



TORINO PROCESS 2018-20

National summary report

RUSSIA

Disclaimer

Russian Federation - national Torino Process summary report (NRF)

This report is prepared in the framework of the Torino Process 2018-20 by the relevant national authorities. The contents of this paper do not necessarily reflect the views of the ETF or the EU institutions.

PREAMBLE

This summary report is based on information, evidence and data collected through the Torino Process and the drafting of the national report. It was carried out 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 country report have been shared and discussed with national authorities and key stakeholders.

The aim of this report is to provide a summary of the country's vocational education and training (VET) issues and VET policy responses as described and analysed in the full country report, and, where possible, considering the lifelong learning perspective within the human capital development dimension.

This summary report starts with a brief description of Russia's strategic plans and national policy priorities, including a scheme of the education and training system (Chapter 1). Chapter 2 presents an overview of issues relating to VET development in the country and Chapter 3 describes the implementation of VET policy. Chapter 4 describes the situation in three regions of the country, Chapter 5 provides the overall recommendations and Chapter 6 presents the conclusions.

The annexes provide additional information about development and challenges on three specific thematic areas considered relevant for the country.

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INTRODUCTION

Compared to the situation described in the previous report (2016–2017), Russia's VET system has continued to evolve in a challenging foreign policy environment and the resulting unstable socioeconomic context. As before, current developments in the VET system are coordinated with government policies aimed at import replacement, that is, efforts to replace imports with domestically produced goods. Modernisation of the national qualifications system continues, as does the formation of an expert community at regional level. Since the 2016 national report, digitisation has been an important new policy area for the country's socioeconomic development. The Digital Economy in the Russian Federation programme approved by the government in 2017 contains a subprogramme on human resources for the digital economy. The programme is designed to improve conditions for the country's competitiveness, the well-being of its people, its economic growth and its national sovereignty.

The implementation of the Package of Measures to Improve the Secondary VET System in 2015–2020 (Government Order No. 349-r of 3 March 2015) is nearing completion.

The Education National Project builds on the results of these efforts.

The government places a strong emphasis on offering vocational training (continuing training and retraining) to citizens of pre-retirement age (60–65 for men and 55–60 for women), following the adoption in 2018 of a federal law on pensions that envisions a gradual increase of retirement age over the period to 2034.

For the second time in 2019, a series of regional (subnational dimension) reports have been prepared which generally confirm the key trends in the development of the country's VET system.

1. VET OVERVIEW

The structure of the VET system in Russia is set out in the Federal Law on Education in the Russian Federation (No. 273 of 29 December 2012). This level of education includes the following programmes:

- skilled worker or employee training programmes (SWETPs): admission is based on at least 9 years of general school (students aged 15 and above; duration of VET is 2 years and 10 months); International Standard Classification of Education (ISCED): post-secondary non-tertiary education;
- middle-level professional training programmes (MLTPs); admission is based on either 9 years of basic general school (students aged 15 and above; duration of VET is 3 years and 10 months) or 11 years of secondary general school (students aged 17 and above; duration of VET is 2 years and 10 months); ISCED: short-cycle tertiary education.

Continuing VET (CVET) is delivered via two types of programme:

- VET programmes, including vocational training, continuing vocational training and retraining programmes in worker and employee occupations; these are available to individuals of various ages and do not change their level of education;

- CVET (professional development, retraining) programmes requiring at least prior secondary VET (SVET); these are accessible to individuals aged around 20, but typical student ages range from 30 to 40.

SVET programmes are implemented in institutes of higher education, technical schools and colleges. Vocational training programmes and supplementary vocational training programmes are also implemented in technical schools, colleges and institutes of higher education. Since 2012, multifunctional centres for professional qualifications (equivalent to the European competence centres) have emerged to expand the number of such programmes available. In 2016, 7 inter-regional competence centres were set up, and work is under way to create 100 centres for anticipatory vocational training (CAVTs) by 2024.

The legislative framework for VET includes:

- Federal Law on Education in the Russian Federation;
- State Programme for Education Development in 2013–2020;
- State Programme for Education Development in 2018–2025;
- Presidential Decree No. 204 of 7 May 2018 on the national goals and strategic objectives of the development of the Russian Federation in the period until 2024;
- Presidential Decree No. 596 of 7 May 2012 on the state's long-term economic policy;
- Presidential Decree No. 597 of 7 May 2012 on measures to implement the state's social policy;
- Presidential Decree No. 599 of 7 May 2012 on measures to implement the state's policy on education and science;
- Government Decree No. 317 of 18 April 2016 on the implementation of the national technology initiative;
- Concept of long-term socioeconomic development in the Russian Federation until 2020.

The pertinent secondary legislation includes executive orders and directives adopted by the Ministry of Education and Science (since 2018, the Ministry of Education) to ensure the implementation of the Federal Law on Education in the Russian Federation, and the federal state educational standards (FSESs) for SVET.

Matters such as the continuing training of workers, and support for the education and supplementary training of labour migrants, individuals of retirement and pre-retirement age, women on maternity leave and other vulnerable populations are regulated by policy documents issued by the Russian Ministry of Labour and Social Protection.

Russia has adopted a national qualifications framework that defines the qualification levels to be used in designing occupational standards. This document describes the main pathways to attaining each qualification level, taking into account the types of VET programme available under the Federal Law on Education in the Russian Federation. On 3 July 2016 the Federal Law on Independent Evaluation of Qualifications No. 238 was adopted. In October 2018 the National Presidential Council approved the Action Plan (Roadmap) for the development of the national qualifications system in the Russian Federation by 2024.

In 2018, by a Presidential Decree¹, the Russian Ministry of Education and Science was divided and transformed into the Ministry of Education and the Ministry of Science and Higher Education. The

¹ Presidential Decree of 15 May 2018 No. 215 on the Structure of the Federal Executive Authorities.

responsibilities of the Ministry of Education include policy-making and implementation, and normative regulation in VET, as well as general education, supplementary education of children and adults, care and guardianship of minors, and social support and welfare of students. The Federal Service for Supervision in Education and Science is responsible for monitoring VET for compliance and effectiveness.

In Russia the VET system belongs mainly at the subnational (regional) level. The federal authorities are responsible for strategic governance of the entire VET system, while the regional authorities are in charge of VET development in their region. In addition, some 20 federal executive authorities (federal ministries) manage their own affiliated colleges and institutions of higher education, which offer VET programmes in fields such as healthcare, culture, sports and transport. As for local authorities, the VET system is outside their mandate, and their involvement is therefore minimal. Non-state actors, such as employers, experts and labour unions, perform mainly advisory and consultative functions.

Education providers are authorised to spend funds received from the public budget on educational programmes corresponding to targets set by the government. Providers are free to spend extra-budgetary funds at their discretion and do not need the founder's approval for that.

Shaping and approving the curriculum is the providers' responsibility. In shaping the curriculum, providers must comply with FSEs, model educational programmes and occupational standards. FSEs establish requirements for programme outcomes, such as graduates' general and professional competences. They also specify 70–80% of the content of education, while the remaining 20–30% is formulated jointly by the VET provider and employers.

Basic statistics on VET are presented in Tables 1, 2, 3, and 4 below.

TABLE 1. EDUCATION PROVIDERS OFFERING VET PROGRAMMES IN 2018/19

	Total	Public and municipal	Private
VET providers	3 311	2 967	344
Separate subdivisions (branches) of VET providers	609	536	73
Institutes of higher education	348	289	59
Separate subdivisions (branches) of institutes of higher education	443	383	60

SOURCE: N.V. BONDARENKO, L.M. GOKHBERG, N.V. KOVALEVA, 2019.

TABLE 2. VET STUDENTS IN SVET PROGRAMMES AT THE START OF THE SCHOOL YEAR (THOUSANDS)

VET levels	2015	2016	2017	2018
SWETP	622.7*	547.6	543.2	542.1
MLSTP	2 180.2	2 334.2	2 387.7	2 464.3

Note: *data as at the end of the calendar year.

SOURCE: COMPILED BY THE REPORT AUTHORS BASED ON N.V. BONDARENKO, L.M. GOKHBERG, N.V. KOVALEVA, 2019.

TABLE 3. COVERAGE OF 15–19-YEAR-OLDS BY VET PROGRAMME (NUMBER OF STUDENTS IN VET TO TOTAL AGE GROUP, %)

	2013	2014	2015	2016
SWETP				
Total	17.7	16.6	15.4	13.6
Men	22.7	21.8	20.4	18.2
Women	12.5	11.3	10.3	8.7
MLSTP				
Total	28.5	30.8	32.4	34.5
Men	28.6	30.4	31.7	33.8
Women	28.5	31.2	33.1	35.1

SOURCE: COMPILED BY THE REPORT AUTHORS BASED ON N.V. BONDARENKO, L.M. GOKHBERG, N.V. KOVALEVA, 2019.

TABLE 4. EMPLOYEES IN EDUCATION PROVIDERS OFFERING VET PROGRAMMES IN 2016/17

	Total	Public and municipal providers	Private providers
Total	437 593	421 372	16 221
Administrators	29 890	28 343	1 547
Teachers	226 638	216 408	10 230
Teaching support staff	43 813	42 229	1 584
Service staff	136 861	134 001	2 860

SOURCE: COMPILED BY THE REPORT AUTHORS BASED ON N.V. BONDARENKO, L.M. GOKHBERG, N.V. KOVALEVA, 2019.

Russia has adopted a programme- and project-based approach to governance. VET is included as a separate section in the national strategic planning documents. The key areas of the government's activity and the Consolidated Plan for the achievement of national development goals in the period before 2024 have been approved². These strategic plans are implemented through state programmes and national projects.

The State Programme for Education Development in 2018–2025 (SPED) is implemented using project management mechanisms. In 2018 the Ministry of Education worked to integrate the federal projects implemented as part of the Education National Project with the SPED. The goals of SPED concern education quality, access to education and online education, with specific performance targets for each year.

Current efforts to promote VET are defined in the Package of Measures to Improve the Secondary VET System in 2015–2020 (Government Order No. 349-p of 3 March 2015). Priority policy areas for VET are:

1. to ensure that graduates' qualifications address the current economic demand;
2. to consolidate the resources of business, government and VET providers in developing the SVET system;
3. to monitor the quality of VET;
4. to facilitate access to SVET for individuals with special health needs (SHN).

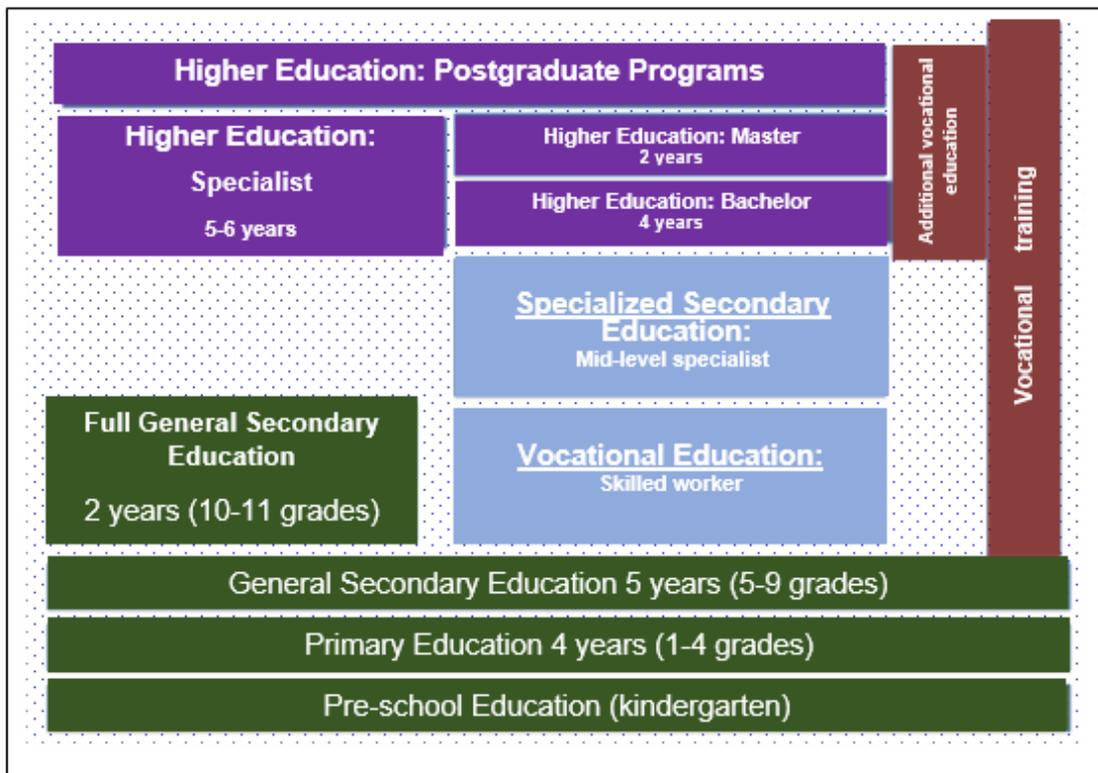
² Comprehensive plan for achieving the national development goals of the Russian Federation for the period up to 2024. Source: <http://government.ru/news/36606/>

The Education National Project was launched in 2019 and will continue until 2024. Led by the Ministry of Education, the project also involves the Ministry of Science and Higher Education, the Federal Service for Supervision in Education and Science (Rosobrnadzor), the Federal Agency for Youth Affairs (Rosmolodezh), other federal executive authorities, regional executive authorities and institutional stakeholders. The project has the following objectives relating to VET:

- modernising VET, in particular by introducing adaptive, practice-oriented and flexible educational programmes;
- building an effective system to identify, support and promote the talents and abilities of children and young people, based on the principles of fairness and universality and promoting self-determination and career guidance for all students;
- creating, by 2024, an advanced and safe environment for digital education to ensure the quality and accessibility of education of all types and levels.

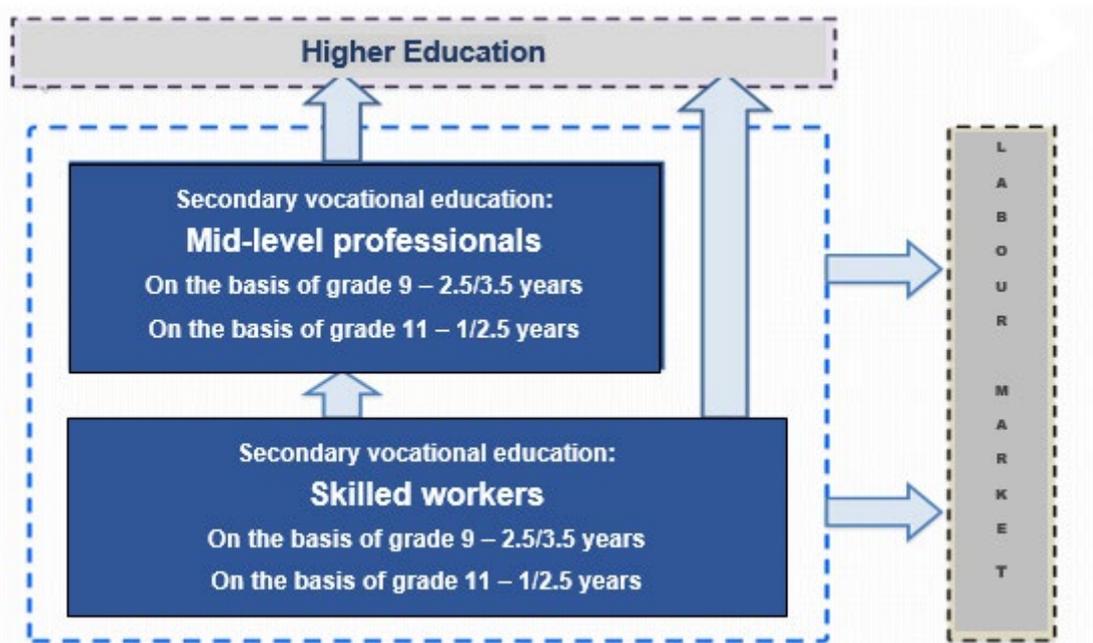
Figure 1 shows the education system in Russia.

FIGURE 1. EDUCATION SYSTEM IN THE RUSSIAN FEDERATION



The relationship between VET and other levels of education in the formal education system is shown in Figure 2.

FIGURE 2. RELATIONSHIP BETWEEN VET AND OTHER LEVELS OF EDUCATION IN THE FORMAL EDUCATION SYSTEM



2. VET POLICY DEVELOPMENT

The Education National Project currently serves as the main instrument supporting the development of the VET system. In line with the National Project's priorities, work is under way to update the lists of SVET occupations and specialisations, CAVTs are being created to serve as growth points for regional VET systems, and funds have been allocated for upgrading the VET physical infrastructure.

It is possible to build additional capacity in regional VET systems by removing certain restrictions in the budget legislation. This legislation currently requires that educational programmes must be financed from the budget of the region in which they are located; financing them from the funds of other regions or from federal funds is not allowed. Therefore, education providers cannot diversify their funding sources, and regions must make do with their own resources. Chronic underfunding is the biggest challenge for the VET system.

The current governance arrangements also create barriers to further development and reform of the VET system. The Ministry of Education is responsible for making regulations and implementing the national policy for VET, while the Agency for Strategic Initiatives (ASI) and the Union of Young Professionals (WorldSkills Russia) provide expertise, pilot new projects and test new approaches, for example to final attestation, among others. However, the multitude of diverse governance decisions, which are not always well-coordinated, often leave education providers confused and disoriented.

Another important issue for VET providers is the pressure from various supervisory authorities acting to enforce a large number of regulations issued by different government departments. Surveys of VET

principals reveal that in some regions, numerous audits and inspections divert provider resources and time from current and strategic activities.

One important policy implementation instrument is the Young Professionals Federal Project, which facilitates collaboration between the Ministry of Education and the regional authorities in promoting the development of regional VET systems. The project includes steps to update the list of VET occupations and specialisations trained in the system.

Efforts to match the content of VET FSESs and model VET programmes based on these standards with relevant occupational skills are coordinated by the Ministry of Education and relevant regional educational authorities. A number of projects are under way involving various federal and regional organisations and authorities (e.g. projects to set up CAVTs and to promote the WorldSkills Russia movement).

The Federal Service for Supervision in Education and Science (Rosobrnadzor) is responsible for monitoring programme and provider compliance with applicable standards. In 2018 its status was raised, and Rosobrnadzor now reports directly to the government.

At regional level, regional education authorities are mandated to participate in VET policy and management. These are usually regional ministries or departments of education subordinate to the respective regional government. The regional authorities approve a budget for the VET system, determine the types of occupations that need to be trained for the region, appoint VET school principals, etc.

VET providers enjoy a high level of autonomy. In public VET providers, institutional governance and policy-making are the functions of the director and a collective body of staff working in the VET institution. Some providers also have supervisory boards or trustees involved in governance and policy-making. In private VET institutions, the board, which usually consists of the institution's owners, also performs these functions. It is important to note that by law, VET providers must have their development programmes endorsed by the founder.

Shaping the curriculum is also the providers' responsibility. In this, providers must comply with FSESs, which cover occupational standards. FSESs establish requirements for programme outcomes, such as graduates' general and professional competences. They also specify 70–80% of the content of education, while the remaining 20–30% is formulated jointly by the VET provider and employers.

Governance in the VET system is led predominantly by the government. As a result, on the one hand, VET providers are agents of the government's policies, but on the other hand, they are not always responsive to the needs of employers, student families and other stakeholders who do not have a legally defined role in decision-making concerning VET. In addition to this, since the provision of VET has been devolved to regional level and no effective channels of inter-regional engagement are available, there is little cooperation between VET providers across regions.

The WorldSkills Russia movement, founded by the authorities, has been particularly active in governance and policy-making in VET. Meetings and round table discussions are conducted from time to time between officials of the Ministry of Education and other ministries and representatives of Russia's largest companies and research institutions. Advisory councils, commissions and regional project offices, which include representatives of employers' associations, education institutions, experts and researchers, have been set up to advise the Russian president, the Ministry of Education

and the regional education authorities and to contribute to the development and implementation of education policies.

Modernisation of the national qualifications system has led to the establishment of important governance structures, such as the National Presidential Council on Vocational Qualifications, active since 2014, and emerging sectoral councils on vocational qualifications. The main role of these organisations is to make the VET system responsive to labour market requirements by drafting occupational standards and having them accepted, by contributing to the discussion of educational standards and by conducting independent assessments of qualifications. In 2016–2017 the independent assessment system was evolving rapidly: by the end of 2017 the first 5 700 applicants passed professional tests at the Qualification Assessment Centres, and 5 300 of them received qualification certificates.

Policy- and decision-making in VET is led by the Ministry of Education and by relevant executive authorities in Russian regions. It also involves employers' associations, industry, and professional communities. Members of the expert community participate in the discussion and adoption of VET development strategies and programmes and of FSESSs. They propose changes to the current inventories of occupations and specialisations. They also participate in the joint implementation of specific activities within the framework of federal projects.

Overall, the distribution of functions and responsibilities for the development and implementation of VET policies between state and non-state actors is clearly biased in favour of the state. This is logical, since the government bears most of the costs of financing the VET system. While this distribution of responsibilities is understood by the parties involved, the arrangement is not always transparent and sometimes lacks clear criteria for the participation of non-state actors in specific projects and processes. As already mentioned, the role of non-state actors largely consists of providing advice and expertise on policy-making, while their direct contribution to VET policy implementation is low.

A number of federal and regional programmes are ongoing in Russia aimed at promoting entrepreneurial skills in young people and providing advice and grants to business start-ups. There is a system in place to promote entrepreneurship among young people as part of the You Are an Entrepreneur programme. The Federal Ministry of Economic Development, in cooperation with regional authorities, has set up centres to train entrepreneurs. Such centres are hosted by VET providers specialising in key areas of small and medium-sized enterprise (SME) development. These centres provide assistance to start-ups and offer methodological guidance to CVET teachers.

To encourage engagement between VET providers and employers, a pilot was launched to introduce elements of dual VET in 13 Russian regions (Belgorod, Volgograd, Kaluga, Moscow, Nizhny Novgorod, Tambov, Samara, Sverdlovsk, Ulyanovsk, Yaroslavl, Perm and Krasnoyarsk regions, and the Republic of Tatarstan). This involved 150 VET providers, 57 000 students and 13 800 mentors, and 1 100 employers.

The strategic objectives for the VET system are set out in the Education National Project and its constituent Young Professionals Federal Project (Enhancing VET Competitiveness). To support the practice-oriented approach and provide an objective measure of learner achievements, a demonstration examination has been added to the final assessment of VET graduates.

CAVTs have been set up in regions to consolidate local education resources and make them available to VET, conduct labour market research and provide updates on high-demand and emerging

occupations, and design VET programmes to match this demand. CAVTs are expected to create a regional infrastructure to provide services to employers by training their employees in programmes adapted to the company's needs. As an important distinction from previous strategic programmes, CAVTs will place a strong focus on advanced technology. CAVTs are also expected to mobilise regional VET networks to provide anticipatory training in skills needed for specific investment projects. In 2019 more than 14 CAVTs became operational.

One important area of VET system development is the upgrading of VET providers' physical infrastructure. To achieve this, funds have been earmarked to be spent up to 2024 for setting up 5 000 workshops, each fully equipped to provide training in a specific competence. Co-financing from the federal and regional budgets within the framework of the Education National Project has made it possible for approximately 340 VET colleges to upgrade their physical infrastructure and introduce new teaching and learning methods.

The National Project has a strong emphasis on promoting mentoring and advancing participatory mechanisms for public and business involvement in governance and decision-making at VET provider level.

A major challenge faced by the labour market is the expected decline in active population by 2030. In 2018 the Russian government announced its decision to raise the retirement age. In an effort to promote employment, the Demography National Project supports measures to offer vocational training and CVET to people of pre-retirement age, with the target of training 450 000 people by 2024.

Another measure designed to compensate for the reduction in the active population is to raise labour productivity. In addition to other measures, the Labour Productivity and Employment Support National Project envisions training opportunities for current employees who require a skills upgrade for better productivity and for those at risk of being fired, with the target of training almost 100 000 people by 2024.

Each year, public employment services (PESs) refer some 190 000 unemployed individuals to VET, vocational training, retraining and professional development courses, approximately 160 000 of whom complete the training. Policies aimed at preventing tensions in the labour market provide for anticipatory vocational training and internship for some 30 000 persons annually.

SVET providers cover approximately 21% of the total number of students. VET providers that have an anchor enterprise in a strategic industry or a resource centre tend to be more successful than others in training adults. Training students for WorldSkills and student participation in WorldSkills events is more characteristic of VET providers in the service sector, healthcare, teaching, economy and law, and, to a lesser extent, the engineering and forestry sectors. However, involvement in WorldSkills does not attract more students to CVET in sectors such as oil and gas production, chemical processing, agriculture, computer science and communications.

There are VET and vocational training opportunities available for marginalised groups, including training offered as part of federal-level programmes or projects implemented by the Ministry of Labour and Social Protection and the Ministry of Education. There are no barriers to access. Training modalities such as e-learning, distance learning and individual curricula are permitted by law and used in practice.

Lifelong learning is a priority for Russia and has been supported through a number of activities pursued by the Ministry of Labour and Social Protection, such as promoting early intervention in the

Russian Federation for the period until 2020; vocational training and CVET for citizens of pre-retirement age; retraining and continuing professional development (CPD) of employees as part of the federal project on supporting employment and raising labour market efficiency for better labour productivity; vocational training and CVET for women on childcare leave who have children aged under three; and keeping the public and employers informed about the situation in the labour market.

Projections made by executive authorities in areas such as socioeconomic development, the workforce, demography, internal and external labour migration, and ongoing and planned investment projects form the basis for planning and financing the activities of VET colleges and technical schools.

As part of the Young Professionals Federal Project, work is under way to update the list of VET occupations and specialisations and to develop a new format for educational standards. The main objective is to harmonise the classifications used in the world of work and the education system by updating the nomenclature of VET occupations and establishing direct links between these occupations and current workplace standards and qualifications.

Measures taken by the government to harmonise workplace requirements for worker and specialist qualifications and their training in the VET system include the introduction of independent assessment of qualifications and the adoption of the relevant law in 2016. As part of this independent assessment process, a Register of Occupational Qualifications was compiled; individuals can have their qualifications confirmed by specialised centres. At the moment, this system is a work in progress, and institutional links with the VET system have yet to be fully formed.

The new format of the educational standards will make a distinction between 'vocational qualification' (i.e. qualification by training) and 'occupational qualification', so that one vocational qualification may be used as a basis for several occupational qualifications. Based on such standards, the content of SVET curricula can be adapted to match an SVET occupation or specialisation to the required qualification or combination of qualifications and to increase the proportion of practical training. As a result, graduates will be better prepared for the requirements of the workplace.

The Package of Measures to Improve the Secondary VET System in 2015–2020 includes:

- consistent integration of a practice-oriented (dual) training model in SVET;
- implementation of a package of measures focused on career guidance for school students and on the provision of SVET by combining classroom learning with work-based learning;
- design of proposals to encourage the participation of employer representatives in boards of trustees and supervisory boards of VET providers.

Central to the Action Plan for enhanced productivity and the creation or modernisation of high-performance jobs is a change in the federal tax legislation to motivate companies to participate in practice-oriented (dual) models for training skilled workers. In March 2019 the government adopted a decree on targeted training (under student–employer contracts).

Major limitations affecting decision-making and implementation in VET include low levels of funding of VET providers, poor links with regional employers (especially SMEs), and limited methodological support for the implementation of decisions made by supervising authorities. No systemic solution has yet been provided for harmonising the requirements of the world of work and the performance of the VET system.

Existing programmes to attract a migrant workforce – such as the Return of Compatriots programme targeting Russians who live abroad, or measures provided in the Law on Employment – do not involve skills training provided by the VET system.

There is no legislative framework in Russia to provide for the validation of non-formal and informal learning.

Mechanisms and procedures for independent assessment of qualifications are evolving. Such assessment is defined in Russia as a procedure to confirm that an applicant's qualification matches the occupational standard or qualification requirements that are established by federal laws and other applicable regulations and, thus, that reflect current labour market demand.

Russia has made a commitment to provide inclusive education. Adapted SVET programmes were available in 75 Russian regions in 2017. The highest proportions of students enrolled in adapted SVET programmes are reported in the Central (30.2%), Siberian (28.5%) and Volga (28.6%) federal districts.

For persons with disabilities and SHN, 240 training programmes are available for mid-level specialists and 136 training programmes for skilled workers and employees.

In 2018 Moscow hosted the Fourth Abilimpix National Championship for teams from 83 Russian regions involving 1 157 participants aged 14–65 – 186 specialists (16.0%), 733 undergraduate students (63.4%) and 238 secondary school students (20.6%) – who competed in 57 core competences.

Staff from 22.6% of the country's education providers took professional development and/or retraining courses in SVET for persons with disabilities and SHN in 2018; this included VET principals, teachers and support staff. A total of 8 000 people were trained.

In 2016 the Ministry of Education and Science (now the Ministry of Education), jointly with regional education authorities, the Union of Workers in Education and Science and the Union of VET Directors, prepared guidelines for implementing effective employment contracts in the VET system. Such contracts establish a direct link between VET trainers' professional performance and their remuneration.

The adoption of the Law on Independent Assessment of Qualifications makes it possible to harmonise the procedures for VET teachers and trainers' attestation and for independent assessment of qualifications.

3. VET POLICY IMPLEMENTATION

Improving the governance of regional VET systems

Efforts are under way to encourage consolidation of colleges and technical schools, and to build and train their management teams.

Based on lessons learned from piloting, the regional standard for providing human resources for industrial growth project was launched in all regions. In 2018 an updated version of the regional standard and a model roadmap for its implementation were developed.

In 2018 subsidies totalling RUB 682.6 million were allocated from the federal budget to support the modernisation of regional SVET systems. Forty-four regions were selected through a competitive process to host regional networking platforms for promoting new educational technology and teaching methods.

Modernising the VET infrastructure

In the country's 85 regions, 502 (cumulative number) multifunctional centres of applied qualifications have been set up. These are structural units of colleges and technical schools providing vocational training and CVET under contracts with employers.

The government allocated RUB 1.48 billion from its reserve fund in the form of grants to subsidise colleges and technical schools in their efforts to upgrade their physical infrastructure.

Updating VET content

The Ministry of Education approved 41 SVET FSESs; 61 model basic SVET programmes were developed, including those corresponding to 44 new SVET FSESs from the list of the top 50 occupations, taking into account the WorldSkills Russia guidance on standards and competences.

Promoting WorldSkills Russia

The Young Professionals Federal Project, which is part of the Education National Project, aims to promote VET. Its objective is the modernisation of VET, in particular by introducing adaptive, practice-oriented and flexible educational programmes.

The project's main targets (to be achieved by 2024) include:

- building a network of 100 CAVTs (14 of which have already been created) and 5 000 workshops with state-of-the-art equipment;
- involving 70% of SVET students in various forms of mentoring;
- facilitating CPD for 35 000 teachers in programmes informed by Young Professionals (WorldSkills Russia) guidance and best practice.

The total project budget is more than RUB 156.2 billion.

CAVTs will utilise regional resources to provide career guidance, fast-track vocational training, retraining, and professional development services for all categories of people, with a focus on high-demand, new and emerging occupations.

In 2018 the Ministry of Education, jointly with WorldSkills Russia and regional authorities, provided opportunities for professional development to 51 722 SVET teachers and trainers in the 85 regions, and also trained 18 616 experts for demonstration examinations and Young Professionals (WorldSkills Russia) championships.

The Education National Project includes the Digital Educational Environment Federal Project. Its objective is to create an advanced and safe environment for digital education to ensure the quality and accessibility of education of all types and levels. The total project budget is more than RUB 79.8 billion.

Quality assurance in VET takes place at federal, regional and institutional levels and involves actions by the government and by the professional community.

Pursuant to Article 90 of the Federal Law on Education, the government regulates education provision at federal level by establishing uniform requirements and audit procedures. The state regulation of educational activities includes the licensing and state accreditation of such activities and state oversight (supervision) in the field of education.

State accreditation is carried out by Rosobrnadzor (Federal Service for Supervision in Education and Science) or its regional counterpart.

The quality of SVET delivered by education providers is monitored pursuant to orders issued annually by the Ministry of Education. The purpose of such monitoring is to gather comprehensive and reliable information on SVET providers and their performance.

For the first time in 2018, this monitoring included sections on SVET providers' arrangements, resources for educational work and processes for training persons with disabilities and SHN. The 2018 monitoring was informed by available statistics and analytical data on SVET providers, data from the Pension Fund, the Federal Register of Education and Training Certificates, and other sources.

In order to assist the employment of adults, the Ministry of Labour and Social Protection offers training programmes in high-demand occupations. Such programmes are implemented by regional PESs in cooperation with VET providers.

Opportunities for the retraining and CPD of employees have been provided as part of the federal project on supporting employment and raising labour market efficiency for better labour productivity, implemented by the Ministry of Labour and Social Protection.

In 2017, 26.2% of all SVET students with disabilities and SHN were trained in specially adapted SVET programmes. Of all SVET providers whose students include individuals with disabilities and SHN, 12.8% have adapted programmes available. There is a possibility of studying online, depending on the type of occupation.

There is a system in place to offer vocational training to prison inmates, supervised by the Federal Penitentiary Service. Individuals currently serving their sentences can access training in more than 220 high-demand occupations. Local branches of the Federal Penitentiary Service collaborate with regional PESs to help recently released inmates reintegrate into society, with a special focus on young people and minors.

As part of the government's Employment Support Programme, steps have been taken to facilitate the employment of women who are raising children: PESs can refer these women to vocational training to allow them to return to their former workplace.

For the period 2019–2024, the Ministry of Labour and Social Protection has been working on measures to provide vocational training and CVET to people of pre-retirement age, as part of the Older Generation Federal Project implemented within the framework of the Demography National Project to offer support and improve the living standards of older citizens. There is a possibility of studying online, depending on the type of occupation.

The Foundation for New Forms of Education Development has continued to build the Quantorium network of youth technoparks to promote engineering and other technical occupations to young people. Currently, the network operates 89 sites in 62 Russian regions.

To ensure access to the formal VET system in the current context of economic sanctions and crisis, the government has provided targeted subsidies to VET, in particular to programmes offering opportunities to reskill to individuals at risk of becoming unemployed.

Colleges and technical schools provide dormitory accommodation. Currently, 1 878 000 people aged 15–19, or 27.6% of Russians in this age group, live in rural areas. The number of students attending VET institutions in rural areas is 161 942 (6.7% of all students in VET). Monitoring shows positive trends, such as a higher level of practice-oriented learning than the national average. In particular, the number of students under student–employer contracts is 2 232, or 1.4% of the total.

Since 2016 steps have been taken to provide an accessible environment and a physical infrastructure for inclusive training of individuals with disabilities and SHN. As part of the 2011–2020 Federal Programme for Accessible Environment, 49 model VET institutions have been set up and currently operate, with a mandate to support inclusive VET systems addressing the needs of students with disabilities and SHN in Russian regions.

Article 49 of the Law on Education provides for two types of teacher or trainer attestation (appraisal): a required assessment of their fitness for the job and a voluntary assessment, which may result in them being awarded the first or highest qualification category. The appraisal procedure was established by Order No. 276 of the Ministry of Education and Science of 7 April 2014. The main purposes of such appraisals are to encourage the professional development of teachers; to improve the effectiveness and quality of teaching and training; to identify ways of maximising teachers' potential; and to apply performance-based differential remuneration.

Teachers and trainers are regularly offered opportunities for CPD. According to the Federal Law on Education No. 273 of 29 December 2012, teachers can access professional development courses in their teaching specialisation at least once every three years (Article 47, part 5, p. 2).

The 2018 monitoring reveals a fairly high rate of CPD accessed by teachers. However, as before, there is insufficient availability of internships at high-tech workplaces with leading enterprises and organisations, advanced training in programmes in the relevant field of teaching, including information and communication technologies (ICT), in methods of teaching people with disabilities, etc.

Since 2017 additional internship opportunities have opened up for VET trainers providing practical instruction and for teachers and directors with the establishment of seven inter-regional competence centres and the Resource Centre for Vocational Training, Retraining and Continuing Training of the National Agency for Qualifications Development and WorldSkills Russia Academy.

A number of federal-level organisations offer both full-time and distance professional development courses. These include the WorldSkills Russia Academy, the State Institute for New Forms of Education, the NADQ Base Centre for Training Workers, and the Pastukhov State Academy of Industrial Management.

Russian regions have been developing a regional network for SVET teachers' continuing training, which is coordinated by local education development and CVET institutions. They offer programmes in educational psychology and pedagogy, methodology, and ICT in education, and arrange internships.

Ongoing assessment and final state examinations are still the main ways of assessing the learning outcomes of SVET students. However, these approaches are not currently considered adequate for an objective and reliable evaluation of the quality of learning. Therefore, the Ministry of Education and Science (now the Ministry of Education) has added demonstration testing as a new approach to the final attestation of VET graduates. A demonstration test includes modelling a real-life workplace environment in which graduates must carry out practical assignments in accordance with their profession. Test results are evaluated by an examination board that includes, in addition to teachers, representatives of employers or their associations, and experts from the Union of Young Professionals (WorldSkills Russia). The demonstration test assignments are based on occupational standards (where these exist) and take into account relevant assessment guidelines provided by WorldSkills Russia.

Russian law also requires independent assessment of the quality of education. This involves gathering information about teaching and learning activities, the quality of student training, and the implementation of educational programmes. Organisations authorised to conduct independent assessment of education quality publish information about the procedure and available findings online and forward this information, as appropriate, to federal and regional education authorities and to local self-government bodies. The findings of independent education quality assessment cannot lead to suspension or revocation of a provider's licence or withdrawal of their accreditation.

Russian law also provides for professional and public accreditation of educational programmes. Secondary legislation to regulate procedures for public and professional accreditation and independent assessment of qualifications has been drafted and approved by the National Presidential Council.

An electronic database (register) of professional and public accreditation of educational programmes is available; this contains a list of accreditation providers and details of programmes that have received accreditation. The register is operated by the National Qualifications Development Agency. The details of accredited programmes include a summary indicating the programme title and the education provider delivering the programme.

The Federal Law on Independent Assessment of Qualifications was adopted in 2016 and has been in effect since January 2017. It defines independent assessment as a procedure to confirm that an applicant's qualification matches the occupational standard or qualification requirements established by federal laws and other applicable regulations. In 2018 and 2019 the National Agency for Qualifications Development worked on a project to use independent qualification assessment as part of final and intermediate accreditation of SVET students.

The introduction of elements of dual VET, in which training is conducted partly on employer facilities, as well as the use of mentoring and targeted training under student–employer contracts all contribute to creating a practice-oriented environment for VET.

Of all VET students, 1.06% study under targeted training contracts at 301 VET institutions (7.7% of all VET providers). The largest percentage of VET students study under targeted training contracts, including in the following specialisations and occupations: driving of urban electric vehicles (40.8%), pyrotechnic products and technology (20.2%), railway construction and equipment (17.8%).

Some 798 VET providers (17.1%) actively use practice-oriented (dual) VET, and 8.73% of students receive such training. The highest proportions of dual VET are reported by providers in the Belgorod,

Orenburg and Moscow regions, and in the Chukotka Autonomous District. In 257 VET providers (5.5%), practice-oriented classes are held in departments and other subdivisions of real companies and social service providers in the respective sector, and 2.6% of students receive such training.

Network-based programmes that benefit from integration and the reasonable redistribution of resources available to VET providers, competence centres, resource centres, corporate training facilities, etc., all help to level out the differences across schools in terms of teaching and learning environments.

In 2018 RUB 2.5 billion was allocated from the federal budget to VET colleges and technical schools for creating high-tech training facilities. In 44 regions, VET providers have set up regional platforms with well-equipped training and laboratory facilities to lead the integration of state-of-the-art training technology in their regional VET systems in order to train skills for an innovative economy. Some 62 VET providers in 41 regions have received grants from the federal budget to finance the modernisation and upgrading of their physical infrastructure.

There have been examples of companies in the relevant economic sectors participating as strategic partners in upgrading SVET provider infrastructure. However, the percentage of machinery and equipment (no more than five years old) donated by such companies to VET providers is no more than 0.53% of the total value of equipment available to VET, according to the monitoring. Companies are providing this type of assistance to 36 VET providers (less than 1%). Nevertheless, overall, enterprises and organisations in relevant sectors have demonstrated their interest in VET by contributing to physical infrastructure upgrades for 71 VET providers.

A learning-outcomes, competence-based approach has been consistently implemented in Russia since 2008 and has served as the core principle in the development of FSESs and educational programmes in accordance with the applicable legal framework. In 2019 the Ministry of Education approved updated Model Regulations for methodology associations (MAs) in the SVET system. MAs are established and operate at federal and regional levels. Their role is to bring together teachers, academic researchers and employer representatives and engage them in designing and improving SVET FSESs and model educational programmes, and to coordinate the efforts of colleges and technical schools that are seeking to provide updated, high-quality SVET content. MA chairs are appointed by federal or regional education authorities, and the chair convenes the association.

MAs make proposals to the relevant authorities concerning SVET policies and regulations, SVET content, human resources, methodology and physical infrastructure; they participate in independent VET quality assessment and professional and public accreditation; and they contribute to the development of FSESs and model programmes. Such model programmes serve as guidance for designing SVET programmes at colleges and technical schools.

In 2014 the National Presidential Council for Occupational Qualifications was established. It coordinates efforts to improve the quality of VET, in particular:

- efforts to bring the federal VET standards in line with relevant occupational standards;
- efforts to introduce mechanisms for public and professional accreditation of VET programmes;
- efforts to establish a system for the independent assessment of qualifications.

To facilitate the development of qualifications for certain types of occupation, the National Council has established councils for occupational qualifications based in sectoral/multisectoral employer associations or other types of organisations that bring together and/or represent relevant industries.

Councils for occupational qualifications (COQs) coordinate efforts to develop qualifications frameworks for specific types of occupations. An important role for the National Council and COQs is to ensure that the education system receives consistent feedback from the world of work. In addition to this, the councils encourage each relevant professional community to come up with a consolidated position concerning qualifications requirements. Alongside efforts to develop occupational standards, work is now under way to compile lists of occupational qualifications (sector qualifications frameworks).

At the moment, MAs and COQs work together to propose new programmes or updates to existing programmes. Their collaboration in working groups and focus group facilitates consensus. They are also involved in research and systematisation of the fast-changing labour market demand.

In 2017–2018 MAs and COQs collaborated to update the SVET FSEs in the top 50 occupations and to develop model programmes informed by occupational and international standards.

4. REGIONAL EXPERIENCE

Tver region

The largest region of Central Russia, Tver has an area of more than 84 000 km² and a population of more than 1 300 000, one in four of whom live outside of cities.

In accordance with the Law on Education in the Russian Federation, VET providers enjoy a degree of independence but do not have full autonomy. The Tver region's Ministry of Education and the Council of VET Directors share the responsibility for governance and supervision of VET providers.

The regional education system consists of 460 kindergartens, 518 general schools and their branches, and 45 SVET providers with 10 branches. Of the 45 SVET providers, 36 are subordinate to the regional Ministry of Education, three to the Tver region's Committee for Culture, and six to the regional Ministry of Health.

The region's system of higher education includes leading academic centres such as Tver State University, Tver State Technical University, Tver State Agricultural Academy and Tver State Medical University.

The region's SVET system offers 55 training programmes for skilled workers (employees) and 87 programmes for mid-level specialists.

The regional authorities place a strong focus on training skills for priority industries and have procedures in place to establish admission targets for public VET providers. These targets are informed by the skills needs of regional enterprises, taking into account new operations to be launched. The target-setting work is coordinated by the regional Ministry of Economic Development. The region's cluster-based policies are outlined in Order No. 338-rp of 6 August 2013 of the region's government on the regional investment strategy for the period up to 2020.

As part of its programme for promoting employment in the period 2017–2022, the Tver region is pursuing a proactive employment policy, taking steps to prevent tensions in the labour market, and encouraging the voluntary return of compatriots living abroad back to the region.

However, the quantitative and qualitative mismatch between the skills supplied by the VET system and those required by the labour market remains a problem. Steps have been taken in the region to address this problem by encouraging social partnerships of VET colleges, institutions of higher education, and employers. Career guidance centres have been set up at all VET providers in the Tver region.

The region has been involved in the implementation of the Education National Project and its regional components – the Digital Educational Environment and Young Professionals, both focused on modernisation of the region's VET system.

Hosted by VET providers, eight regional resource centres serve key sectors of the region's economy: engineering, education, agriculture, transport, light industry and consumer services, architecture and construction, tourism, ICT, and beauty and hairdressing services.

Work is ongoing to update the governance arrangements of the region's VET system and to create new infrastructure such as CAVTs, specialised competence centres and centres for conducting demonstration tests.

In 2018 an integrated information environment was created in the region's VET system to improve teaching and learning.

The regional programmes on skills training for regional employers by public SVET providers in 2016–2020 and on social support and social protection in the Tver region in 2017–2022 include measures to improve the living standards of families with children, orphans and vulnerable populations by offering them social support and affordable, high-quality services.

As part of these programmes, more than 1 300 orphans and other young people without parental care are currently taking SVET courses, and more than 600 students with disabilities and SHN benefit from supported training solutions.

Each year more than 5 000 workers and specialists graduate from the Tver region's VET system. In 2017, according to the VET graduate employment monitoring exercise, 55.5% of all VET graduates were employed, 7% continued their training, 31% were called up to the army, and 2% were on maternity or parental leave.

The current priority areas for VET development in the region are as follows:

- to implement a system for professional development of VET teachers and trainers;
- to create an advanced and safe environment for digital learning to ensure the quality and accessibility of VET;
- to develop and strengthen CVET;
- to use professional competitions to offer VET students opportunities for professional and career advancement.

Republic of Bashkortostan

The Republic of Bashkortostan is one of Russia's most highly developed regional economies. Its priority sectors include chemistry and petrochemistry, construction, engineering and metalworking, agriculture, non-ferrous metallurgy, and transport.

According to the Strategy of Social and Economic Development of the region for the period until 2030 (approved by the Republic of Bashkortostan Government Decree No. 624 of 20 December 2018), 'Bashkortostan in 2030 will be a competitive region with a stable economy and well-developed social infrastructure, and one of the top ten leading regions of the Russian Federation'.

The region's policy for SVET aims to modernise the system to improve its capacity to train highly skilled workers and employees who are competitive, competent, capable of performing to the highest standards, and committed to CPD.

Similarly to federal-level arrangements, governance of the VET system in the region is centralised and led by the regional government. The regional Ministry of Education and sectoral ministries act as founders of VET providers. A consultative body to the regional government, the Interdepartmental Coordination Council for skills supply to economic sectors and the social sphere, representing a wide range of stakeholders, works to develop policy proposals for the VET system.

VET providers have autonomy in terms of teaching, research, administration and finance, and in adopting their internal regulations. The region has a system in place to encourage and operate public-private partnerships.

However, upgrading the physical infrastructure of VET is a challenge and requires additional sources of funding besides grants. Many VET teachers and trainers are about to retire, but younger people are not entering the profession to replace them because of relatively low salaries in VET.

Bashkortostan has been an active participant in the Education National Project, in particular through its constituent projects such as Young Professionals, New opportunities for everyone, Social involvement, Training highly qualified specialists and workers based on modern standards and advanced technology (Human resources for advanced technology) and Digital Educational Environment.

The Interdepartmental Coordination Council for skills supply to economic sectors and the social sphere was established by the regional government's Decree No. 17 of 31 January 2006. Its mission is to match the supply of skilled workers and specialists with the labour market demand and to maximise the potential of the region's VET system.

The VET system in the region has the following objectives:

- to provide an infrastructure for training qualified specialists and workers in accordance with current standards and advanced technology;
- to build a pool of VET teachers capable of the delivery and assessment of relevant qualifications in accordance with the WorldSkills standards;
- to update the infrastructure for delivering basic VET programmes, as well as vocational training programmes and supplementary VET programmes;
- to enable VET providers to deliver adaptive anticipatory training in order to minimise current and anticipated skills shortages in the labour market;
- to foster the development of continuing inclusive education;
- to facilitate learners' successful socialisation and effective personal fulfilment;
- to explore new and effective approaches to providing career guidance to general school students in order to match the anticipated need for skills in the regional economy.

The region has 96 VET providers, 89 of them public and 7 private. A total of 93 900 students are currently in training for 131 specialties and 72 worker occupations.

Ongoing VET infrastructure upgrades are financed from the federal and regional budgets, co-financed by employers, and from VET providers' extra-budgetary funds.

As a result of the reorganisation of public VET institutions to optimise their use of resources, the number of VET providers has been decreasing: in 2010 there were 181, in 2013, 152, in 2018, 97 and in 2019, 96. Seven VET providers have been reorganised by merging into 21 multidisciplinary educational establishments (21.88% of the total number of VET institutions). At the request of sectoral employers, 8 multifunctional centres of applied qualifications have been set up to provide training based on occupational standards to employed adults (the centres have trained more than 12 000 people in total). Another step in upgrading the regional VET system has been an online platform that has been made available to VET providers.

A regional project – New opportunities for everyone – has been launched to make it possible for individuals to upgrade their professional skills, in particular to acquire competences for the digital economy.

At present, 723 students with disabilities and SHN are enrolled in VET, including 413 in programmes for skilled workers and employees and 310 in those for mid-level specialists. Some 15 VET providers offer programmes for students with disabilities and SHN (learning difficulties), and they currently have 409 students enrolled in such programmes.

The number of VET graduates in 2018 was 23 112 people, 68% of whom are employed, 23.2% are continuing their education, 5.4% are on maternity or parental leave, 1.5% have been drafted into the army, and 1.9% are unemployed. The average graduate salary is RUB 23 000.

Khabarovsk region

The Khabarovsk region is located in the Far East of the Russian Federation. In 2019 its population was 1 321 496 people, with a population density of 1.68 people/km² and with 82.56% of inhabitants living in cities.

Its education system works to develop the region's human capital, to satisfy its inhabitants' demand for education services and to train skills for priority economic development areas such as Khabarovsk, Komsomolsk, Nikolaevsk and the Free Port of Vanino and, more broadly, for the economies of the Khabarovsk region and the Russian Far East.

The main education policy document is the Programme for Education Development in the Khabarovsk Region for 2013–2024, approved by Khabarovsk Region Government Resolution No. 177-pr of 5 June 2012. The programme is designed to ensure access to quality education that matches the needs of the region's innovation-driven socioeconomic development.

Pursuant to Federal Government Order No. 349-r of 3 March 2015, the regional government issued Order No. 634-r of 16 September 2015 to implement a set of measures designed to improve the region's SVET system in the period 2015–2020.

The region has 46 VET providers with a total of 78 800 students, including:

- 30 VET colleges with a total of 29 900 students, of whom 23 000 are enrolled in programmes for mid-level specialists and 6 900 in programmes for skilled workers and employees;

- 16 institutions of higher education delivering SVET to 4 000 students.

The region's SVET system employs 1 800 teachers and trainers, 21.3% of whom are aged 35 or younger; the average age of VET teaching staff is 47. In 2018 more than 50% of VET teachers and trainers benefited from professional development opportunities. As part of the State Plan for Training Management Personnel for the National Economy, 23 specialists from enterprises and organisations took training courses, and 6 individuals completed internships abroad.

Training is provided in 123 higher education specialisms, and in 127 specialisms and 67 occupations of SVET.

The Khabarovsk Regional Institute for VET Development is responsible for the coordination of federal and regional programmes for SVET providers. The institute operates 15 training clusters and facilitates the resourcing and accreditation of specialised competence centres. In collaboration with enterprises in aircraft manufacturing, shipbuilding, mining, agriculture, transport and services and with general schools, VET providers are implementing phased integration of a practice-oriented training model. As part of this implementation, three VET providers have set up structural units at enterprises, and relevant departments, training facilities, and resource and training centres have been established.

The region provides career guidance services for school students.

In 2018 the region implemented Managing changes in the VET system to strengthen the regional economy, an international programme designed to train managers for the region's VET system.

Also in 2018, the Future Skills initiative was launched in the region. Working groups have been set up in 13 competences involving 11 VET providers, which is 42% of all VET providers in the Khabarovsk region.

Other resources available in the region include an inter-regional competence centre focused on skills training in industrial and engineering technologies according to the WorldSkills standards; 7 specialised competence centres accredited by WorldSkills Russia; 2 multifunctional centres of applied qualifications; 2 'base organisations' to facilitate inclusive VET; 15 industry training clusters; 16 centres for demonstration testing; and centres providing certification of qualifications and employment assistance for graduates.

The quality of training is a priority consideration for the regional VET system. In 2018 a total of 21 VET providers piloted demonstration tests based on WorldSkills standards in 21 competences (compared with 6 VET providers and 11 competences in 2017). Compared to those for 2017, the results for 2018 had improved 4-fold: of 722 students taking the test, 233 (32.2%) demonstrated results corresponding to the WorldSkills standards (compared with 271, or 24%, in 2017).

For six years, a team from the Khabarovsk region has participated in the national Young Professionals (WorldSkills Russia) championships.

In October 2018 the Third Abilimpix Championship of the Khabarovsk region was held, with 136 individuals with disabilities and SHN competing in 23 competences. During the Abilimpix National Championship in Moscow in 2018, the Khabarovsk regional team won four gold, four silver and two bronze medals.

Since 2015 the region has been taking steps to expand international cooperation in VET, led by the Khabarovsk Regional Institute for VET Development. Since 2016 the institute has signed and is now working under nine cooperation agreements with VET colleges and other organisations in Japan (Nagaoka), China (Harbin, Weihai, Xingtai, Sanya and Beijing) and Belarus.

The region's policy for international cooperation in VET is consistent with federal laws, the charter of the Khabarovsk region, and relevant regulations issued by the regional government and the Ministry of Education and Science.

5. RECOMMENDATIONS FOR ACTION

Alongside clearly successful developments in advancing education quality assurance arrangements, such as the adoption of a legal and regulatory framework for public and professional quality assurance instruments and piloting their use in a series of projects and initiatives, there are a number of serious problems that could undermine the quality of VET, including the following.

- There are poor incentives for teachers to improve their performance, and for attracting and retaining teachers, including practitioners (employer representatives). Adopting an occupational standard that is used to define the job functions and assess the qualifications of VET teachers and trainers could provide an effective solution to this problem.
- The various forms of education quality assessment are predominantly led by government. While the instruments of public and professional assessment of VET programmes and providers are not yet sufficiently institutionalised, the only body performing such assessment is Rosobrnadzor, as well as a number of selected regional organisations to which Rosobrnadzor has delegated this responsibility. A potential solution could be to delegate even more supervisory functions to such organisations.
- There is inadequate expert and methodological support available to colleges, technical schools and regional education authorities to help them with project management and with the development of systemic approaches to training skilled workers and mid-level specialists. The lack of this type of support can negatively affect the quality of VET. MAs should play a greater role in making methodological support available to SVET providers.
- There is insufficient transparency in SVET statistics concerning the learning outcomes of SVET students and the proportion of students who require additional learning and training support, and concerning students with disabilities and SHN. The lack of transparency in such statistics makes it impossible to understand the real issues and to design flexible, adaptive educational programmes and ways to build general competences (including entrepreneurship) within the VET system. Potential solutions include updating the monitoring indicators, taking further steps to improve the effectiveness of the VET system, and using the forecasting capacity of VET quality monitoring to build evidence-based SVET development strategies adapted to regional specificities.

6. CONCLUSIONS

Priority objectives for the future include:

- facilitating measures to match SVET graduates' qualifications to labour market and employer requirements; such measures could consist of new approaches to designing educational standards, strengthening the practice component of educational programmes, and encouraging various forms of workplace training (steps in this direction have been made in 2018–2019);
- encouraging social and public–private partnerships to attract co-financing of VET infrastructure upgrades, to encourage practice-oriented training (by increasing the share of workplace training and mentoring), and to provide (add) internship opportunities for VET teachers;
- involving VET providers in activities planned as part of national projects, for example in providing training to labour migrants, individuals of pre-retirement age, current employees and other categories to improve their capacity and employability;
- strengthening methodological services in the VET system at federal and regional levels.

THEMATIC ANNEXES

Annex 1. Work-based training approaches

The VET system's objective of providing quality training in the top 50 high-demand occupations requires the use of state-of-the-art methods of teaching and learning that have proved effective in Russia and across the world. In addition to more traditional approaches, work-based training approaches, including elements of dual VET and a modular system, have been introduced.

There are three coexisting models of work-based learning in Russia:

5. apprenticeship with a company (dual VET for adults);
6. work-based practical instruction provided as part of a VET course;
7. work-based training at dedicated, specially equipped workplaces run by a VET provider (e.g. workshops, laboratories, workplace simulation facilities, practice facilities, resource centres, etc.).

Dual VET implies that employers act as training providers for young students. In Russia, similar to the situation in many other countries, this type of dual VET is impossible owing to legal and traditional constraints, namely the requirement that SVET may only be provided by educational establishments such as technical schools and colleges.

The form of dual VET that is currently used combines theoretical classroom learning in college with practical training at production facilities. This approach is workplace-focused, supports the use of mentoring and can benefit from new forms of public-private partnerships, such as co-financing of training for specific jobs (targeted training).

A modular system combines modular training with academic methods, has a credit system that allows flexibility in responding to a rapidly changing labour market, and supports student-centred individual learning paths.

E-learning in a digital environment supports a variety of training approaches, such as synchronous, asynchronous and mixed training, the use of simulation and modelling, etc. The education process also uses business games, role play and project work. Certain VET providers have adapted and applied some of the methods used in training WorldSkills teams.

Annex 2. Career guidance

Organisations providing career guidance to general school students, current college students and graduates in Russia include:

- providers of continuing education to children and adults;
- career guidance centres (divisions) at VET institutions and universities;
- career guidance centres for young people operated by Rosmolodezh;
- employment services (centres);
- non-governmental career guidance companies and counselling centres, and career guidance consultants in private practice.

Core services usually include career aptitude testing, career counselling, field trips and training courses to facilitate the right career choice.

Career guidance is not required in preschool and general schools. Colleges and universities organise career guidance events and activities to enhance enrolment. A few major Russian companies, such as KAMAZ, Yekaterinburg Transgaz and Vyksa Metallurgical Plant, provide career guidance to school students and undergraduates to create a workforce reserve for their operations. Career guidance for adults is provided by a network of employment services (PESs) managed by the Ministry of Labour and Social Protection. These services are regulated by the ministry's instructions, which date back to the 1990s.

Some regions have a system in place to provide organisational, informational and methodological support and human resources to CVET providers that offer career guidance to school students. A specialist centre for career guidance and psychological counselling operates in the Yaroslavl region.

The environment for career guidance in Russia is varied, with some cities and regions, such as Moscow, St Petersburg, Kemerovo, Samara, and Sverdlovsk regions, having an active market of diverse career guidance programmes and services, and some others, such as the North Caucasus and Oryol and Pskov regions, having virtually no career guidance available for school students.

There is no central, government-led coordination of career guidance at federal and, in most cases, at regional level (no regulations, licensing, certification and quality assessment of career guidance services or monitoring of their impact on students).

At federal level, a career guidance project, Ticket to the Future, has been operating since 2018. It has three modules: career-oriented developmental diagnostics; practice (career tests, festivals of professions); and career guidance mentoring. The project covers 100 000 school students from grades 6 to 11 in 40 regions (47% of all Russian regions). The project's lead operator is WorldSkills Russia.

The main reserve for further improvement of the situation is the growing demand for career guidance felt by all stakeholders, including the government, employers, students and their families, the academic community and educators, the emerging community of career guidance and career development practitioners, and society in general. Each of these stakeholders can take a lead by initiating meaningful projects in this area.

Annex 3. Inclusive education and VET

Russia has made a commitment to provide inclusive education. Adapted SVET programmes were available in 75 Russian regions in 2017. The highest proportions of students enrolled in adapted SVET programmes are reported in the Central (30.2%), Siberian (28.5%) and Volga (28.6%) federal districts.

For individuals with disabilities and SHN, 240 training programmes are available for mid-level specialists and 136 training programmes for skilled workers and employees.

In 2018 Moscow hosted the Fourth Abilimpix National Championship for teams from 83 Russian regions involving 1 157 participants aged 14–65 – 186 specialists (16.0%), 733 undergraduate students (63.4%) and 238 secondary school students (20.6%) – who competed in 57 core competences.

Staff from 22.6% of education providers took professional development and/or retraining courses in delivering SVET to persons with disabilities and SHN; this included administrators, teachers and support staff. A total of 8 000 people were trained.

Innovative methods of facilitating employment for persons with disabilities (regional pilot project)

At the initiative of the Federal Service for Labour and Employment (Rostrud), in 2017–2018 the Republic of Bashkortostan was selected to host a pilot project to develop effective approaches to facilitating access to employment for individuals with disabilities.

As part of the pilot project implementation, counsellors of the Ufa Employment Centre conducted a series of counselling and training sessions for individuals with disabilities and employees of enterprises. Supported employment managers and mentors were appointed at workplaces and worked together to describe potential vacancies for persons with disabilities, prepare questionnaires for persons with disabilities and their mentors, and adapt Behaviourally Anchored Rating Scales (BARS) for performance appraisal. The pilot project also created internship opportunities for people with disabilities, with workplace mentors assigned to them.

Based on the results of the pilot project, 183 individuals with disabilities and SHN benefited from counselling and behavioural interventions and were prepared to take up employment.

LIST OF ACRONYMS

CAVT	Centre for anticipatory vocational training
COQ	Council for occupational qualifications
CPD	Continuing professional development
CVET	Continuing vocational education and training
FSES	Federal state educational standards
ICT	Information and communication technologies
ISCED	International Standard Classification of Education
MA	Methodology association
MLTP	Middle-level professional training programmes
PES	Public employment service
RUB	Ruble (currency)
SHN	Special health needs
SME	Small and medium-sized enterprise
SPED	State Programme for Education Development
SVET	Secondary vocational education and training
SWETP	Skilled worker or employee training programmes
VET	Vocational education and training