres conducts assessments based on occupational standards. In the future, the government plans to

charge the National Chamber of Entrepreneurs with forming independent assessment centres – it should ensure that their assessments are based on occupational standards.

Awareness of occupational standards is limited

Given their novelty, there is a lack of awareness, especially in the private sector and among regional stakeholders, of the overall concept and the practical application of occupational standards and competency-based education in Kazakhstan, or of the existing government initiatives. This leads to a lack of co-ordination of existing initiatives. This lack of awareness was confirmed in Atyrau region and at national level during meetings with some education institutions and private companies.

Recommendations to improve occupational standards and bridge skills gaps in Kazakhstan

This section recommends several actions, based on international good practice, to address the challenges encountered in developing occupational standards and to integrate them into Kazakhstan's vocational education and training (VET) system for the petrochemical and chemical industry.

Recommendation 1: Put in place a domestic institutional structure to enable OS to support a well-functioning VET system

The government should strengthen the permanent domestic structure for creating, monitoring and updating occupational standards. Implementing this recommendation will involve three actions: 1) strengthening the institution responsible for creating and updating occupational standards, backed up with sufficient, qualified staff and appropriate financing; 2) developing mechanisms for public-private dialogue; and 3) fostering domestic expertise in developing occupational standards.

Action 1: Assign an institution for creating and updating standards

A single institution, such as a skills council, should be responsible for occupational standards in petrochemistry and chemistry, and should act as a secretariat for their development. The institution should ideally be outside government, to avoid it being dominated by civil servants. Having one institution with clear responsibility and powers will be important for streamlining procedures and standards. For example, in the United Kingdom, a skills council called Cogent Skills maintains occupational standards in science-based industries. In Ukraine, the Institute of Professional Qualifications is a non-governmental co-ordinating body aiming to contribute to a commonly recognised system of professional qualifications, including assistance to employers in developing occupational standards (Kolyshko, 2014[37]). In order to prepare for establishing a formal body in charge of developing occupational standards, a working group could be established to launch the process in the petrochemical and chemical industry at the national level. The institution should have access to labour market information to help identify the skills and qualifications that are in demand. It could either gather these data on its own, or commission them from other organisations. Labour market information is also important for career guidance and for accrediting VET programmes based on their correspondence to market needs. To date, career guidance services in Kazakhstan's VET institutions do not seem to have adequate data to undertake their work effectively (Álvarez-Galván, 2014[16]). The institution should also study current national and international trends in sector employment and forecast future trends for the sector to help

it decide which qualifications and occupational standards should be introduced. It should then conduct working sessions with employers to define the standards. Once agreed, the standards should be made available on the registry of occupational standards, maintained by the Ministry of Healthcare and Social Development and the Ministry of Justice. The institution should regularly update the standards, either through a formal, timetabled approach or through an informal approach, "on the demand" of employers.

The institution will need sufficient funding – for core staff and infrastructure, as well as for the working sessions with employers. Standards-setting organisations usually rely on a variety of funding sources: from government resources, international resources, grants and levies from stakeholders, product sales and services, etc. In the United Kingdom, Cogent Skills spent on average EUR 61 215 on finalising 30 occupational standards (the range in the United Kingdom is approximately EUR 40 810-122 428), excluding costs to employers for sending their employees to standard-development sessions (Cogent Skills, 2014[38]). On the other hand, it is standard practice for employers to cover their employees' costs in working sessions with employers. In France, a specific tax on salaries is paid by enterprises to fund vocational training. Enterprises can be partially exempted from this tax when their employees take part in vocational training, for example, as members of assessment bodies or bodies in charge of designing qualifications.

Should funding be limited, then generic occupational standards could be adopted from other countries (e.g. financial management or human resource management). Generic occupational standards are non-sector-specific. However, sector-specific occupational standards should be developed by the sector itself. This could possibly be done by adapting overseas occupational standards, but not by adopting external examples unchanged.

Action 2: Develop mechanisms for public-private dialogue

International good practice dictates that occupational standards should be employer-led to ensure that they reflect business needs. To achieve this, Kazakhstan should establish effective mechanisms for public-private dialogue, including:

- **Strategic public-private working sessions**: public-private working sessions are the ideal forum for developing occupational standards. They must bring together a mix of employer and employee representatives. Ideal representatives of the "employer" are actual job holders or first line supervisors. If they are not available, training managers and people responsible for relevant business functions (e.g. managers of departments concerning manufacturing, quality assurance, engineering and technology) could participate. Should human resource managers be involved, it should be mainly to support the process, with the substantive part being developed by the employer representatives. The working groups can be complemented by interviews, company visits, document analysis and surveys (Bosch and Spilioti, 2013[39]). Since private sector participation is not well developed in Kazakhstan, the government could encourage it using a range of tools, such as financial support or memoranda of understanding with employers.
- **Well-structured and strong professional sector associations:** the government of Kazakhstan should ensure that sector associations for petrochemistry and chemistry are well-developed and can voice their concerns to the institution charged with developing occupational standards. However, the petrochemical industry does not have its own sector association. The KazEnergy sector

association currently represents the interests of the oil and gas sector, and the government-run holding United Chemical Company and the chemical industry union represent the interests of several chemical companies. A special effort must be made to include SMEs in the associations, as their needs might be quite different from those of larger companies.

- **Strong links between the industry and the VET system:** the government should explore other means to engage employers in the VET system. This includes strengthening the Kazakhstan VET Council on the Petrochemical Industry by including an adequate number of private sector representatives; increasing transparency in its decisions, meeting dates and outcomes; and ensuring that membership information is made available online. Boards of Trustees in education institutions should also include enough private sector representatives. Work-based training promotes partnership between education providers and employers and should be encouraged (OECD, 2014[12]). This comprises apprenticeships, informal learning on the job, work placements that form part of formal vocational qualifications and internships of various types. In the longer term, Kazakhstan should encourage education institutions to obtain more of their funding from the private sector itself.

It must be kept in mind that in a context in which the private sector is not used to close collaboration with the education sector, the government might need to play a leading role. For example, in most EU partner countries, it has been difficult to involve industry in the development of new occupational standards, therefore public authorities have had to remain the driving force (ETF, 2011[40]). This is due to the lack of representative organisations at national and sectoral levels, as well as the absence of professional capacity among social partners to deal with VET matters in the context of reform.

Action 3: Foster national expertise in developing occupational standards

Domestic expertise is very important for occupational standards, as they are more effective and have more stakeholder buy-in when they are developed domestically. The national structure for occupational standards should ideally be supported by two types of local expertise:

5. Technical experts with knowledge of the industry who can lead the standard-development sessions with employers. The role of these experts would be to moderate working sessions with industry representatives to agree on the content of occupational standards. These experts should ideally be citizens of Kazakhstan with a good knowledge of the industry and of the education sector. They will need to be trained in occupational standards methodology to avoid the risk of over-emphasising the technical side to the detriment of the other aspects of employability.
6. Local experts with knowledge of the local education and VET system. These experts should work in the secretariat for creating and updating occupational standards.

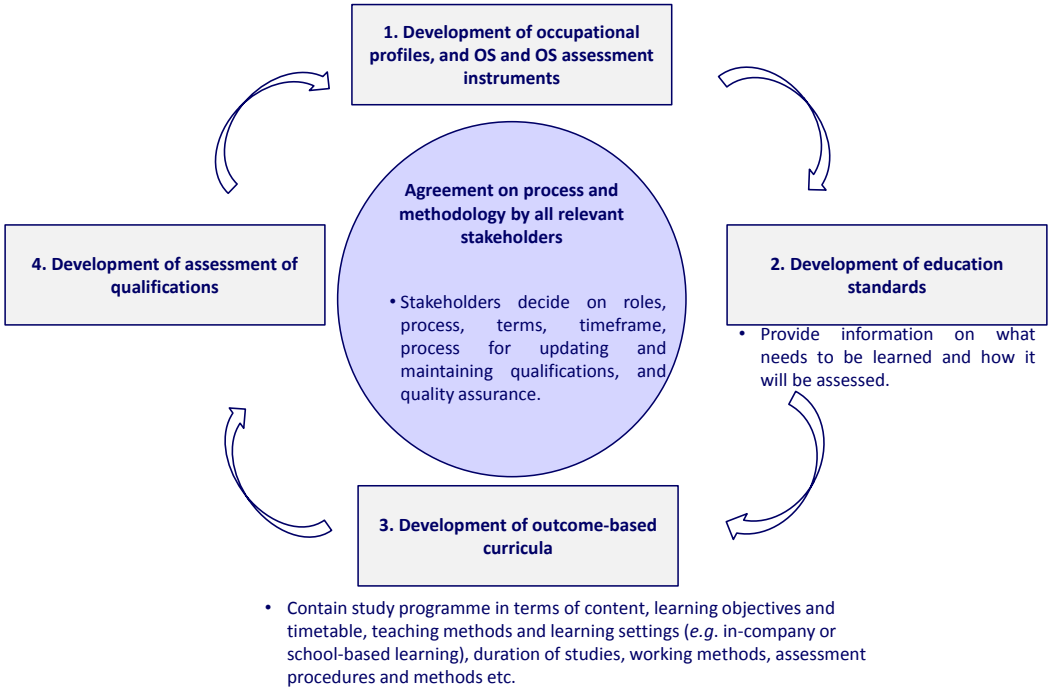
To build national expertise, effective mechanisms should be used to exchange knowledge between international experts and domestic experts. Any local staff participating in international projects should pass on their knowledge to other local stakeholders in the ministries and associations through training sessions. To begin with, a survey of existing experts should be conducted. Lists of local experts with knowledge of developing

occupational standards should be maintained and regularly updated to keep track of experts from government agencies and companies.

Recommendation 2: Integrate occupational standards into the VET system

The value of occupational standards lies in their use by the education system and employers to create study programmes, as well as to guide assessments and certification. Occupational standards are part of an integrated VET system, providing the basis for education standards, outcome-based curricula, and assessment of qualifications (Figure 4.3). This second recommendation includes three actions: 1) put in place education standards and curricula based on occupational standards; 2) base assessments and certification on occupational standards; and 3) put in place a monitoring and enforcement mechanism to ensure that occupational standards, education programmes and certifications are aligned.

Figure 4.3. The link between occupational standards, curricula and assessment



Source: (Bosch and Spilioti, 2013[39]; Fretwell, Morgan and Deij, 2001[41]; Cedefop, 2009[42])

Action 4: Put in place education standards and curricula based on occupational standards

Despite their cost, competency-based curricula, which focus on outputs (what students learn to do) are gaining popularity the world over, because of their greater ability to respond to employer needs. For example, they are used in Australia, New Zealand and most European countries. Kazakhstan should create competency-based curricula based on occupational standards, which it can facilitate through education/training standards.

Education/training standards should contain information on outcomes and processes. For example, they can contain information about:

- learning content (such as the required learning activities)
- teachers (the required teaching methods and teacher qualifications)
- the assessment of achievement (methods to be used and evidence required)
- process (such as the duration of programmes and the desirable learning location or environment).

Even though the required teaching methods are set out, teachers should retain the freedom to implement their own initiatives and to teach additional aspects beyond the standards. It should be kept in mind that students might not be able to learn all competencies in the education institution, therefore education on site in a company or at least in a control room or maintenance shop is very important for teaching the use of work equipment. Kazakhstan is strongly encouraged to include credit-bearing segments of work-based learning in any VET programme to ensure alignment between occupational standards, curricula and industry needs.

The content and format of education standards vary from country to country; Kazakhstan should select a structure that suits its circumstances. The government should develop education/training standards through stakeholder working groups, interviews and questionnaires with employers and employees, and visits to companies.

Employers and education institutions should then create study programmes based on the guidelines provided by such standards and involve awarding bodies (organisations that award qualifications) from the beginning of the process. While some organisations that develop education/training standards also develop curricula, the co-ordinating institution should delegate this time-consuming task to a different organisation or at least a different department. Due note must be given here to the training of teachers, to ensure that they can deliver training programmes of good quality.

Action 5: Base assessments and certification on occupational standards

Kazakhstan should base its assessment tools for graduates on occupational standards (competency-based assessment). This means that in addition to education/ training standards, it should use assessment standards to test what people are able to do in their occupations, including knowledge, skills and performance. In most European countries, for example, qualifications (diplomas) are based on three types of standards: occupational/professional standards, education/training standards and assessment standards.

The assessment of a given occupational standard must clearly test the demand that the occupational standard places on the future employee. The competences that students have gained outside of an academic course should also be assessed. Assessment standards should also be used to recognise competencies gained on the job, to up-skill and re-skill the current workforce. The assessment standards can include knowledge tests in written or oral format, as well as observation of work performance (UNESCO-UNEVOC, 2006[43]).

While assessment standards will usually be written by the same organisation that developed the occupational standards, e.g. a sector skills body, they also require pedagogical and industry input. As a minimum, they should be developed together with the stakeholders who helped to write the initial occupational standards. It is advisable that assessment instruments and bodies be run by private companies. They will need both

trained assessors and verification personnel (who verify that assessors themselves are performing well; most of them are former assessors themselves), who could be both internal and external to companies. The government and/or the assessment companies must adequately train staff to conduct assessments properly, and share the assessment requirements with students and trainers. Particular attention should be paid to standardising the assessments across the country, including assessment conditions (e.g. working environment for the practical aspect). Additionally, care must be taken to avoid redundant assessment layers.

Action 6: Put in place a monitoring and enforcement mechanism to ensure that occupational standards, education programmes, assessments and certifications are aligned

Once the framework for qualifications and certification is in place, Kazakhstan should establish a monitoring and enforcement mechanism. It should task qualified inspectors to visit training institutions and evaluate the adherence of study programmes and assessment instruments to the developed occupational standards (see Box 4.3 for an example from France). In Kazakhstan, this could be the role of a skills council.

Box 4.3. France's system for monitoring qualifications

The system of inspection in France consists of two levels:

- Inspectorate General for National Education (IGEN - *Inspection Générale de l'Education Nationale*). This organisation is responsible for monitoring, studying and assessing the education system's operation and effectiveness. Its evaluations focus particularly on the types of training, programmes, teaching content, teaching methods, procedures and resources implemented. It also assesses management, teaching and inspectorate staff, as well as taking part in evaluation missions alongside other departmental, regional education authorities and international bodies. The general inspectorate is also in charge of a specific body called CERPEP, which helps to enhance links between teachers and companies, especially by organising internships for teachers in private or public companies in France and elsewhere in Europe. These internships help teachers to better understand the specific needs of the sector, and to be aware of any changes in technology.
- Regional inspectorates. The regional inspectorates are assigned to specific territories, and the inspectors are state officials. They are under the authority of their area's Chief Education Officer and work in liaison with the Inspectorate General. Among other things, they assess teaching content, teachers and schools. In the specific field of VET, they are also in charge of organising and monitoring examinations, and can lead or participate, at national level, in the groups of experts (from education and sectors) in charge of designing qualifications. They are also in charge of disseminating information about sector needs and changes in the qualifications of their field of expertise.

Source: OECD Analysis.

Recommendation 3: Raise awareness of the value, process and application of occupational standards in a well-functioning VET system

The creation and application of economically effective occupational standards depends heavily on input from key stakeholders. Employers are the main participants in the creation of standards and must be aware of the procedure, as well as their expected role. Similarly, education institutions must be aware of the existing standards and the process for applying them to their education programmes and assessments. Thus, it is recommended that the government regularly conduct training and seminars on the concept, methodology and the role of all stakeholders.

Action 7: Conduct regular training and seminars on the concepts, methodology and the roles of all stakeholders

The institution in charge of occupational standards should conduct regular training in the concepts; the methodology it expects companies to use; their integration into curricula, assessments and certification; and the role of various counterparts in the process. The training should be targeted at government officials, employers and actors in the education sphere who design curricula, assess student performance and award qualifications. The government should intensify its efforts to reach out to the regions and private companies. International experts in the subject should be invited to these seminars, especially at the beginning of the process. Training should include workshops and other participative forums for developing the actual draft occupational standards.

Importantly, the benefits of occupational standards should be clearly communicated to stakeholders to encourage them to participate in creating and applying them. For example, employers should be informed about the occupational standards' positive impact on productivity, the quality of products, cost savings, new work processes, new technology adoption and innovation.

As it can take several years for a national structure of occupational standards to have an impact on education and employment, it is important that a sense of urgency is communicated during the training and seminars.

The government should also conduct similar training on competency-based curricula which are based on occupational standards, because they are likely to involve new ways of teaching and learning.

The way forward

Successful implementation of the policy recommendations will depend on the following factors:

- **Continuous consultation with all relevant VET stakeholders**. The government should consult with the users of occupational standards – employers – in creating the standards. It should also consult with education institutions to determine the applicability of occupational standards in education curricula, assessments and the certification of qualifications. This is crucial for ensuring the relevance and application of the occupational standards. A first helpful step might be to develop a matrix showing the roles of all the actors involved (Bosch and Spilioti, 2013[39]).
- **Policies based on accurate statistics and evidence-based analysis of the VET system**. Any decisions to create or modify occupational standards should be

based on statistics and analysis of the need for qualifications, drawn from labour market analysis and employer feedback.

- **Policy design and implementation that draws from international and existing domestic experience**. The government should follow international good practice in creating and applying occupational standards. While relatively new in the post-Soviet economies, occupational standards have a longer history in European education systems and in other countries such as Australia and Canada. Kazakhstan can also draw from domestic experience in developing occupational standards for other sectors, such as oil and gas, and tourism.
- **Effective monitoring and evaluation.** Kazakhstan should continuously monitor its occupational standards and their use to see if they are easy to understand and apply and if there is a need for additional standards. To be cost effective, only useful occupational standards should be kept; too many standards should be avoided. The government should also keep track of the quality of the entire VET system, including stakeholder involvement, the rate of VET trainee employment after completion of training etc. (Bosch and Spilioti, 2013[39]).
- **Strong leadership**. The development and application of occupational standards requires strong government leadership, as well as leadership of sector associations. It is also useful to have a pioneer company in petrochemistry or chemistry that is firmly committed to the issue to promote occupational standards and rally other companies in the sector.
- **Well-sequenced changes**. It is important to keep in mind that other aspects of the VET system must be improved in order to ensure that occupational standards have a lasting effect. Improvements are needed to the quality of infrastructure, teaching and work-based learning; as well as to forecasting skills needs, independent assessment, statistics on skills, and the assessment of government activity. Additional recommendations for improving the VET system in Kazakhstan can be found in the OECD publication *OECD Reviews of Vocational Education and Training, A Skills beyond School Review of Kazakhstan*.
- **Piloted change**. Kazakhstan is encouraged to run a pilot scheme for developing occupational standards to attempt to satisfy some urgent industry needs before the structures and processes are fully developed. This pilot scheme could focus strategically on the most needed skills and levels. For this, a clear understanding of skills requirements is necessary.

Table 4.2 presents a roadmap for policy implementation, including the expected timeframe for each of the individual policy actions.

Table 4.2. Suggested implementation roadmap for Kazakhstan

Recommendations	Indicative implementation timing		
	Short term < 1 year	Medium term 1-3 years	Long term > 3 years
Recommendation: Put in place a domestic institutional structure to enable OS to support a well-functioning VET system			
Action 1: Assign an institution for creating and updating standards.			
Action 2: Develop mechanism for public-private dialogue.			
Action 3: Foster national expertise in developing occupational standards.			
Recommendation: Integrate occupational standards into the VET system			
Action 4: Put in place education standards and curricula based on occupational standards.			
Action 5: Base assessments and certification on occupational standards.			
Action 6: Put in place a monitoring and enforcement mechanism to ensure that occupational standards, education programmes, assessments and certifications are aligned.			
Recommendation: Raise awareness about the value, process and application of OS to support a well-functioning VET system			
Action 7: Regularly conduct training and seminars on the concepts, methodology and the role of all involved stakeholders.			

Kyrgyzstan: Implementing workplace training

Skills gaps are a major concern for firms in Kyrgyzstan. In 2013, the OECD designed recommendations to improve human capital for businesses in the country, focusing on the development of workplace training activities. Three years later, the OECD monitored the implementation of these recommendations, and provided new insights into how to further support the use of workplace training in Kyrgyzstan, such as creating formal requirements for internship agreements, further expanding career centres in vocational education and training (VET) institutions, and establishing online job platforms.

Context: Skills gaps in Kyrgyzstan's workforce

In 2013, limited human capital development was identified as an important constraint on Kyrgyzstan's competitiveness, especially in agribusiness. Skills gaps – disparities between the skills of the existing workforce and the needs of employers – were negatively affecting labour productivity. For example, labour productivity in agriculture was the second lowest in the region, at USD 1 414 per worker in 2013, equivalent to only 8% of the average for OECD countries due to several factors, including limited skills and lack of machinery (World Bank, 2016[44]). Agricultural sector employers surveyed by the OECD mentioned employees' lack of skills and training as one of the top barriers to their activities (OECD, 2014[45]).

Skills gaps were widened by the limited involvement of private companies in human capital development, in particular in workplace training. Partnership agreements signed between educational institutions and private companies appeared to be limited to a few cases – such as several Bishkek vocational schools in the fields of transportation, telecommunications, and garment manufacture. The 2013 OECD survey showed that less than one-quarter of employers in agribusiness processing were working with educational institutions, and only 24% were providing students with workplace training, apprenticeships, internships and mentoring (OECD, 2014[45]).

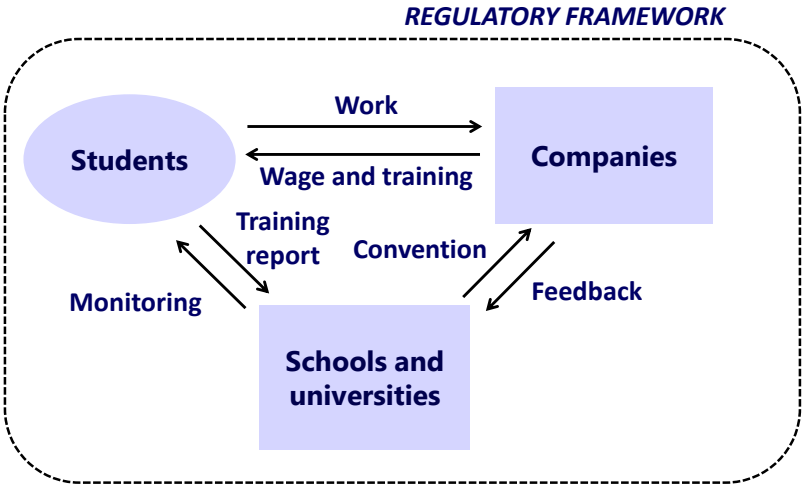
Policy recommendations were prepared in 2013 and are outlined below.

This note was developed in consultation with the Government of Kyrgyzstan, private sector companies, business associations, and development partners during the monitoring process. It assesses the implementation progress made in the last three years, and makes recommendations for further progress.

Overview of 2013 recommendations

The 2013 review concluded that the government could bridge the skills gap through workplace training and raising the overall involvement of the private sector in vocational education and training (VET). Workplace training, such as internships and apprenticeships, teaches students the practical skills demanded by the labour market. It can "help close the skill gap by facilitating students' access to modern technology and to the latest innovations in the industry and accelerating the transfer of knowledge between the educational system and firms" (OECD, 2014[45]). It can also provide employers with a properly trained labour force, help them promote employment in the sector and improve their interactions with educational institutions. Workplace training programmes build tripartite relationships among the employer, the student and the education institution, based on formal and contractual links (Figure 4.4).

Figure 4.4. Workplace training programmes



Source: Adapted from (OECD, 2012b[46])

Recommendation 1: Put in place a regulatory and incentives framework for workplace training

The Labour Code regulates training and retraining of staff, including workplace training. The 2013 review recommended measures to enhance the regulatory framework and define the legal boundaries for all parties involved, in particular by setting up a minimum wage for interns and apprentices, establishing duration requirements of training, and considering the inclusion of financial incentives to encourage employers to offer workplace training, such as tax incentives and exemptions from contributions to the social fund.

It also suggested that the government could further strengthen the legal framework by establishing formal tripartite conventions that define the responsibilities and duties among the employer, the student and the education institution. These conventions could include information on the duration of the internship, missions assigned to the intern, competences to be developed through the internship, compensation, code of conduct, insurance and termination of the internship.

Recommendation 2: Increase private sector involvement in workplace training

Co-operation between employers and educational institutions on workplace training programmes is crucial for their success. However, the 2013 review concluded that this co-operation could be expanded beyond the limited bilateral partnerships common at the time by engaging students, companies, and educational institutions alike. This would create a greater sense of ownership of the programmes by engaging all parties in sustainable and formal co-operation. Business associations could also play a key role in collecting business needs, structuring the activities and contributions of business, and mobilising them.

Employers' involvement could be stimulated by providing internships on a competitive basis to ensure that the most motivated and qualified students are selected.

Kyrgyzstan had established public-private skills councils at the national level through the National Council for Professional Skills Development, and at sector level through sector sub-councils, including in agriculture. However, the review recommended that these exchange platforms be revitalised to ensure an on-going dialogue on public-private co-operation in education among employers, business associations, education institutions, and the ministries of education and labour. Discussions could address topics such as skill requirements and forecasts, workplace training activities, private involvement in education and possible public-private partnerships (OECD, 2014[45]).

Recommendation 3: Improve matching of students with training places, including in agribusiness

The review advised the government to establish a national job portal that would help match students and companies, and promote the image of specific sectors and career paths (OECD, 2014[45]).This electronic platform would bring together available job offers, and provide information on career paths and training opportunities in educational institutions.

To strengthen and formalise co-operation with employers, the review suggested that education institutions could also establish career centres as points of contact between students and employers. They could be in charge of reaching out to businesses and co-ordinating activities with them, including creating and following up on workplace training programmes. For example, the education institutions could implement a monitoring system for internships by occasionally visiting and interviewing employers during the internship period. At the end of a workplace training programme, firms could prepare a feedback report for the student and the education institution. This would not only act as a formal certificate, but would also outline the competencies developed by the student and how his/her skills match the companies' needs. This feedback would guide schools on adjusting curricula, while helping the student upgrade skills to match work opportunities.

In 2013, companies were paying income tax and social contributions on the wages of interns and vocational trainees. The review recommended that the government consider exempting internships and apprenticeships from tax and social charges to give them additional incentives to take on interns (OECD, 2014[45]).

2016 monitoring assessment

The government has conducted a number of important reforms in line with the 2013 policy recommendations, particularly to the regulatory framework. These reforms have been implemented with the involvement of business associations through the Chamber of Commerce and Industry.

Monitoring of Recommendation 1 underscores new draft regulations for workplace training

Recommendation 1: Put in place a regulatory and incentives framework for workplace training

The Government of Kyrgyzstan has drafted amendments to the Labour Code to develop workplace training activities. The policy process has been broadly consultative, involving private companies through the Chamber of Commerce and Industry, and the public by posting the draft law on the Internet for comments.

The amendments emphasise the principle of promoting both the interests of students and companies. Their objectives are to improve skills matches for the benefit of employees and employers; to encourage companies to use workplace training activities; and ultimately to provide jobs and employment. Another objective is to reduce the high rate of emigration driven by high unemployment, although other factors – such as low salaries – are also to blame (Government of Kyrgyzstan, 2016[47]).

The draft amendments make a clearer distinction between vocational training contracts (on-the-job and formal training for current employees) and student internships/apprenticeships that was not explicit in the previous version of the Labour Code's articles. They define the expected content of student contracts (for internships and apprenticeships) and introduce training contracts (including retraining for existing employees). These will help to facilitate arrangements between employers, employees and students, and to standardise contractual practices. The contract should include the names of the parties, the student's/employee's specialities, the employer's and the student's/employee's obligations, and the training period. The training contract should specify the employee's conditions and pay during the training. Changes to the contract can only be made with the agreement of both parties (Government of Kyrgyzstan, 2016[47]).

However, the amendments to the Labour Code do not establish a mechanism governing the relations among the employer, the student and the education institution during an internship. Many details are left out of the contract, and are subject to an agreement between the parties, including financial matters, such as payment or reimbursement of expenses, and the detailed organisation of the training period.

The draft amendments set an upper limit of 12 months for the duration of internships and apprenticeships. This can help avoid the abuse of internships as positions of permanent employment by employers. This upper limit is in line with laws in France (6 months), Germany and Italy (12 months), which include restrictions on renewing the internship contract (OECD, 2014[45]).

The updated Labour Code also proposes introducing mandatory compensation and a salary cap for interns. Mandatory compensation is a welcome addition, as it avoids companies benefiting from unpaid labour. Such measures are in line with several OECD countries, such as France and Germany, although legislation in OECD countries typically provides for a minimum compensation level instead of a maximum (OECD, 2014[45]).This salary cap might help contain the tax exemptions and insurance premiums stipulated in the draft Tax Code (see below). In Switzerland, the average salary of an apprentice is

around 25% to 30% of a permanent employee's salary according to the Swiss Federal Institute for Vocational Education and Training (SFIVET).

The drafting process has now been transferred from the Ministry of Economy to the Parliament's Commission on Social Issues. Although this might lead to substantial revisions to the next versions of the draft amendments, it shows that the process is moving forward.

Monitoring of Recommendation 2 highlights greater private stakeholder participation

Recommendation 2: Increase private sector involvement in workplace training

The engagement of stakeholders in VET reforms and workplace training activities has increased since 2013, for instance with the development of several career centres. The strong involvement of the Chamber of Commerce and Industry in preparing the amendments to the Labour Code is a positive sign in this regard. Some higher education and VET institutions have also developed action plans for increasing business involvement and establishing boards of trustees, which aim to involve companies in the governance of educational institutions. However, these still need to be implemented in most educational institutions. A first step would be to assess these initial initiatives and to launch additional ones with government support. This could lay the foundations for a strong co-operation model in education in Kyrgyzstan.

The governance of the Kyrgyz education system involves meetings between educational institutions and companies through the National Business Council and sub-sector councils. The frequency of these meetings has increased in recent years, especially in the agribusiness sector according to interviews carried out by the OECD with the Agency of Vocational and Educational Training of Kyrgyzstan and local experts on education as part of the horizontal policy assessment (ADB, 2013[48]; OECD, 2016[49]). The Agency of VET of Kyrgyzstan also conducts regular consultations with employers. These efforts need to be sustained to improve the consultation with and involvement of the private sector in education when designing and implementing policy reforms to the education system.

However, a vibrant internship market has still not developed. Competitive recruitment processes for interns and apprenticeships remain rare and have only been reported in selected sectors, such as banking. This may reflect the lack of employers' interest and engagement in conducting proper recruitment processes and might foster adverse selection of students. Employers report that they lack incentives to hire interns, and need too much time to retrain them on the job. Agribusiness companies also point to the limited attractiveness of their sector to students and the small number of available qualified applicants as interns (OECD, 2016[49]).

Monitoring of Recommendation 3 finds that finding placements for students is being held back by insufficient instruments and incentives

Recommendation 3: Improve matching of students with training places, including in agribusiness

Kyrgyzstan is drafting amendments to the Tax Code to increase the incentives for companies to recruit interns and apprentices, and to promote the active participation of companies in workplace training. According to the draft amendments, companies would be exempt from paying taxes on income, social contributions, and insurance premiums on wages paid to interns/apprentices and vocational trainees. They could also deduct the cost of the preparation and implementation of training activities (Government of Kyrgyzstan, 2016[50]).

Instruments to match supply and demand among the private sector, students and education institutions are still insufficiently developed, including in agriculture. In OECD countries, career centres within educational institutions are useful contact points to build sustainable operational relations between students and companies, share internship opportunities, and seek more involvement from companies in teaching and training activities (OECD, 2016[49]). Although there have been some initiatives to set up career centres within educational institutions, job portals and fairs, for instance in the agricultural sector, these are fragmented and of limited scale and impact (Box 4.4).

Box 4.4. Matching of students with training centres in Kyrgyzstan

Several tertiary schools in Kyrgyzstan have established career centres to improve connections with companies. These include the Bishkek Academy of Finance and Economics, Talas State University, and the Academy of Public Administration under the President of the Kyrgyz Republic in Bishkek (OECD, 2016[51]).

Several job internship platforms have also been established, but with limited scope and number of applicants. These platforms aim to help match internship demand with offers by public and private stakeholders. For instance, the national internship programme organised by the Youth Foundation, Instream, in partnership with the Ministry of Education, has set up an electronic platform where applicants can submit internship requests (Instream, 2016[52]).

Fairs are organised periodically in Kyrgyzstan to promote markets and products in selected sectors, including agro-processing. Job fairs are also regularly held to promote training and retraining opportunities in the sector and involving education institutions. Their impact on hiring and on raising the interest of students in careers in sectors such as agriculture remains limited.

Source: (OECD, 2016[51]; Instream, 2016[52])

The way forward

The government needs to enact, implement and monitor the amendments to the labour and tax codes: this is a prerequisite for the development of workplace training activities in Kyrgyzstan. Further improvements can also be made to foster relations between all parties, including the introduction of an internship contract/agreement (see Box 4.5), the expansion of existing career centres, the enhancement of existing VET and skills councils, and the establishment of online job platforms.

Box 4.5. The *Convention de stage* in France

France established the *Convention de stage* to simplify and formalise internship relationships among students, companies and educational institutions. The *Convention de stage* is regulated by law, but remains flexible enough to be adapted to the various needs and conditions of internships. It governs the relations, rights and duties of students and companies during the course of the internship. It helps better define roles and responsibilities for all parties and enshrines them in a legal document to ensure that each party fulfils its obligations.

The French Ministry of Labour has published a template on its website to simplify procedures and minimise the administrative workload for businesses, while adequately protecting students. A typical *Convention de stage* includes information on registration at a university or school; signatories (the intern, a representative of the university and a representative of the firm); objectives (acquisition of competencies); activities of the intern; duration; compensation; management; accident labour protection; termination of the contract; code of conduct; and the requirement for an internship report. Three copies of the document are signed, one for each party.

Source: (Ministry of Labour, Employment, Vocational Training and Social Dialogue, 2016[53])

The government will submit the amendments to Parliament in 2016. Effective implementation will require careful monitoring of the impact on business and educational institutions' practices, and adjustments may be needed. Among the OECD countries, France has passed several amendments to its provisions for internships and professional training in the labour and education codes over recent years to avoid abuse by the parties involved. In the latest version (2014), the maximum duration of internships was reduced from 12 months to 6 months, the number of interns has been limited within each company, and students have been granted new rights concerning leave and expenses (Ministry of Labour, 2014[54]). Switzerland also has lessons to share on the duration and organisation of workplace training (Box 4.6).

Box 4.6. Public-private collaboration in education in Switzerland

In Switzerland, vocational education and training are based on the dual track system involving education institutions and employers, which is the country's central concept. "Dual" means part-time: 3.5-4 working days are spent by the apprentice at a host company, combined with 1-1.5 working days of classes at a public vocational school. Switzerland has also defined a template for apprenticeship contracts to ensure these contracts cover all the required conditions; they are signed by the three parties.

Employers and professional associations are engaged with and actively contribute to professional education. The Swiss Vocational and Professional Education and Training (FPVET) system is collectively managed as a public-private partnership. It works efficiently because on the one hand it is close to the needs of the economy and market-driven, and on the other it is given state recognition and quality control.

Three main partners play a specific role in the management and implementation of the VPET system (based on the Federal Act on Vocational and Professional Education and Training of 2002):

- The Confederation (federal government) is responsible for strategic planning and development of the entire system. It seeks to achieve comparability and transparency as well as national recognition of qualifications and encourages innovation.
- The cantons (state government) are mainly responsible for the overall supervision of VET programmes. They ensure the quality of work-based training and of classroom instruction, monitor examinations and ensure that apprenticeship contracts are in line with statutory provisions. Furthermore the cantons are responsible for general implementation. They run vocational schools, issue VET accreditation to host companies, provide young people and adults with vocational and career guidance counselling, and take responsibility for the training of instructors.
- The private sector is represented by trade and branch associations as well as their member companies and social partners (employer's unions and trade unions). These associations are mainly responsible for defining and continuously updating training content, with the involvement of representatives of the VET schools and cantons. Individual companies create apprenticeship positions and pay a salary to the apprentices. Companies need to have at least one professional instructor who meets the required professional skills and personal characteristics. Host companies must also obtain a permit from the local cantonal authority.

Building on a long tradition of vocational education and training, Swiss companies consider apprenticeships as beneficial for several reasons. First, the net profit generated by an apprentice exceeds the net expenditures in most professional branches due to the productive work of apprentices. Second, apprenticeships help companies make sure that they have the necessary number of employees with the required competencies, and reduce recruitment costs if the apprentice stays in the company. Third, they boost the reputation of the company, as Switzerland has implemented a specific and prestigious label for companies training apprentices. Finally, professional organisations have the possibility to create their own VPET fund to support workplace training.

Sources: (Strahm et al., 2016[55]; Fazekas and Field,(n.d.)[56])

A formal requirement for internship agreements could be introduced: this could further formalise internship relations, and build trust among companies, students and education institutions by strengthening mutual rights and obligations. The government could prepare a draft document to be discussed with employers, including the Chamber of Commerce and Industry, and publish it as a template for internships on the website of the Ministry of Labour and Social Protection (MLSP), mirroring practices in France, which has amended its Labour Code to introduce mandatory internship agreements (Box 4.5). The *Convention de stage* is a simple, flexible contract signed by the parties that regulates their relationships and specifies the objectives and the conditions of the internship. A formal requirement could also be applied for the interns' report after completing workplace training.

Beyond the establishment of internships, education institutions could prepare companies better: education institutions should conduct preparatory sessions for companies to explain the requirements, conditions and benefits of the internship as well as the expected role of the supervisor. This preparation could raise companies' awareness, increase the quality of the workplace training, and minimise bureaucracy for businesses. They should also provide support during the internship. In Switzerland, each company must have one employee trained in managing an internship/apprenticeship process and supervising interns before hiring an apprentice.

Promotional websites and events could be part of the education promotion and communications strategy in specific sectors, in addition to existing career fairs. The Ministry of Agriculture, in particular, could consider revitalising the sector's image by promoting career paths and opportunities in the sector in association with educational institutions and companies. This could include the creation of a dedicated website for agricultural education promotion and information (or at least a dedicated space on the ministry's existing website), presentations of and training by companies in VET institutions and schools, and active involvement of agricultural schools in education promotion and fairs.

Career centres in educational institutions need to be further expanded to become key contact points between businesses and the education system. Existing career centres should be assessed for the number of internships and jobs found by students and the number of companies met and partnerships signed. They should share good practices with similar teams in other education institutions and follow the principles described below for creating new ones. Where career centres do not exist, they could be created in most tertiary education institutions, replicating the example of several OECD countries. The assessment and adjustment of existing career centres would help build a model to be rolled out in education institutions. These centres could proactively investigate labour market opportunities and administer workplace training offers by liaising with companies, making these offers available to students, and monitoring the internship/apprenticeship period on behalf of the educational institution. Business and engineering schools in France have created career centres that are very active in matching students and training places through a wide range of activities, including online job and internship platforms, managing students' professional curricula, following-up on legal provisions, mentorship, communicating with companies, and organising career fairs.

Public-private dialogue on VET could be further supported through the National Council and the sub-sector councils: this will involve more regular meetings with precise agenda and the inclusive involvement of stakeholders. For example, in the United Kingdom, the UK Commission for Employment and Skills and Sector Skills Councils helps ministries

identify skills needs and solutions, create the conditions for increased investment in skills, and raise skill levels across the economy. These councils are industry-led and gather a limited number of members, including business leaders from large firms, SMEs, trade unions, central and local government representatives, non-governmental organisation, and education institutions (UK Commission for Employment and Skills, 2012[57]). Switzerland also offers a good example of close public-private collaboration in education. Education institutions, the government, and companies partner to run the VET system, including workplace-training activities (Box 4.6).

Online job platforms are useful tools to match students and employers. Existing platforms could be further supported by the MLSP. In addition, dedicated sections on existing websites, such as the official sites of the Agency of Primary and Secondary Vocational Education and the MSLP, could be used to display job offers. This would be cheaper than creating and maintaining new job platforms. Until these platforms are implemented, educational institutions need to use pin-boards and so on to display offers for students. They could also use youth centres and other local information centres to disseminate job and internship offers. A good model is the platform established by the French Ministry of Agriculture (Box 4.7).

Box 4.7. Promoting agricultural education in France

The French Ministry of Agriculture promotes and provides information on agricultural education on a dedicated platform (www.educagri.fr). Students and young workers can find all information on education institutions, training paths, degrees, certification and internships on the website.

The ministry also organises career fairs to bring together companies and job seekers as well as educational institutions, who can promote their training and retraining offers to employers and job seekers). This includes annual "open door" days in all agricultural education institutions in France.

Source: (Ministry of Agriculture, Food and Forests of France, 2016[58])

Since the 2013 recommendations, it has appeared that incentives and promotion actions for employers need to be increased. Companies cited the insufficient initial, formal training of students as the main reason for their limited interest in internships and apprenticeships. Awareness could be raised on the new amendments and incentives: informing companies of the new tax and financial incentives for their hiring of interns and apprentices might promote greater uptake of this effective m150eans to train this upcoming branch of the labour force. This may also call for increasing companies' involvement in educational institutions, for instance, by inviting them to schools to give lectures, training, company presentations and regular meetings with directors, teaching staff and career advisers of the institution. Kyrgyzstan could also study Switzerland's instruments (Box 4.6) and consider implementing some of them to promote the use and benefits of workplace training to employers.

Notes

[1] The percentage of firms identifying an inadequately educated workforce as a major constraint is described as the percentage of firms identifying labour skill level as a major constraint to the current operations of the establishment in the World Bank's *Enterprise Surveys Indicator Descriptions*.

[2] This chapter will not assess the VET system as a whole, but focuses on the key instruments that involve SMEs and the private sector at large, and examines selected VET instruments useful for SMEs. Assessing and redesigning the whole VET system would also involve examining additional characteristics and instruments that are beyond the scope of this report, such as decision-making mechanisms on provision and meeting needs, avenues of progression from initial VET to both higher-level vocational and academic programmes, the vocational teaching workforce, and funding arrangements.

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