# TORINO PROCESS 2018-20

## National report

# RUSSIA

ETF Working together Learning for life

European Training Foundation

THE EU AGENCY SUPPORTING COUNTRIES TO DEVELOP THROUGH LEARNING

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# 1. NATIONAL REPORTING FRAMEWORK

## Building block A: Country and VET overview

## 1. A.1: Country background

### A.1.1 Introduction

Since the previous 2016–17 report, Russia's Vocational Education and Training (VET) system has evolved in a challenging foreign policy environment and, as a result, in an unstable socioeconomic context. As before, current developments in the VET system are coordinated with the government's policies aimed at import replacement, i.e. efforts to replace imports with domestically produced goods. Modernisation of the national qualifications system continues, as well as the formation of an expert community at regional level. Since the 2016 national report, digitisation has been an important new area of the government's policy for the country's socioeconomic development. The Digital Economy in the Russian Federation programme approved by the government in 2017 contains a subprogramme: Human Resources for the Digital Economy. The programme is designed to improve conditions for the country's competitiveness, wellbeing of the people, economic growth and national sovereignty.

Implementation of the package of measures to improve the Secondary VET (SVET) system in 2015–20 (Government Order No. 349-r of 3 March 2015) is nearing completion.

The Education strand of Russia's National Projects (hereafter the Education National Project) builds on the results of this effort.

The government places a special 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 in the retirement age over the period until 2034.

In 2019, for the second time, a series of Torino Process regional (subnational dimension) reports have been prepared which generally confirm the key trends in the country's VET system development, while the number of Russian regions involved in the Torino Process has substantially increased. See brief overviews of reports from the Tver region and the Republic of Bashkortostan.

## 2. A.2: Overview of VET

### A.2.1 Overview of VET: set-up and regulatory framework

As noted in the 2014 Torino process report, the structure of the VET system in Russia is set out in the Federal Law on Education in the Russian Federation (No. 237 of 29 December 2012). The Initial VET (IVET) education level has been raised to that of SVET. This level includes the following programmes:

– Programmes for training skilled workers (employees). Admission to such programmes is based on at least nine years of general school (students aged 15 and above, with VET lasting 2 years 10 months).

This comes under the International Standard Classification of Education (ISCED) as post-secondary non-tertiary education;

– Programmes for training mid-level professionals. Admission to such programmes is based on either nine years of basic general school (students aged 15 and above, with VET lasting 3 years 10 months) or 11 years of secondary general school (students aged 17 and above, with VET lasting 2 years 10 months). ISCED: short-cycle tertiary education.

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

– 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 SVET. These are accessible to individuals aged over 20, but typical student ages range from 30 to 40.

Annex 1.2 provides a brief overview of the structure and content of Russia's VET programmes in accordance with ISCED 2011 levels.

SVET programmes are implemented in higher education (HE) institutions, technical schools and colleges. Vocational training programmes and supplementary vocational training programmes are also implemented in technical schools, colleges and HE institutions. 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, seven interregional competence centres were set up, and work is underway to create 100 centres for advanced vocational training by 2024.

The key primary and secondary legislation pertaining to the VET system includes the Federal Law on Education in the Russian Federation; the State Programme for Education Development in 2013–20; the State Programme for Education Development in 2018–25; 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; and the 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 (FSES) for SVET.

Matters such as continuing training of workers, support for 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 programmes available under the Federal Law on Education in the Russian Federation. Federal Law on Independent Assessment of Qualifications No. 238 was adopted on 3 July 2016. 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.

### A.2.2 Institutional and governance arrangements

The federal government and the Ministry of Education are mandated to participate in VET governance and policymaking. At regional level, relevant regional authorities are responsible for VET policy and governance. These are usually regional ministries or departments of education. Since the Russian VET system belongs to the regional level, the regional authorities play the key role in its day-to-day management.

In 2018, by Presidential Decree[1], the Russian Ministry of Education and Science was transformed into the Ministry of Education and the Ministry of Science and Higher Education. The responsibilities of the Ministry of Education include policymaking 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 (Rosobrnadzor) is responsible for monitoring VET for compliance and effectiveness.

In Russia, the VET system belongs mainly to the subnational (regional) level, and VET providers are supervised by the respective authorities of constituent regions of the Russian Federation. 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 to this, some 20 federal executive authorities (federal ministries) manage their own affiliated colleges and HE institutions which offer vocational educational programmes in fields such as healthcare, culture, sport and transport. As for local authorities, the VET system is outside their mandate and therefore their involvement is minimal. Non-state actors, such as employers, experts, various associations and labour unions, mainly perform advisory and consultative functions. Sometimes, they are invited to join the government authorities in implementing certain projects and activities.

The distribution of responsibilities for VET is hierarchical. A downside of this system is poor interaction across levels, for example between federal and provider levels. Horizontal links across regional VET systems are also lacking. The federal government's limited ability to influence regional VET systems can lead to regional inequalities in terms of funding and education quality. VET providers enjoy a high level of autonomy. At the level of public VET providers, management and policymaking are functions of the director and a collective body of employees of the VET institution, and in some cases, also of the

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

governing boards, trustees or supervisory boards, if any. In private VET institutions, the board, usually consisting of the institution's founders, performs these functions.

Education providers are authorised to spend funds received from the public budget on educational programmes corresponding to targets set by the government. Over the past decade, their freedom to decide on the allocation of funds has further increased since the introduction of per capita financing in education. Education providers are free to spend extra-budgetary funds at their discretion and do not need the founder's approval.

Shaping and approval of the curriculum is the provider's 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% to 80% of the content of education, while the remaining 20% to 30% is formulated jointly by the VET provider and employers.

### A.2.3 Basic statistics on VET

Table 1 shows the number of VET providers for 2018–19. Table 2 then shows the number of students in SVET programmes, and Table 3 provides an overview of the percentage of 15- to 19-year-olds in VET.

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 |
| HE institutions | 348 | 289 | 59 |
| Separate subdivisions (branches) of HE institutions | 443 | 383 | 60 |

Source: Bondarenko et al., 2019.

Table 2: The number of VET students in SVET programmes at the school year's start (thousand people)

| VET levels | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|
| VET SWETP (skilled worker and employee training programme) | 622.7* | 547.6 | 543.2 | 542.1 |
| VET MLSTP (mid-level specialist training programme) | 2 180.2 | 2 304.8 | 2 387.7 | 2 464.3 |

Source: compiled by the report authors based on Bondarenko et al., 2019.
* data as of the calendar year end

Table 3: Coverage of 15- to 19-year-olds by VET programmes (number of students in VET to total age group) (%)

| | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|
| VET 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 |
| VET 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 Bondarenko et al., 2018.

Table 4 below shows the total number of employees in education providers offering VET programmes broken down between public and private providers and also employment type.

Table 4: Number of employees in education providers offering VET programmes in 2016–17

| | Total | Public and municipal providers | Private providers |
|---|---|---|---|
| Total | 437 539 | 421 372 | 16 221 |
| Administrators | 29 890 | 28 343 | 1 547 |
| Teachers | 227 029 | 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 Bondarenko et al., 2018.

National expenditure on education has been on a downward trend, from 5.1% of Gross Domestic Product (GDP) in 2006, to 4.1% of GDP in 2016. Both public and private spending has been cut over the past decade. In 2006, public expenditure on education stood at 3.9% of GDP, dropping to 3.5% of GDP in 2018. Public spending on SVET decreased from 0.3% of GDP in 2014 to 0.2% of GDP in 2016. In 2016, allocations to SVET stood at 199.8 billion roubles, or 6.4% of the consolidated public budget expenditure. Table 5 summarises the funds available to SVET providers.

Table 5: Funds available to SVET providers, by source of funding (%)

| | 2015 | 2016 |
|---|---|---|
| Public sources | 83.7 | 81.9 |
| Funds from organisations | 3.9 | 5.1 |
| Funds from households | 10.9 | 11.6 |
| Extra-budgetary sources | 1.4 | 1.2 |
| Foreign sources | 0.0 | 0.0 |

Source: Bondarenko et al., 2018.

### A.2.4 Vision for VET and major reform undertakings

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 approved[2]. These strategic plans are implemented through state programmes and national projects.

The State Programme for Education Development in 2018–25 (SPED) has been implemented through 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 the SPED in its 2018 version include education quality, access to education and online education with specific performance targets for each year.

Following the reorganisation of the Ministry of Education and Science, its successor, the Ministry of Education, convened an Interdepartmental Working Group in 2018 to elaborate a sector-focused education development strategy. Also in 2018, preliminary work was underway to come up with the methodology and content for a draft Strategy for Education Development in Russia. This work is currently ongoing.

Current efforts to promote VET are defined in the package of measures to improve SVET in 2015–20 (approved by Government Order No. 349 of 3 March 2015). Priority policy areas for VET are as follows:

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

In 2019, the Education National Project was launched to continue until 2024. Led by the Ministry of Education, the project also involves the Ministry of Science and Higher Education, Rosobrnadzor, the Federal Agency for Youth Affairs (Rosmolodezh), other federal executive authorities, regional executive authorities and institutional stakeholders. As far as VET is concerned, the project has the following objectives:

– modernisation of VET, in particular by introducing adaptive, practice-oriented and flexible educational programmes;
– build 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;

[2] More information is available here, in Russian: http://government.ru/news/36606/

– create, by 2024, an advanced and safe environment for digital education to ensure high quality and accessibility of education of all types and levels.

Figure 1: Public declaration of the Ministry of Education's goals and objectives in 2019


Source: https://docs.edu.gov.ru/document/0c2c9f76becd67948e231d6f38a28881/; accessed on 21 June 2019.

The Education National Project comprises a number of federal projects. The Young Professionals Federal Project aims to promote VET. Its key objective is modernisation of VET, in particular by introducing adaptive, practice-oriented and flexible educational programmes.

The project's key targets (to be achieved by 2024) are to build a network of 100 anticipatory VET centres and 5 000 workshops with state-of-the-art equipment; get 70% of SVET students involved in various forms of mentoring; and facilitate continuing professional development for 35 000 teachers in programmes informed by Young Professionals (WorldSkills Russia) best practices.

Total project budget: more than 156.2 billion roubles.

Figure 2:


Source: https://edu.gov.ru/national-project/; accessed on 10 October 2019.

# 3. A.3: The context of VET

## A.3.1 Socioeconomic context

Russia's economic growth rates are lower than the global average of 1.6% to 1.8%. Real disposable incomes have continued to decline for the fifth consecutive year. The incomes of some 20 million

Russians remain below the subsistence level. For the first time in 2018, migration inflows did not offset the natural population decline.

In 2018, unemployment dropped below 5% and increases were reported in real wages (by 6.8%), household final consumption expenditure (by 2.2%) and retail turnover (by 2.6%). Thus, the growth of consumption was higher than the growth of revenue. In response to stagnation of real incomes, consumer lending increased significantly. The outstanding debt increased by 2.7 trillion roubles for all consumer loans and by 1.2 trillion roubles for mortgage loans, while the total amount of bank deposits increased by more than 2.5 trillion roubles. Since interest payable on loans exceeds the growth of nominal incomes, many households face increasing debt-service-to-income ratios. Statistics clearly show a drop in household spending on education.

The macroeconomic situation remains favourable. Sovereign debt is very low: denominated in foreign currency, it is near zero. After six years of deficit financing, the federal budget has a surplus of 2.7% of GDP, and the non-oil and gas deficit continues to decline, indicating less dependence on hydrocarbon prices.

Investment remains low, with an increase of 4.3% (in 2017 it was 4.8%), in particular private investment which is a key indicator of whether economic development is sustainable and how much the government's socioeconomic policy is trusted (Gaidar Institute for Economic Policy, 2019).

In this situation, boosting economic growth and achieving sustainable improvement in wellbeing are important political and economic objectives. These objectives are addressed by the Presidential Decree of 7 May 2018 outlining a comprehensive set of macroeconomic, institutional and structural measures.

The sanctions are a significant factor in determining the country's current and future socioeconomic trends and economic policies. It appears that in 2018 in Russia, the understanding was finally established in the public mind that the sanctions are not a temporary situation to be endured but a serious, long-term challenge. Expectations of more sanctions to be imposed over time undermine socioeconomic processes and prevent prompt adaptation to challenges, leading to fluctuations in the financial market, rouble volatility, foreign investors' reluctance to engage with Russian companies, and capital outflow. This is clearly reflected in foreign direct investment trends that dropped to a mere USD 1.9 billion in 2018 compared to USD 27.1 billion in 2017 (a lower value of USD 0.6 billion was observed only once in 1994).

### A.3.2 Migration and refugee flows

The Ministry of Labour and Social Protection has been negotiating a number of intergovernmental agreements to facilitate labour migration. Draft agreements on labour force recruitment are being discussed in the framework of the Commonwealth of Independent States and in bilateral talks with the Socialist Republic of Vietnam, the Republic of Tajikistan and the Kyrgyz Republic (Russian Ministry of Labour and Social Protection, 2018).

This international mechanism of labour force recruitment includes selection of job candidates, their training in the country of origin, and monitoring their health, travel arrangements and job placement with a Russian employer.

According to monitoring results (Russian Ministry of Labour and Social Protection, 2018), the proportions of foreign workers in Russia's entire economically active population and in the number of people employed stand at 2.2% and 2.3%, respectively. The highest shares of migrant labour force are reported in the Magadan region at 11.4%, Sakhalin region at 7.5%, Moscow region at 7.4%, Kamchatka region at 6.7%, Irkutsk region at 4.8%, and the city of Moscow at 4.8%. See details in B.1.3.

In Russia, according to a study by the Higher School of Economics (HSE), migrant over-qualification rates stand at 82% for men and 79% for women (Romodanovsky and Mukomel, 2015).

### A.3.3 Education sector context

Figure 3 represents the education system in Russia and Figure 4 looks at the relationship between VET and other levels of education in the formal education system.

Figure 3: Education system in Russia


Figure 4: Relationship between VET and other levels of education in the formal education system

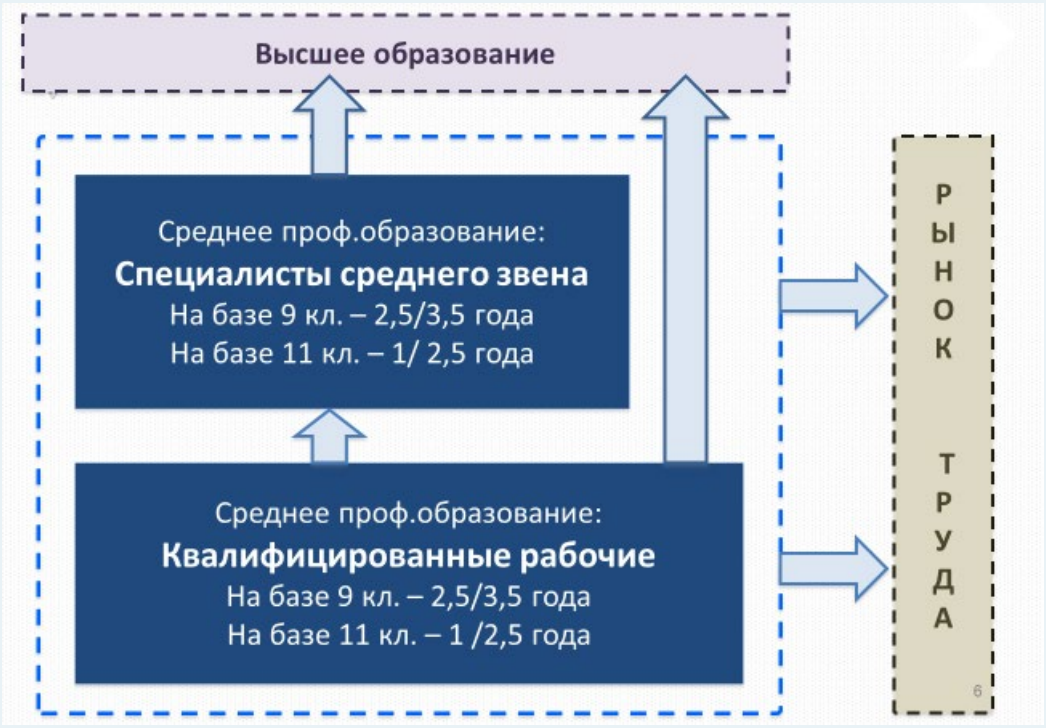


Table 6 shows the number of VET students in 2016–17 by age group (persons) while Table 7 shows student transitions in the education system in 2016.

Table 6: Number of VET students in 2016–17 by age group (persons)

| Programmes | Total | Age | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 15 and younger | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 and older |
| SVET (SWETP) | 547 600 | - | - | - | - | - | - | - | - | - | - | - | - |
| SVET (MLSTP) | 2 304 783 | 76 079 | 340 569 | 414 797 | 462 484 | 340 126 | 160 610 | 82 004 | 51 582 | 37 927 | 32 631 | 30 108 | 275 866 |
| HE | 4 399 487 | 110 438 | | | 425 041 | 528 899 | 610 284 | 618 490 | 508 109 | 338 633 | 212 672 | 153 934 | 892 987 |

Source: compiled by the report authors based on Bondarenko et al., 2018.

Table 7: Student transitions in the education system in 2016 (thousand people)

| Where / Where from | VET SWETP | VET MLSTP | HE | Labour market (plus military service and unemployed) |
|---|---|---|---|---|
| School grade 9 | 137.1 | 390.3 | 0 | 29.4 |
| School grade 11 | 37.6 | 110 | 453.9 | 73 |
| VET SWETP | 0 | 5 | 18.4 | 161 + 52.8 (no degree) |
| VET MLSTP | 0.7 | 0 | 125.3 | 343.8 + 230.5 (no degree) |
| HE | 0 | 1.4 | 167.9 (between HE levels) | 977.8 + 545.1 (no degree) |
| Labour market (plus military service and unemployed) | 32.5 | 198.2 + 75.9 (no degree) | 392.4 + 278.5 (no degree) | 0 |

Source: compiled by the authors based on Shugal, 2017.

### A.3.4 Lifelong learning context

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, including:

- promoting early intervention in the Russian Federation for the period until 2020;
- vocational training and CVET for citizens of pre-retirement age for the period until 2024;
- retraining and continuing professional development of employees as part of the federal project 'Supporting employment and raising labour market efficiency for better labour productivity';
- vocational training and CVET for women on childcare leave having children aged under three, in 2020–24;
- keeping the public and employers informed about the situation in the labour market.

As part of the Education National Project, 100 centres for advanced vocational training (CAVT) will be established by 2024, and 14 such centres have already been created. CAVT will mobilise regional resources to provide career guidance and fast-track vocational training, retraining and professional development services for all categories of people, with a focus on high-demand, new and emerging occupations.

# Building block B: Economic and labour market environment

## 4. B.1: VET, economy and labour markets

### B.1.1 Labour market situation

The labour market in Russia adapts to economic fluctuations by changing the cost of labour (wages), unlike many developed countries where such adaptation occurs through changes in employment/unemployment levels. Therefore, Russia has a fairly high employment rate which demonstrates extremely low elasticity in relation to the overall economic situation and production output. According to the Federal State Statistics Office (Rosstat), after years of economic recession, the unemployment rate was as low as 4.8% of the workforce in December 2018. However, low unemployment comes with major wage fluctuations.

Russia's strict labour legislation creates high costs and risks of doing business. High costs of firing – and corresponding high costs of hiring – hinder new job creation and economic modernisation. The minimum wage and unemployment benefits are low in Russia. There are hardly any limits on wage rises and cuts, while labour unions and collective bargaining do not play an important role in wage-setting. As a result, Russia is affected by the problem of the 'working poor' as the current system preserves low-paying jobs and pushes many people into informal employment. According to Rosstat's estimates, one-fifth to one-third of the country's workforce are self-employed or work in unregulated or under-regulated microbusinesses. Such informal employment often involves low-skilled, low-tech, non-capital-intensive and socially unprotected work in sectors such as agriculture, retail and construction.

A potential future challenge is the expected decline in the workforce by 2030, particularly noticeable in those aged 20 to 30. Shrinkage of the working population will inevitably lead to higher welfare spending to support people of pre-working and post-working ages.

Unwillingness of both employees and employers to invest in continuing training and retraining is another characteristic of Russia's labour market. This is due to limited resources available to households and enterprises, but also to elements of stagnation in the country's economy, such as weak competition, outdated technology and inadequate protection of private property. Low demand for human capital is a fundamental problem for the country's labour market.

Retiring employees are replaced in the labour market by the younger generation: since 1995, the share of young people who neither work nor study has been gradually decreasing.

A university degree in Russia brings a much higher bonus than VET: in 2015, an employee with HE earned, on average, 1.6 times more than someone with secondary education or training. There are differences across regions and sectors. For example, in 2014, the national average employment rate (ages 15 to 72) stood at 65.3% but varied from 81.2% in the Chukotka Autonomous District to 48.4% in the Republic of Tyva.

### B.1.2 Specific challenges and opportunities: skills mismatch

Annual employer surveys by the Russian Union of Industrialists and Entrepreneurs suggest that human resources remain one of the three greatest challenges for companies in Russia. According to employers,

most graduates of the VET system require additional training for the job. More than 80% of companies in the high-tech sectors provide additional training, usually in the form of mentoring, to the VET graduates they hire.

The most significant employee training gaps reported by employers concern job-related technical skills, while gaps in basic theoretical knowledge are not so common and are reported by just 15% of companies. On average, employers assess VET graduates' competences at 3.7 on a five-point scale.

Skills mismatch is a natural consequence of the VET system's structure and history. Most VET providers do not engage with real-sector employers. Many, but not all, VET providers have been able to upgrade their physical infrastructure in the recent decade. VET funding has been dwindling. It is worth noting that VET providers must comply with FSES and report to the government in the first place. Educational standards have been updated to match the occupational standards from time to time, usually no more than once in five years, while employers' skills needs change continuously and fast.

Employers also report a lack of soft competences in employees, such as independence, discipline, initiative, leadership and teamwork. According to employers, teaching soft competences is the responsibility of the education system and must be financed by the state or by students, while employers themselves are not willing to invest in building employees' soft competences due to high staff turnover and a short planning horizon.

In fact, the VET FSES include a soft skills component and VET providers are required to teach such skills. But above all, the VET system's objective is to provide practice-oriented training to ensure effective school-to-work transition. Adding hours of practice-oriented training and a supplementary specialisation are some of the approaches used to enable graduates to obtain jobs and perform well. The Federal Education Development Programme emphasises 'professionalisation of VET', meaning that graduates' qualifications must match the requirements of a specific job. In this context, there is a risk that soft skills may be treated by the VET system as less of a priority.

### B.1.3 Specific challenges and opportunities: migration

Since the late 2000s, there has been a decline in the economically active population in Russia. According to forecasts, this decline may slow down only by the mid 2020s and may not stop before 2030. The decrease in the active population will total 11 to 13 million people (a drop from 90 million to 79 million people) by 2030. Therefore, Russia's economy will continue to be highly dependent on labour migration in the coming decade.

Since 2011, a worsening economic situation and rouble depreciation have caused labour migration inflows to decrease. Russia has become much less attractive for migrants. While in previous years, the migration flow was 300 000 people per year, now it stands at about 250 000 people a year. The largest share (95%) of labour migrants come to Russia from the Commonwealth of Independent States countries, primarily from Uzbekistan and Tajikistan. Most migrants are employed in construction, services and manufacturing. The construction sector, where migrants account for more than 15% of all employees, is more dependent on them than other industries.

In terms of education, 64.7% of migrants have VET and the other 35.3% do not have any vocational training. In recent years, arriving younger migrants tend to be less educated than the older generation and take low-skilled jobs. But even migrants with secondary or higher VET work in jobs which do not require technical qualifications.

There is a problem with excessively high concentrations of migrant workforce in Moscow, St Petersburg, the Moscow region, the Leningrad region, Ugra and the Krasnodar region.

Foreign students are an important and attractive category which could potentially fill the workforce gap in Russia, but the role of VET is limited here since most foreigners are university students. According to experts, this group is not getting enough attention in Russia in terms of their employment potential.

In 2010, the government introduced preferences for highly qualified labour migrants. However, just a little over 150 000 work permits were issued to this category before 2016. The reasons may be two-fold: on the one hand, Russia may not be very competitive in terms of conditions it can offer to highly qualified migrants compared to developed countries, but on the other hand, due to economic stagnation and a bias towards state ownership, Russia may not have a high demand for such specialists.

The number of people emigrating from Russia was 40 000 per year before 2011 but went up sharply to 122 700 in 2012 and continued to increase to 377 100 in 2017. Due to changes in the rouble exchange rate, the average monthly wage dropped by more than a third between 2014 and 2016. Limited improvement in the living standards over the past six years has also driven the outflow of Russians to other countries.

Research shows that in recent years, emigration of members of the high-skilled workforce has increased, in particular due to the economic decline since 2014. However, more than half of Russians who have emigrated would be prepared to return should the economic situation improve.

### B.1.4 Specific challenges and opportunities: digital transformation

The Information and Communications Technology (ICT) sector is one of the fastest growing in Russia. Its share of GDP is approximately 2.7%, which is 1.6 times lower than the average for Organisation for Economic Co-operation and Development (OECD) countries. There is a positive overall demand for digital technology. Digital technology uptake by households is in line with global trends. But while Russian companies have adopted standard digital technology, very few have integrated automation and restructured their business processes accordingly. Digitisation of production facilities remains low. Virtual engineering and modelling, additive technology, the industrial internet, mechatronics and robotics have yet to become widespread.

In response to the country's insufficient progress in some areas of the digital economy, the Digital Economy National Programme has been adopted for the period until 2024. The programme identifies nine crosscutting technologies (including big data, quantum technology, robotics and sensorics, neurotechnology and artificial intelligence, and new production technology) which need to be integrated and expanded for digitisation and better competitiveness of the Russian economy. Generally, the national programme aims to create a holistic infrastructure for the digital economy.

Digitisation transforms the labour market, in particular by changing skills requirements. The VET system will need to adapt both the content and format of training to match the demand. The most common response of VET providers so far has been the use of online technology and corresponding forms of training delivery. The Education National Project emphasises digital technology as a priority in its VET section. Other steps towards digitisation are limited to pilot projects in a number of regions, including the city of Moscow.

At the moment, education providers are reasonably well equipped with computers and internet access. Studies show, however, that only a small fraction of students use the internet for learning, and continue to rely on lectures, lecture notes and textbooks. While computers are available, digital educational content remains insufficient. According to research, the proportion of VET teachers who use laboratory equipment for lesson preparation and delivery dropped from 20.5% in 2012 to 15.6% in 2014. There are problems with implementing a competence-based approach to teaching which, for example, involves the use of interactive learning, digital educational resources, business games and role playing, individual and group projects, case studies, psychological and other training sessions, and group discussions. Forms of teaching and learning in the VET system take a long time to change, and therefore the new opportunities offered by digital tend to be underused and have little impact on the education process. Teachers and their incentives remain the weakest link in the system.

In 2019, the Federal Education Development Institute of the Russian Presidential Academy of National Economy and Public Administration (FEDI RANEPA) launched a pilot to implement and integrate 'digital didactics' in a few VET institutions. As part of this pilot, VET providers are expected to field-test new approaches to teaching and learning, develop a package of teaching materials for dissemination, and come up with terms of reference for digital products to be developed specifically for the VET system. It is also expected that the introduction of digital technology for managing educational activities should enable more efficient and faster learning over a shorter period in VET. However, this expected transformation of VET in Russia is a matter of medium- or long-term plans.

### B.1.5 Strategic policy responses involving education and VET

Since the VET system was devolved to the regional level, the federal authorities have focused on the legal regulation and on determining strategic policy priorities in VET development and modernisation. National projects allowing the federal authorities to allocate targeted funds to colleges and technical schools have been instrumental in managing the regional VET network. Distributed through a competitive bidding process and matched by regional funds, the resources provided by national projects have served as a major source of Russia's VET system development. New institutions, such as the Agency for Strategic Initiatives to Promote New Projects and the Young Professionals (WorldSkills Russia), have been established to promote the government's strategic policies.

The first steps towards VET modernisation were made as part of the Education National Project in 2007–10, making it possible for 340 VET colleges to upgrade their physical infrastructure and introduce new teaching and learning methods with co-financing from the federal and regional budgets. At the next stage, the Targeted Federal Education Development Programme allocated funds to nearly 800 VET providers in 2011–15 for upgrading their physical infrastructure.

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), which involved 150 VET providers, 57 000 students, 13 800 mentors, and 1 100 employers. The WorldSkills movement has been one of the most important and consistently promoted elements of VET modernisation in Russia, aimed at enhancing the quality of VET to match the global standards. Another important advantage of WorldSkills is the associated public awareness campaign to raise the prestige of VET occupations and specialisations. However, no formal studies have been undertaken to measure the systemic impact of WorldSkills championships on the quality of VET in Russia.

Currently, the strategic objectives for the VET system are set forth 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 is foreseen for the final assessment of VET graduates.

A new type of institution, CAVT, has 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. CAVT are expected to create regional infrastructure to provide services to employers by training their employees in programmes adapted to the company's needs. As an important distinction from earlier strategic programmes, CAVT will place a strong focus on advanced technology. In addition to this, CAVT are also expected to mobilise regional VET networks to provide anticipatory training in skills needed for specific investment projects. In 2019, more than 14 CAVT became operational.

An important area of the VET system's development is upgrading VET providers' physical infrastructure. To achieve this, funds have been earmarked to be spent by 2024 by setting up 5 000 workshops, each fully equipped to provide training in a specific competence.

In terms of institutional transformations, the Education National Project has a strong emphasis on promoting mentoring as well as participatory mechanisms for public and business involvement in governance and decision-making by VET providers.

### B.1.6 The role of VET in remedies through active labour market policies

A major challenge faced by the labour market is the expected decline in the active population by 2030. The government's recent decision in 2018 was 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 remedy designed to compensate for the loss of active population is to raise labour productivity. In addition to other measures, the Labour Productivity and Employment Support National Project provides for training to be offered to current employees who require a skills upgrade for better productivity and to those at risk of dismissal with the target of training almost 100 000 people by 2024. It is hard to say at the moment how big the role of VET and HE will be in these remedies.

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

In terms of adult education and training in a broader sense, more than six million people or 20% of all employees were trained in 2016, most of whom received additional vocational training and just 2.8% studied in basic educational programmes. In terms of expenditure, employers spend, on average, four to six times more on training than any level of public budget. The lowest coverage by all types of training programmes is reported in sectors involving physical, manual and low-skilled work, such as fishing, fish farming, agriculture, hunting and forestry. Of particular concern is the low level of training coverage of employees in occupations such as wholesale and retail trade, repair of household and personal items, hotels and restaurants. Also low is the training coverage of blue-collar workers employed in education and healthcare.

HE providers train a greater number of students (1 668 000 people, or 60% in 2016) compared to VET providers (604 000 people, or about 21%). VET providers that have a partner enterprise in a strategic industry or a resource centre are more successful in training adults than those who do not have this base. Training students for WorldSkills and participation in WorldSkills events is more characteristic of VET providers in the service, healthcare, teaching, economy and law sectors, and, to a lesser extent, the engineering and forestry sectors. In contrast, a VET provider's involvement in WorldSkills makes no difference in terms of attracting students in sectors such as oil and gas production and chemical processing, agriculture, computer science and communications.

It should be noted that the content of most VET curricula focuses on specific vocational skills and qualifications. Extremely rare are programmes focusing on entrepreneurship, better productivity (such as quality management and lean manufacturing), career guidance and career design, and skills for the 21st century (communication, cooperation, problem solving and creative thinking); no systematic training is available in new types of literacy (digital, legal, financial, environmental), nor are there awareness-raising programmes, club groups or joint training programmes.

### B.1.7 Identification of skills demand and its bearing on VET provision

In Russia, the VET system belongs mainly to the subnational (regional) level. All forecasting of skills demand to inform planning and financing of college and technical school activities takes place at regional level. Skills demand forecasts take into account projections in areas such as socioeconomic development, workforce, demography, internal and external labour migration, and ongoing and planned investment projects.

Russian regions use two main approaches to skills demand forecasting. The first group of forecasting methods uses mathematical models based on data about the structure of the region's economy, production dynamics and demographic indicators. The second approach is based on sociology and is used in the Samara region, Krasnodar region and a few others.

The forecasting methods are not free from limitations which may affect the reliability. Such limitations include the absence of long-term forecasting and a formalistic approach to making regional

socioeconomic development projections. The nomenclature of occupations and specialisations taught in colleges is very different from the inventories of professions and positions used by employers.

Work is underway as part of the Young Professionals Federal Project to update the list of VET occupations and specialisations and to develop a new format for education standards. The main objective is to harmonise the classifications used in the world of work and in 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 and VET training included the introduction of independent assessment of qualifications and the adoption of the relevant legislative framework in 2016. As part of the independent assessment of qualifications, the Register of Occupational Qualifications has been built, and there is a possibility to have one's qualification confirmed by a specialised centre. At the moment, this system is a work in progress, and institutional links with the VET system have yet to be formed.

As part of the Digital Economy in the Russian Federation National Project, work is ongoing to develop a basic model of competences for the digital economy to establish uniform requirements for lifelong learning in the area of building and updating one's digital competences.

Major limitations affecting decision-making and implementation in VET include low funding of VET providers, poor links with regional employers (especially small and medium-sized enterprises (SMEs)) and limited methodology support for the implementation of decisions made by superior authorities. Thus, it should be admitted that no systemic solution has been proposed yet for harmonisation of the world of work requirements and VET performance.

### B.1.8 Supporting migrants and refugees through VET

Generally, VET plays a limited role in supporting migrants in their adaptation and integration in the labour market. As a rule, migrants occupy the niches of low-skilled jobs in construction, services and manufacturing. Up to one-third of migrants with VET are employed in jobs which do not require any qualifications. Another important factor is their employment insecurity and work in the shadow economy, where the demand for professional skills is low.

Existing programmes to attract migrant workforce, for example the government's Return of Compatriots programme targeting Russians who live abroad or measures provided in the law on employment, do not engage the VET system for skills training.

See also sections B.1.2 and B.1.3.

## 5. B.2: Entrepreneurial learning and entrepreneurship

### B.2.1 Job creation and VET

Based on monitoring of VET graduates' employment in 2016, just 1.05% of them started their own businesses.

VET programmes include disciplines relevant to entrepreneurship. There have been no formal studies in Russia on how entrepreneurship is taught in VET, but such studies have been conducted as part of the GUESSS (Global University Entrepreneurial Spirit Students' Survey) project for HE. Surveys reveal a very low integration of the entrepreneurial component in HE, with 55% of students never taking entrepreneurship courses.

A number of federal and regional programmes aimed at promoting entrepreneurial skills in young people and providing advice and grants to business startups are ongoing. Russia currently has a system in place to promote entrepreneurship among young people, as part of its 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 SME development. These centres provide assistance to startups and offer methodological guidance to CVET teachers.

Helping VET students develop entrepreneurial skills and promoting self-employment and new startups is one of the key areas of activity for Skolkovo School of Management, among others.

A wide variety of both formal and non-formal training programmes and courses are offered in the market of education services. Such courses play a major role in helping aspiring entrepreneurs acquire the necessary knowledge and competences.

Best practices have been reported in this area, for example in the Nizhny Novgorod region, and currently replicated in the entire Volga Federal District. In the Tambov region, the infrastructure is in place in the VET system for promoting entrepreneurial competences and entrepreneurship skills.

### B.2.2 VET policies to promote entrepreneurship

The key indicator used by the authorities responsible for VET is graduate employment in their chosen occupation or specialisation within a year of graduation. Self-employment and business startups by VET graduates are also monitored.

However, monitoring reveals that low coverage or quality of entrepreneurial training are among the least significant barriers to entrepreneurship, coming far behind the government's policies, limited access to finances and market entry barriers (for adult entrepreneurs) (Verkhovskaya et al., 2017).

As noted in B.2.1, promoting entrepreneurship is an area of activity for the Russian Ministry of Economic Development. Promoting entrepreneurship is the key objective of the Small and Medium-sized Enterprises and Support of Individual Entrepreneurial Initiative. This project provides for a number of economic and institutional measures to be taken between 2019 and 2024 and is aimed at developing small businesses and stimulating entrepreneurship.

In terms of the role for VET, the national project will support the design of educational programmes and courses for various target groups (including students) to develop entrepreneurial competences, prepare trainers, and train at least 450 000 people (cumulatively) by 2024 from different target groups. The way these projects are implemented at the moment indicates that the main focus in programme design and dissemination is on the HE system.

# Building block C: Social environment and individual demand for VET

## 6. C.1: Participation in VET and lifelong learning

### C.1.1 Participation

There are no problems with access to VET for young people in Russia. The Federal Law on Education guarantees access to SVET and lifelong learning. The law provides for free SVET subsidised from the federal, regional and local budgets. Horizontal transfer within VET is possible as long as it is between providers offering the same type of course and curriculum. In terms of transition to HE, VET graduates can enrol in universities by taking an internal entrance exam instead of the Unified State Exame (which is mandatory for general school graduates).

SVET is increasingly popular with young people, as seen from higher enrolment figures compared to previous reporting periods. In 2017, enrolment figures stood at 780 809 people, with the highest number (82 840) of admissions to SVET occupations and specialisations in group 23.00.00 'ground transportation equipment and technology' (see Table 8 for more details).

Table 8: VET enrolment in 2017

| | Total applications for VET | Applications for subsidised VET | Enrolled in VET, persons | Enrolled in subsidised VET, persons | Applications for VET to slots available | Applications for VET to subsidised slots available |
|---|---|---|---|---|---|---|
| Russian VET | 1 280 490 | 1 043 310 | 780 809 | 600 340 | 1.64 | 1.74 |

The top five occupations and specialisations in terms of admission to SVET also included groups 08.00.00 'engineering and construction technology', 38.00.00 'economics and management', 43.00.00 'services and tourism' and 15.00.00 'engineering'. Combined, admissions to SVET for these occupations and specialisations accounted for 42% of the total admissions.

In contrast, admissions levels are quite low in SVET for occupations and specialisations that are usually rare or outdated, for example diamond processing, radiation safety, diving and furniture upholstery.

## C.1.2 VET opportunities for vulnerable and marginalised groups

Vulnerable and marginalised groups include:

- convicted prisoners, including minors
- labour migrants
- adult employees at risk of dismissal
- persons with disabilities and SHN
- women on maternity leave and those raising children
- persons of pre-retirement age.

For all these groups, VET or vocational training opportunities are available, including those provided through federal-level programmes or projects implemented by the Ministry of Labour 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.

## C.1.3 Policies to improve VET access and participation

To assist the employment of adults, the Ministry of Labour offers training programmes in high-demand occupations. Such programmes are implemented by regional PES in cooperation with VET providers.

Opportunities for retraining and continuing professional development of employees have been provided as part of the federal project Supporting Employment and Raising Labour Market Efficiency for Better Labour Productivity, implemented by the Ministry of Labour.

In 2017, 26.2% of all SVET students with disabilities and SHN were in specially adapted SVET programmes. Of all SVET providers whose students include persons 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. Persons currently serving their sentences can access training in more than 220 high-demand occupations. Local branches of the Federal Penitentiary Service collaborate with regional PES to help recently released inmates reintegrate in society, with a special focus on young people.

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

In 2019 to 2024, the Ministry of Labour is 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.

As part of the government's Employment Support Programme implemented by the Ministry of Labour, measures were taken in 2016 to fill the unmet domestic demand for skills, and 23 114 highly skilled labour migrants were issued work permits in Russia as a result. The Russian authorities have been piloting and implementing targeted selection of highly skilled foreign specialists and workers for economic sectors affected by skills shortages in Russia.

Recent changes in the federal legislation on migration, including a requirement, effective as of January 2015, for labour migrants to take a test in the Russian language, history and law, are expected to increase demand for Russian language learning in the neighbouring countries. In 2018, more than two million foreigners passed this comprehensive test and received work permits in 2018.

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. By 2024, 245 Quantorium technoparks will open in 85 regions and 340 mobile Quantorium technoparks will be available to young people in remote and rural areas. This will allow two million children to learn and develop engineering skills online.

### C.1.4 Promoting VET access and participation for vulnerable and marginalised groups

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

Russian regions are expected to establish a network of model VET institutions with a mandate to provide guidance and facilities for inclusive SVET and IVET for persons with disabilities and SHN. Such institutions are selected from current providers so that they may form a network covering the entire Russian territory. The number of established model VET institutions will increase every year, i.e. 49 in 2016, 60 in 2017, 70 in 2018, 80 in 2019, and 85 in 2020. It is expected that in the next years, all persons with disabilities and SHN taking VET courses will have access to services provided by model VET institutions.

Colleges and technical schools provide dormitory accommodation. Currently, 1 878 000 people aged 15 to 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 has revealed 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.

### C.1.5 Flexible VET provision to support participation in VET

Flexible VET provision is supported by:

- taking into account the specifics of VET in certain sectors, such as education and pedagogy, healthcare, acting and music, physical education and sport, transport, agriculture, and visual and applied arts;

- the possibility of obtaining SVET at university. Currently, 348 HE providers offer SVET courses. In addition to the main campus, such courses are offered by their 442 branches elsewhere. The number of SVET students in HE institutions totals 525 927 people (17.9% of all SVET students). Most SVET students in HE institutions are trained to be mid-level specialists (98.89%);
- allowing students in SVET to take a vocational training course at the same time (for an additional occupation/qualification).

There is continuity between training programmes for skilled workers and mid-level professionals. While programmes are modular, it is not possible to be trained only in a specific constituent module ('part of a qualification').

SVET programmes have a variable element: its content is formulated at the discretion of the college or technical school depending on the needs of the region or a particular employer. The variable part makes up 20% and 30% of the total hours of study for skilled workers and mid-level specialists, respectively. As already noted, it is possible to use e-learning, distance learning and individual curricula.

### C.1.6 Validation of non-formal and informal learning

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

Mechanisms and procedures for independent assessment of qualifications are evolving[3]. Such assessment is defined in Russia as a procedure making it possible to confirm that an applicant's qualification matches the occupational standard or qualification requirements established by federal laws and other applicable regulations.

Thus, assessment is based on occupational standards and other qualification requirements reflecting the current labour market demand.

Its methodological and institutional framework provides for uniform underlying principles, integrity of information, transparency, possibility of verification, due account to sectoral specifics, and independence of professional communities and employer associations.

The independence of assessment is supported by procedures which are not dependent on the applicant, any individual employer or training provider, and are overseen by professional associations. See the website of the National Qualifications Development Agency (NQDA) for more details (in Russian): https://nark.ru/nok/.

## 7. C.2: Equity and equal opportunity in VET

### C.2.1 Success of learners in VET

*Data to be confirmed.*

[3] Federal Law on Independent Evaluation of Qualifications No. 238 of 3 July 2016.

## C.2.2 VET learners in need of additional learning and training support

According to monitoring, the total number of persons with disabilities and SHN in SVET programmes was 24 847 in 2017 (see Table 9 for more details), including 5 629 in programmes for skilled workers and employees and 19 218 in programmes for mid-level specialists. The number of such students increased from the previous reporting period by 11% and 14% for the said programmes, respectively.

Table 9: Distribution of students with disabilities and SHN by federal district in 2017

| Federal district | Number of students | Relative share of the federal district, % |
|---|---|---|
| Russian Federation | 24 847 | 100.0 |
| Far Eastern | 922 | 3.6 |
| Volga | 5 356 | 21.5 |
| Northwestern | 2 501 | 10.1 |
| North Caucasus | 2 294 | 9.2 |
| Siberian | 3 102 | 12.4 |
| Ural | 1 825 | 7.2 |
| Central | 6 250 | 25.2 |
| Southern | 2 597 | 10.8 |

The forms of teaching and learning can differ to match student abilities: 10.5% of learners with disabilities and SHN are trained in separate groups from other students; 3.5% of students in this category are trained under individual study plans; and 0.56% are trained using distance learning alone.

Since 2016, steps have been taken to provide an accessible environment and physical infrastructure for inclusive training of persons with disabilities and SHN. As part of the 2011–20 Federal Programme for Accessible Environment, 49 model VET institutions with a mandate to support inclusive VET systems addressing the needs of students with disabilities and SHN in Russian regions have been set up and currently operate.

### C.2.3 Measures in support of equity in VET

See sections C.1.3 and C.1.4.

### C.2.4 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.

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

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

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

See also section C.2.2.

## 8. C.3: Active support to employment

### C.3.1 Employability of VET graduates

As of 2017, 61% of graduates who completed SVET in 2015 were employed. The following occupations had the highest graduate employment rates: nursing at 81.06%, clinical medicine at 80.22%, and pharmacy at 79.81%. The following occupations had average graduate employment rates: ground transportation equipment and technology at 61.79% and veterinary medicine and livestock farming at 61.62%. The lowest graduate employment rates were reported in occupations such as consumer goods manufacturing, visual and applied arts, and services and tourism.

SVET graduate employment rates vary across regions: there are low employment levels in the Republic of North Ossetia–Alania (30.42%), other republics of the North Caucasus Federal District, the Republic of Tyva, the city of Sevastopol and the Republic of Adygea (subsidised regions, with poorly developed economic infrastructure); while there are high employment levels in the Chukotka Autonomous District (80.6%), the Khanty-Mansi Autonomous District (73.01%), and the Sverdlovsk region (71.8%) (regions with thriving economies).

The average wage of graduates who completed SVET in 2015 and were employed in 2017 was 22 936 roubles. The highest wages were paid to graduates in SVET specialisations such as 'air navigation and operation of aviation and space technology', 'applied geology, mining, oil and gas and geodesy', and 'management in technical systems', which belong to the high-tech and mining sectors. Region-wise, the highest wages were paid to SVET graduates in the Chukotka Autonomous District, the Yamalo-Nenets Autonomous District, and the Magadan region.

## C.3.2 Economic factors with an impact on transition

The National Agency for Qualifications Development (NQDA) commissioned an analysis of problems with SVET graduates' employment. The implementing agency was the Interregional Association for Education Monitoring and Statistics (IAEMS).

According to the NQDA's findings, three out of four SVET graduates had difficulties finding employment; for half of them, the biggest challenge was the lack of prior work experience, and for a quarter it was the lack of available vacancies. One in three programmes for mid-level specialists (29.1%) who found a job in the specialisation they were trained for had to take additional training or retraining within the first three months of employment; of all SVET graduates, 38.6% of mid-level specialists and 40.5% of skilled workers cannot find a job according to their training and take other employment (NQDA, 2018).

Employers who are reluctant to hire SVET graduates tend to say it is due to the applicant's age or them not being sufficiently qualified for the job. See also section B.1.7.

## C.3.3 Overview of policies in support of employability and transition to employment

It was mentioned in B.1.7 that work is underway to update the list of VET occupations and specialisations and to develop a new format for education standards. These measures aim to harmonise the classifications used in the world of work and in the education system by updating the nomenclature of VET occupations and establishing direct links between these occupations and current workplace standards and qualifications.

The new format of the educational standard 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, SVET curricula can adapt their content to match a 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 workplace requirements.

The package of measures aimed at improving the VET system in 2015 to 2020 includes the following:

- consistent integration of a practice-oriented (dual) training model in SVET;

- implementing a package of measures focused on career guidance for school students and on provision of SVET by combining classroom learning with work-based learning;

- designing proposals to encourage the participation of employer representatives in boards of trustees and supervisory boards of VET providers.

The Action Plan for Enhanced Productivity and Creation and Modernisation of High-performance Jobs[4] provides for changes 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)[5].

The Young Professionals Federal Project aimed at making VET more competitive, which is part of the Education National Project, provides for modernisation of VET, in particular by implementing adaptive, practice-oriented and flexible programmes, over the period up to 2024.

### C.3.4 Career guidance

The following organisations provide career guidance to students, including general school students, current college students and graduates, in Russia:

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

The share of different types of career guidance providers and the range of services they offer vary across regions but their 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 school. The career guidance potential of various school subjects, including technology-oriented ones, is underused. Some schools offer career guidance courses, but more often these are limited to one-time events or series of activities (such as career guidance week). Colleges and universities offer activities which can be described as career guidance (i.e. open days, career tests for students, meetings with practitioners), but their main purpose is to increase enrolment. Attending WorldSkills championships and participation in WorldSkills Juniors competitions play a certain role in career guidance for school students, but their coverage in the latter case is very limited.

Some regions have a system in place to provide organisational, informational and methodological support and human resources to career guidance activities targeting school students. This is usually done through CVET providers (and in one case, in the Yaroslavl region, through a specialised centre for career guidance and psychological support established in 1987), subordinate to regional executive

[4] Government Order No. 1250-r of 9 July 2014.

[5] Government Order No. 302 of 21 March 2019 on targeted training in educational programmes of secondary vocational and higher education and recognition and invalidation of Government Order No. 1 076 of 27 November 2013.

authorities. Some other regions have set up a network of municipal and school-based career guidance centres, but often their work is merely nominal.

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 talent pool of capable and motivated young people.

Career guidance for adults is provided by a network of PES managed by the Ministry of Labour; they are regulated by the Ministry's instructions dating back to the 1990s[6].

The environment for career guidance in Russia is characterised as being 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 the Oryol and Pskov regions, having virtually no career guidance for school students. There is no central, government-led coordination of career guidance at federal and, in most cases, regional level (no regulations[7], licensing, certification and quality assessment of career guidance services or monitoring their impact on students).

Since 2018, at federal level, the Ticket to the Future career guidance project has been ongoing. 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 in grades 6 to 11 in 40 regions (47% of all Russian regions)[8]. The project's lead operator is WorldSkills Russia Union.

The main considerations 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.

[6] See Resolution of the Ministry of Labour and Social Development No. 1 of 27 September 1996 on the approval of the Regulations on the provision of career guidance and psychological support to the population in the Russian Federation; Administrative regulations on the provision of career guidance services (Order of the Ministry of Health and Social Development No. 680 of 1 November 2007).

[7] One exception is the Law of the Arkhangelsk region No. 387-26-OZ of 21 November 2011 on career guidance and assistance to youth employment in the Arkhangelsk region (adopted by the Arkhangelsk Regional Assembly of Deputies on 16 November 2011).

[8] According to the project targets. De facto, at least one phase of the project (primary professional diagnostics) in 2018 covered 187 921 people (2.5% of the total number in this target group).

# Building block D: Internal efficiency and operation of the VET system

## 9. D.1: Teaching and learning environment

### D.1.1 Teaching and learning methods, including work-based learning

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 proven effective in Russia and worldwide. 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:

1) apprenticeship with a company (dual VET for adults);

2) work-based practical instruction provided as part of a VET course for both young people and adults;

3) work-based training at dedicated, specially equipped workplaces run by a VET provider (e.g. workshops, laboratories, workplace simulation facility, practice ground, resource centre).

Generally, the third option works best for training in social and other types of services.

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

The currently used form of dual VET combines theoretical classroom learning 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).

The modular system combines modular training methods with a credit system which 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, and the use of simulation and modelling. 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.

VET teaching and learning methods focus on creating practice-oriented learning environments best suited for helping students develop both soft and technical competences.

### D.1.2 Teaching and learning environment

Outdated physical resources are a major challenge for VET providers. A series of steps have been taken recently to upgrade them in accordance with today's requirements.

Since 2016, modernisation of VET physical resources has been ongoing in Russia. In an increasing number of cases, VET providers train students using state-of-the-art production and laboratory facilities in line with international best practices. However, the steps taken so far are clearly not enough.

In 2019, 30.4% of all machinery and equipment used in VET has been updated in the past five years, compared to 26.5% in the previous reporting period.

However, upgrades of VET provider facilities to enable teaching of new-generation programmes have been inconsistent: in the period 2016-2019, 760 (19.6%) VET providers updated more than 50% of their physical infrastructure; however, 26.7% of the total number in Russia, did not upgrade their training and laboratory facilities.

VET infrastructure upgrades are financed from the public budget and extra-budgetary funds. According to the monitoring findings, 1 892 providers (48.7%) financed their modernisation from the public budget. In 2017, 1 573 providers (40.5%) used extra-budgetary sources to finance modernisation of their physical infrastructure. The proportion of extra-budgetary funds used to purchase machinery and equipment stood at 2.21% of all extra-budgetary expenses of education providers in Russia.

As a result of inconsistency in upgrading the physical infrastructure, there are significant variations across federal districts in how well equipped VET providers are to deliver training. VET providers in the Central Federal District have almost 30 500 roubles' worth of equipment per student, but in the North Caucasus Federal District, they only have 13 050 roubles' worth of equipment per VET student.

### D.1.3 Policies to improve training/teaching and learning methods in VET

The introduction of elements of dual VET with training partially conducted on employer facilities, 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 having training contracts with employers study in the following specialisations and occupations: driver of urban electric vehicles (40.8%), pyrotechnic products and technology (20.2%), and railroad construction and equipment (17.8%).

A total of 798 (17.1%) VET providers 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 the Chukotka Autonomous District.

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

### D.1.4 Improving the training and learning environment

Network-based programmes that benefit from integration and reasonable redistribution of resources available to individual VET providers, competence centres, resource centres, corporate training facilities

and others provide a mechanism that allows differences to be levelled out across schools in terms of teaching and learning conditions.

In 2018, the federal budget allocated 2.5 billion roubles to VET colleges and technical schools to create 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 system to train skills for an innovative economy.

Overall, 62 VET providers in 41 regions received grants from the federal budget to finance modernisation and upgrade of their physical infrastructure.

There have been examples of companies in the relevant economic sector participating as strategic partners in upgrading SVET provider infrastructure. However, the share of machinery and equipment (that is no more than five years old) donated by such companies to VET providers does not exceed 0.53% of the total value of equipment available to VET, according to the monitoring. Companies are providing this type of assistance to 36 (less than 1%) VET providers.

But overall, enterprises and organisations of relevant sectors have demonstrated their interest in VET by contributing to physical infrastructure upgrades of 71 VET providers.

Table 10: Source of funding for machinery and equipment for various types of businesses

| Targeted training based on the needs of potential employers in the labour market | Proportion of budget funds used to purchase machinery and equipment in all budget expenses, % | Proportion of extra-budgetary funds used to purchase machinery and equipment in all extra-budgetary expenses, % | Proportion of funds contributed by employers of the relevant sector in all funds used to purchase machinery and equipment, % |
|---|---|---|---|
| Small businesses and services | **2.23** | **1.91** | **0.81** |
| Providers of social benefit services | **2.93** | **2.19** | **1.35** |
| Large-scale industries | **3.42** | **2.26** | **1.67** |
| Town-forming enterprises[9] | **3.18** | **2.94** | **1.14** |
| High-performance sport | **0.95** | **0.55** | **0** |
| Cultural institutions | **0.99** | **1.25** | **0** |

Source: Russian Ministry of Education – Annual Report, 2018.

[9] A company that dominates employment in a town, e.g. a factory that employs most people.

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 high quality and accessibility of education of all types and levels. The total project budget is more than 79.8 billion roubles.

The infrastructure of the Russian Training Centre for Professional Excellence based at Smena Youth Centre will be updated by the end of September 2021.

In order to provide methodology support for VET, methodology associations have been set up at federal level and currently operate to perform the following functions:

- contribute to the drafting of education standards for SVET and provide methodology guidance for their implementation;
- organise expert assessment of draft model SVET programmes;
- provide research and methodology support of model SVET programmes;
- jointly with employer associations contribute to designing assessment tools to measure VET students' knowledge, skills and competences;
- contribute to designing professional development and retraining programmes.

Today, federal methodology associations in the SVET system engage successfully with sector skills councils, for example, to update the list of SVET occupations and specialisations, to bring educational standards in line with occupational standards, and to design model SVET programmes. See secion D.3.4 for details.

# 10. D.2: Teachers and trainers

## D.2.1 Composition of the workforce of VET teachers and trainers

The total number of full-time teachers and trainers employed in VET in Russia is 137 107 people, including 112 914 teachers and 24 193 trainers. In addition to this, 27 216 teachers and trainers (20%) are employed part-time or under external contracts.

The average age of VET teachers and trainers has slightly increased compared to the previous reporting period, to 46.5 years. The North Caucasus Federal District has the youngest VET workforce. Information on teachers and trainers is summarised in Table 11 below.

Table 11: Information on VET teachers and trainers

| Federal district | Average age of teachers and trainers, years | Share of external part-timers working in relevant organisations | Share of full-time teachers and trainers with at least 5 years' work experience with enterprises and organisations, no more than 3 years ago |
|---|---|---|---|
| Russian Federation | 46.5 | 0.93 | 5.67 |

| | | | |
|---|---|---|---|
| Central | 47.6 | 1.21 | 6.42 |
| Northwestern | 48.3 | 0.69 | 6.46 |
| Southern | 46.7 | 0.42 | 4.22 |
| Volga | 46.2 | 0.92 | 4.27 |
| Ural | 45.8 | 1.30 | 8.92 |
| Siberian | 45.7 | 0.96 | 5.99 |
| Far Eastern | 46.2 | 0.71 | 5.45 |
| North Caucasus | 43.9 | 0.81 | 4.23 |

Source: Russian Ministry of Education, Annual Report, 2018.

The nomenclature of teaching/training/supervisor positions in VET[10] and the professional standard 'teacher of vocational training, VET and CVET'[11] includes the following categories (positions):

- teacher
- trainer
- methodologist.

They can be promoted to positions of senior trainer, senior methodologist and deputy principal.

### D.2.2 Entering the teaching profession in VET

The professional standard for 'teacher of vocational training, VET and CVET' sets out the following requirements for entering the teaching profession in VET:

- SVET (mid-level specialist) or HE: a bachelor's degree in a field which is (usually) relevant to the taught subject, course or discipline (module);

or

- additional training based on SVET (mid-level specialist) or HE: professional retraining in a field which is (usually) relevant to the taught subject, course or discipline (module).

The teaching staff who do not have formal training in education/pedagogy need to take additional training in VET delivery methods; they can undergo such additional training after they have been hired.

In order to teach SVET disciplines (modules), teachers need to take additional training/professional development courses, which may include internships with organisations in the relevant professional field, at least once every three years.

[10] Government Decree No. 678 of 8 August 2013.

[11] 'Teacher of vocational training, VET and CVET' approved by Order No. 608n of the Ministry of Labour of 8 September 2015.

The teaching staff are required by federal law to undergo training and take a test in workplace safety.

It is recommended that teachers should take additional training in their field of teaching at least once every three years.

Work experience in the relevant professional field is required for teaching a SVET subject, course or discipline (module) which does not match the professional field of the teacher's own education/training.

Trainers providing practical instruction are required to have:

- SVET (mid-level specialist) or HE: a bachelor's degree in a field which is (usually) relevant to the professional field in which the trainer provides instruction;

or

- additional training based on SVET (mid-level specialist) or HE: professional retraining in a field which is (usually) relevant to the professional field in which the trainer provides instruction.

Trainers who do not have formal training in education/pedagogy need to take additional training in VET delivery methods; they can undergo such additional training after they have been hired.

In order to teach VET programmes, trainers need to take professional development courses, which may include internships with organisations in the relevant professional field, at least once every three years.

Trainers, as well as teachers, are required by federal law to undergo training and take a test in workplace safety.

It is recommended that trainers should upgrade their knowledge in their field of training at least once every three years.

Trainers are required to have work experience in the occupation they train. Trainers providing practical instruction must have a higher qualification level in the relevant occupation than that expected as a learning outcome of VET graduates trained in the programme.

### D.2.3 Employment status of teachers in VET

In Russia, there are two types of employment status in VET: full-time (staff teachers and trainers) and external part-timers otherwise working with employers in the relevant field. See details in D.2.1.

Most VET providers face a shortage of skilled teaching staff with work experience in the relevant field: such employees accounted for just 6.6% of the teaching staff in VET countrywide as of 2017. Region-wise, the highest proportion (9.1%) was reported in the Northwestern Federal District and the lowest (5.1%) in the Siberian Federal District.

The practice of part-time involvement of current employees of companies in the relevant field in teaching at VET institutions is not yet common. Such members of VET teaching staff do not exceed 2% in any federal district and make up less than 1% in the North Caucasus and Southern Federal Districts. A

possible reason may be the significant difference in salaries paid in enterprises and in education institutions.

### D.2.4 Quality of teachers and trainers in VET

Performance appraisal of VET teachers and trainers is based on professional characteristics detailed in the occupational standard for 'teacher of vocational training, vocational education and continuing vocational education' approved by Order No. 608n of the Ministry of Labour of 8 September 2015. This document is used to:

a) define the job functions of teachers and trainers providing vocational training, vocational education and continuing vocational education;

b) define the qualification requirements to guide the hiring of such teachers and trainers (or their transfer to other positions);

c) provide teacher and trainer assessment;

d) assess teacher and trainer qualifications;

e) offer training and professional development to teachers and trainers providing vocational training, vocational education and continuing vocational education.

Article 49 of the Law on Education provides for two types of teacher or trainer appraisals: a required assessment of their fitness for the job and a voluntary assessment which may result in awarding them 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 implement performance-based remuneration.

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

The 2018 monitoring reveals a fairly high rate of continuing professional development accessed by teachers. However, as before, certain training is not accessed often enough, such as internships at high-tech workplaces with leading enterprises and organisations, and advanced training in programmes in the relevant field of teaching, including ICT, in methods of teaching people with disabilities.

Since 2017 and the establishment of seven interregional competence centres and the Resource Centre for Vocational Training, Retraining and Continuing Training of the NQDA and WorldSkills Russia Academy, additional internship opportunities have opened up for VET teachers, directors and trainers providing practical instruction.

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

Russian regions have been developing a regional network for continuing education for SVET teachers, 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.

### D.2.5 Attracting and retaining teachers and trainers in VET

An effective tool for attracting and retaining teachers and trainers in VET is the professional standard. As noted in D.2.4, this document is used to define the job functions, provide assessment and evaluate qualifications of VET teachers and trainers.

In 2016, the Ministry of Education and Science (now the Ministry of Education), jointly with regional educational 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 established a direct link between VET trainers' professional performance and remuneration.

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

However, these tools and mechanisms have not been fully used so far and require further elaboration.

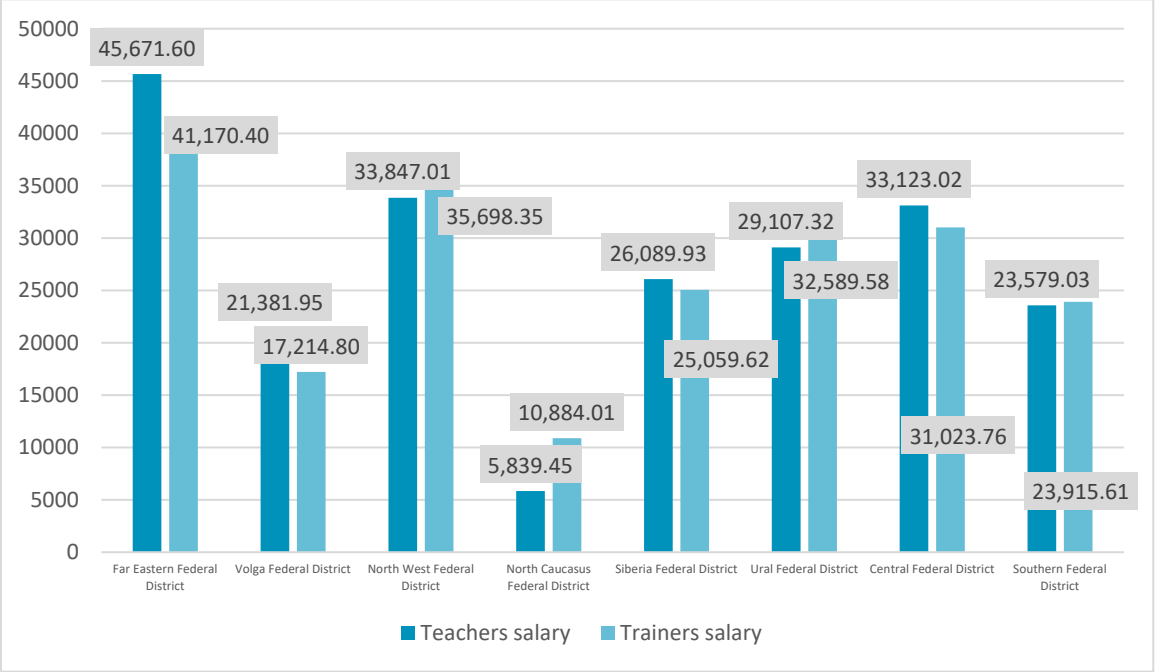
### D.2.6 Steering, motivating and supporting professional development

Paying adequate salaries is essential for teacher motivation. In 2016, the average monthly salary of SVET teachers was 24 574.9 roubles.

Steps have been taken to improve financial incentives for teachers. In particular, pursuant to Presidential Decree No. 597 of 7 May 2012 on measures to implement the state's social policy, efforts are underway to increase the average salaries of VET teachers and trainers to average pay levels in the respective region.

The average salaries vary significantly across federal districts. The highest salaries are paid to both teachers and trainers in the Far Eastern Federal District and the lowest in the North Caucasus Federal District. However, given the differences in socioeconomic development across regions, a direct comparison of salary levels is not informative, and the average regional salary has been used as a more reliable benchmark for targeted increases in teacher salaries.

Figure 5: Average salaries by region, roubles




Source: Russian Ministry of Education and Science, Annual Report, 2017.

In 2018, according to Rosstat, the average monthly salary of VET teachers and trainers increased compared to 2017 levels, from 32 200 roubles to 36 500 roubles (by 13.4%).

See also D.2.4 and D.2.5 above.

### D.2.7 Ensuring the quality of teachers in VET

Since the quality of training today is measured to a large extent by the results of professional skills contests, WorldSkills in particular, one would expect teachers to have the appropriate level of qualifications and training to help students achieve top results (Ministry of Education, 2017). However, the 2017 monitoring found that only about 1.5% of VET teachers and trainers in Russia hold a WorldSkills expert certificate.

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

## 11. D.3: Quality and quality assurance

### D.3.1 Quality and relevance of education and training content in VET

Since 2017, SVET providers have been offering training in accordance with the federal standards for SVET focused on advanced technology and international standards (SVET FSES TOP 50). The

proportion of VET providers offering training in the top 50 high-demand occupations which require SVET reached 71% in 2017 (2 756 colleges and technical schools)[12].

However, according to the monitoring results, the targets for participation in skills competitions were not met in 2017. While participation in the Young Professionals (WorldSkills Russia) competition is a noteworthy practice and Russian participants in international skills competitions often show top results indicating good training, these contests are for the best talents. Meanwhile, most VET students are not yet fully involved in professional skills competitions.

For the second consecutive year, SVET graduates in occupations from the top-50 list take a demonstration test which includes modelling of a real-life workplace environment in which graduates must perform in accordance with Russian and international best practices.

In 2018, more than 1 100 SVET graduates in the top 50 high-demand occupations completed training in accordance with the new SVET FSES and passed the demonstration test for their final exam.

In 2019, about 6 000 students who completed training in 22 occupations and five specialisations at 223 SVET institutions in 59 regions passed the demonstration test as part of their final exam, and some 50 000 students took this test as part of their intermediate assessment.

In 2020, about 40 000 students will take a demonstration test as part of their final exam, and more than 150 000 students will take it as part of their intermediate assessment.

For information on employment, see C.3.2 and Annex 1, Table A3.

### D.3.2 Defining the quality of learning outcomes

One of the objectives set in the package of measures to improve SVET in 2015–20 is to bring together the resources of industry, government and education in supporting the advancement of SVET. It means that employers are to be involved in managing the quality of VET programmes. By developing occupational standards, employers are engaged in setting their requirements for VET graduates' competences. Federal Law No. 122-FZ of 2 May 2015 on amendments to the Labour Code and to Articles 11 and 73 of Federal Law No. FZ-273 on Education in the Russian Federation requires that in terms of competences, FSES must be based on occupational standards. In addition to this, employers are involved via instruments such as public–professional accreditation of VET programmes and independent qualifications assessment. Alongside the above mechanisms, employer satisfaction with VET quality is monitored through surveys, such as those conducted by the World Bank, Higher School of Economics and National Agency for Qualifications Development.

[12] In the framework of the monitoring, the following occupations and specialisations are considered high priority: those from the top 50 high-demand occupations which require SVET, as established by Order of the Ministry of Labour No. 831 of 2 November 2015; from the regional top list in the consolidated plan of the priority project 'Training highly qualified specialists and workers based on modern standards and advanced technology' ('Human resources for advanced technology'), approved by the Project Committee for the main area of strategic development and the Education Priority Project (minutes of 20 December 2016 No. OG 6-302pr); implemented according to SVET FSES TOP 50.

Central to the approach to VET quality monitoring introduced by the Ministry of Education and Science in 2016 pursuant to presidential instructions are indicators which enable an objective assessment of VET graduates' learning outcomes. These indicators include results of regional and national skills competitions, and graduates' employment.

See secion D.3.3 for details.

In 2017, the Federal Law on Education in the Russian Federation was amended with provisions on independent education quality assessment. In accordance with Article 95, 'an independent assessment of the quality of education involves gathering information about teaching and learning activities, quality of student training, and implementation of educational programmes'. Independent assessment of the quality of education includes:

1) independent assessment of the quality of student training;

2) independent assessment of the quality of conditions created by education providers for teaching and learning activities.

Independent assessment of the quality of conditions for learning is based on general criteria such as openness and accessibility of information about education providers; a comfortable environment for teaching and learning activities; friendliness and politeness of employees; user satisfaction with the teaching and learning environment; and access for persons with disabilities.

Article 96 defines the general principles of public accreditation of education providers and public–professional accreditation of educational programmes.

## D.3.3 Quality assurance processes in VET

Quality assurance in VET takes place at federal, regional and institutional levels and involves quality assurance 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 for educational activities and audit procedures. State regulation of educational activities includes:

1) licensing of educational activities;

2) state accreditation of educational activities;

3) state oversight (supervision) in the field of education.

State accreditation is carried out by Rosobrnadzor or its regional counterpart. They assess whether the quality of educational programmes meets the requirements established by FSES.

The quality of SVET is monitored[13] pursuant to orders issued annually by the Ministry of Education 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' infrastructure and processes for training persons with disabilities and SHN. The 2018 monitoring was informed by available data and analysis of SVET providers, data from the Pension Fund, the Federal Register of Education and Training Certificates, and other sources.

The relevant regulations are available at www.miccedu.ru in the SVET monitoring section. See details of the monitoring results at http://miccedu.ru/monitoring/ (both in Russian).

Ongoing assessment and final state exams are still the main ways in which the quality of learning outcomes of SVET students is evaluated and assessed. However, these approaches are not currently considered adequate for an objective and reliable evaluation of the quality of learning. Therefore, the Ministry of Education has added demonstration testing as a new approach to final examination of VET graduates[14]. A demonstration test includes modelling of a real-life workplace environment in which graduates must carry out practical assignments in accordance with their profession. Test results are assessed by an examination board which includes, in addition to teachers, representatives of employers or their associations, and experts from the Young Professionals - WorldSkills Russia.

The demonstration test assignments are based on occupational standards (where relevant) and take into account relevant assessment guidelines provided by WorldSkills Russia.

SVET graduates who are winners of WorldSkills Russia or WorldSkills International competitions do not take a demonstration test but receive an excellent grade for the test by default.

Russian law also requires independent assessment of the quality of education which involves gathering information about teaching and learning activities, quality of student training, and 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.

No findings from independent education quality assessment can lead to suspension or revocation of a provider's licence or withdrawal of their accreditation.

[13] Pursuant to Federal Law No. 273 of 29 December 2012 on education in the Russian Federation and the package of measures to improve the secondary VET system in 2015–20, approved by Government Order No. 349-r of 3 March 2015.

[14] Order No. 968 of the Ministry of Education and Science of 18 August 2013 on the approval of procedures for final attestation in secondary VET programmes.

Russian law also provides for professional and public accreditation of educational programmes[15].

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) is available that contains a list of accreditation providers and details of programmes which have received accreditation. The register is operated by the National Qualifications Development Agency NQDA[16].

The details on accredited programmes include a summary indicating the programme title and its education provider.

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 making it possible to confirm that an applicant's qualification matches the occupational standard or qualification requirements established by federal laws and other applicable regulations[17].

Since 2018, the National Agency for Qualifications Development NQDA has been working on a project to apply independent qualification assessment as part of the final and intermediate accreditation of SVET students.

Graduates who successfully passed the exam received two documents: a SVET diploma and a certificate of qualification. These graduates are offered employment with a number of major companies such as SIBUR Holding, NOVATEK, KuibyshevAzot, Togliattiazot, Novokuybyshevsky Oil Refinery, enterprises of the military-industrial complex in the Urals, and the Caspian Energy group of companies, including the Astrakhan Shipbuilding Production Association.

In 2018, this pilot allowed the agency:

- to field-test the regulations and methodology for conducting intermediate and final professional exams;
- to develop a mechanism for using the results of independent qualification assessment for updating educational programmes and for offering professional development opportunities to VET methodologists, teachers and trainers;
- to boost VET graduates' employability; in particular, some VET providers have signed contracts with employers on hiring graduates with a certificate of qualification.

While there has been some progress in the development of professional and public VET quality assurance mechanisms, the government continues to play the dominant role in this sphere.

[15] Federal Law on Education in the Russian Federation No. 276-FZ of 29 December 2012 (as amended on 17 June 2019), Articles 95 and 96.

[16] National Register of Professional and Public Accreditation: https://nark.ru/poa/ (in Russian) accessed 10 July 2019.

[17] The independent assessment system is operated by the NQDA; see https://nark.ru/nok/ (in Russian) accessed on 10 July 2019.

## D.3.4 Creating and updating VET content

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 FSES and educational programmes in accordance with the applicable legal framework.

In 2019, the Ministry of Education approved updated model regulations for methodology associations in the SVET system[18]. Methodology associations have been 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 FSES and model educational programmes, and to coordinate the efforts of colleges and technical schools working to provide updated, high-quality SVET content. Methodology association chairs are appointed by federal or regional education authorities, and the chair convenes the association.

Methodology associations 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 contribute to the development of FSES and model programmes. 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 independent assessment of qualifications.

To facilitate the development of qualifications for certain types of occupations, the National Council has established councils for occupational qualifications based in sectoral/multisectoral employer associations or other types of organisations which bring together and/or represent relevant industries. Councils for occupational qualifications coordinate efforts to develop qualifications frameworks for specific types of occupations. An important role for the National Council and Councils for Occupational Qualifications (COQ) is to ensure that the education system receives consistent feedback from the world of work. In addition to this, councils enable each relevant professional community to come up with a consolidated position concerning qualifications requirements. Alongside efforts to develop occupational standards, work is now underway to compile lists of occupational qualifications (sector qualifications frameworks).

At the moment, methodology associations and COQs work together to propose new programmes or updates to existing programmes. Their collaboration in working groups and focus groups facilitates

[18] Order of the Ministry of Education No. 113 of 13 March 2019 on the approval of model regulations for methodology associations in the secondary VET system.

consensus, and they are also involved in research and systematisation of fast-changing labour market demand.

In 2017–18, methodology associations and COQs collaborated to update the SVET FSES in the top 50 occupations and to develop model programmes informed by occupational and international standards.

### D.3.5 Key European Union competences

Key European Union (EU) competences, such as literacy, foreign language skills, mathematics, science and technology, digital competence, social and civic competences, learning to learn, entrepreneurship and cultural awareness, are reflected in VET programmes via general competences (GCs) which are part of the required learning outcomes in Russia. GCs are the same for all SVET FSES and must be included as learning outcomes in all educational programmes:

GC 01. Choose approaches to performing professional tasks in a variety of contexts;

GC 02. Search, analyse and interpret information needed to perform professional tasks;

GC 03. Plan and pursue one's professional and personal development;

GC 04. Work in a team and interact effectively with colleagues, managers and clients;

GC 05. Communicate effectively in the Russian language, orally and in writing, as appropriate to social and cultural context;

GC 06. Exercise civic competence and patriotism, and demonstrate responsible behaviour based on traditional universal values;

GC 07. Contribute to saving the environment and resources, and act effectively in emergencies;

GC 08. Use physical exercise to maintain and improve one's health, including in the context of professional activity, and maintain a reasonable level of physical fitness;

GC 09. Use information technology in professional activity;

GC 10. Use documentation related to one's profession in Russian and in foreign languages;

GC 11. Use financial literacy and plan entrepreneurial activities in one's professional field.

### D.3.6 Policies to strengthen quality assurance

See D.3.3 and D.3.4 above.

# Building block E: Governance and financing of VET

## 12. E.1: Institutional arrangements

### E.1.1 Effectiveness of institutional and governance arrangements

The current institutional and management arrangements support effective functioning of the VET system. Enrolment in VET and popularity of SVET have been steadily growing; VET students demonstrate good results in skills competitions and relatively high employability (Ministry of Education, 2018).

The Education National Project currently serves as the main instrument supporting the VET system's development. Although the national project's budget accounts for about 5% of the total budget for education, its implementation is expected to produce synergy, including in the VET system. Work is underway to update the lists of SVET occupations and specialisations, CAVT are being created to serve as growth points for regional VET systems, and funds are allocated for upgrading VET physical infrastructure.

It is possible to build additional capacity in regional VET systems by removing certain restrictions in the law on budget. The current budget legislation requires that educational programmes must be financed from the budget of the region where they are located; financing them from the funds of other regions or from federal funds is not allowed. Education providers therefore cannot diversify their funding sources, and regions are left to 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 to Promote New Projects and the Young Professionals (WorldSkills Russia) Agency provide expertise, pilot new projects and test new approaches, for example to final examinations. However, the multitude of diverse governance decisions which are not necessarily well coordinated often leave education providers confused and disoriented.

Another important issue for VET providers is pressure from various supervisory authorities acting to enforce a large number of regulations issued by different government departments. Surveys of principals reveal that in some regions, numerous audits and inspections divert provider resources and time from the current and strategic activities.

### E.1.2 Accountability, leadership and control

In Russia, the VET system belongs mainly to the subnational (regional) level. VET providers are supervised by regional authorities, while the federal centre is responsible for national VET policymaking and implementation. At national (federal) level, the Ministry of Education has been responsible for VET governance and policymaking since 2018.

The federal Ministry of Education coordinates all activities in the field of education carried out by other federal and regional authorities and other actors in the education system. An 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 FSES 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 underway involving various federal and regional organisations and authorities (for example projects to set up Centers for advanced vocational training (CAVT) and to promote the WorldSkills Russia movement).

The Federal Service for Supervision in Education (Rosobrnadzor is responsible for the monitoring programme and provides compliance with applicable standards. In 2018, their status was raised, and now Rosobrnadzor reports directly to the government. Since public and professional assessment of VET programmes and providers is not yet sufficiently institutionalised, Rosobrnadzor is effectively the only body performing such assessment, alongside a number of selected regional organisations to whom Rosobrnadzor delegates this function.

At regional level, regional educational authorities are mandated to participate in VET policy and management. These are usually regional ministries or departments of education, reporting to the respective regional government. Tasks for the regional authorities include approving a budget for the VET system, determining the types of occupations which need to be trained in the region, and appointing VET school principals.

VET providers enjoy a high level of autonomy. At the level of public VET providers, the VET institution's management and policymaking are 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 management and policymaking. In private VET institutions, the board, usually consisting 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 provider's responsibility. In shaping the curriculum, providers must comply with FSES which take into account occupational standards. FSES establish requirements for programme outcomes, such as graduates' general and professional competences. They also specify 70% to 80% of the content of education, while the remaining 20% to 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 very responsive to the needs of employers, students and their 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 interregional engagement are available, little cooperation of VET providers across regions is taking place.

### E.1.3 Governance reforms

Since the preceding round of the Torino Process, no significant reforms to VET governance have been undertaken. Perhaps the most important event was the reorganisation of the former Ministry of Education and Science in 2018, when governance of the VET system was transferred to the newly formed Ministry of Education. As a result, the governance function is now divided, because VET in HE is under the jurisdiction of the Ministry of Science and Higher Education.

The Young Professionals (WorldSkills Russia) Agency has assumed a major role among VET development institutions; in particular, their guidelines, materials and trained experts have been used by VET providers to arrange demonstration testing for graduates. The WorldSkills movement also plays an important role in Russia by providing a networking platform for different types of VET providers. The competences that WorldSkills have developed are used by regional VET providers in delivering training.

Efforts continue to mobilise regional institutions to contribute to VET development, because the regional authorities alone cannot cope with the task on their own. The Young Professionals Federal Project envisions the establishment, by 2024, of at least 100 centres for advanced vocational training in the regions, and such centres are expected to promote the development of VET.

In 2016, the law on independent assessment of qualifications was adopted that institutionalised the key elements of the national qualifications system. As of 2019, 34 councils for occupational qualifications COQ) had been set up. Consisting of employer representatives, this body now plays an increasing role in formulating employer requirements for qualifications and content of VET.

## 13. E.2: Involvement of non-state actors

### E.2.1 Distribution of responsibilities between state and non-state actors in VET

The involvement of non-state actors in governance and policymaking in VET can be described as follows. While their participation is fairly active at the highest decision-making level, it declines dramatically at the provider level. Since governance in the VET system is led predominantly by the government, the involvement of non-state actors in decision-making is limited to consultative functions.

The WorldSkills Russia movement, founded by the authorities, has been particularly active in governance and policymaking in VET. Meetings and roundtable 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, educational institutions, experts and researchers, have been set up to advise the Russian President, the Ministry of Education and regional education authorities and 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 for these organisations is to make the VET system responsive to labour market requirements by drafting occupational standards and having them accepted, by contributing to discussion of educational standards and conducting independent assessment of qualifications. In 2016–17, the independent assessment system

experienced a development boom: 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 professional community participate in the discussion and adoption of VET development strategies and programmes, and FSES. They propose changes to the current inventories of occupations and specialisations. They also participate in the joint implementation of certain activities within the framework of federal projects.

Overall, the distribution of functions and responsibilities for development and implementation of VET policies between state and non-state actors is clearly biased in favour of the former. 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, it is not always transparent, and sometimes clear criteria for participation of non-state actors in certain projects and processes are lacking. As already mentioned, the role of non-state actors largely consists of providing advice and expertise for policymaking, while their direct contribution to VET policy implementation is low.

### E.2.2 Policies in support of participation of non-state actors

Since 2007, employer associations have been able to contribute to the development of educational standards and requirements, to making inventories of VET occupations and specialisations, and to the accreditation of VET providers and final assessment of their graduates. The national qualifications system has served as the institutional framework for engagement between employers and the education system. The main drivers of this system are the National Presidential Council on Vocational Qualifications, sectoral councils on vocational qualifications, and the National Agency for Qualifications Development (NQDA).

A number of regions have developed local practices of cooperation between large enterprises and public authorities through joint participation in regional programmes for educational development. Some regions, such as the Tambov region and the Republic of Tatarstan, have developed cluster-based management mechanisms. Councils set up to coordinate the clusters make decisions about the introduction of new occupations and specialisations, retraining and professional development programmes, educational quality assessment systems, and about building the most suitable innovation-focused infrastructure for VET.

The mining and manufacturing sectors have been the most active in terms of engaging with VET. Companies in the chemical and petrochemical industry, ferrous and nonferrous metallurgy, machine building and the automotive industry have also been more active than others in cooperating with VET colleges and technical schools. There have been success stories of engagement between companies of the military-industrial complex, such as Uralvagonzavod and Saturn, and VET providers. Recent studies have documented many examples of dual VET in the regions. The Agency for Strategic

Initiatives[19] and the NQDA[20] have been gathering and systematising information about such practices. Nevertheless, replicating and scaling up the best practices remains a challenge.

Participation of non-state actors at the enterprise level is still one of the weakest links in the employer–provider engagement. The reason is that businesses do not perceive investment in training future skills as feasible and are not protected from the risk that skilled employees may leave them for competitors. Although the legal framework provides for various forms of engagement between employers and VET providers, surveys indicate that none of these forms has been widely adopted. Developed countries, such as the United States, United Kingdom and South Korea, where the situation with the VET system and certain labour market institutions is similar to that in Russia, have adopted targeted policies to promote apprenticeships and workplace learning. No such policies have been adopted in Russia, except that the Young Professionals Federal Project provides for developing methodology guidelines for involving professional and business associations and business representatives in efforts to assist the development of VET providers and add to extra-budgetary funding of VET via public–private partnerships.

## 14. E.3: VET budget

### E.3.1 Expenditure planning, VET budget formation and execution

Over the past decade, the funding of VET has changed from cost-based to per capita-based financing. The cost of a training programme is calculated per student in the programme. Budgeted targets include both the direct costs of training and the costs of maintaining and updating the provider's infrastructure. Budget targets are calculated using various adjustment factors based on the provider's location, forms of training delivery, equipment used, presence of students with SHN, and other circumstances. In practice, regions face severe budgetary constraints. Studies which examined the actual expenses of education providers reveal that on average, the under-financing of announced state standards and targets amounts to 1.5% to 2% of GDP.

The amount of funds available to a provider depends on meeting the admissions targets set by the founder (the regional education authorities). These targets – generally and for specific occupations and specialisations – are based on demographic projections as well as current and projected employer demand.

[19] ASI database of best practices in human resources provision: http://www.wikiregstandard.ru/index.php/%D0%97%D0%B0%D0%B3%D0%BB%D0%B0%D0%B2%D0%BD%D0%B0%D1%8F_%D1%81%D1%82%D1%80%D0%B0%D0%BD%D0%B8%D1%86%D0%B0 (in Russian), accessed on 10 June 2019.

[20] Best practice database of the NQDA Base Training Centre: https://bc-nark.ru/best_practice/database/ (in Russian), accessed on 10 July 2019.

### E.3.2 Policies to improve expenditure planning and budgeting in VET

Both at federal and regional levels, work is underway to improve expenditure planning methods for VET programmes and methods for projecting future regional skills needs. In practice, these institutionalised methods have multiple, primarily financial, limitations.

## 15. E.4: Mobilisation of resources for VET

### E.4.1 Sources and mechanisms of funding for VET

Table 12 summarises the main sources of funding for VET.

Table 12: Funding available to VET providers by source of funding

| | Million roubles | | Percentages | |
|---|---|---|---|---|
| | 2015 | 2016 | 2015 | 2016 |
| Total funds | 199 814.8 | 238 079.7 | 100 | 100 |
| Public sources | 167 178.6 | 195 019.0 | 83.7 | 81.9 |
| *Federal budget* | *14 991.8* | *14 605.9* | *7.5* | *6.1* |
| *Regional budget* | *149 307.2* | *177 854.9* | *74.7* | *74.7* |
| *Local budget* | *2 879.5* | *2 558.1* | *1.4* | *1.1* |
| Funds from organisations | 7 750.3 | 12 179.9 | 3.9 | 5.1 |
| Funds from individuals | 21 706.1 | 27 517.7 | 10.9 | 11.6 |
| Extra-budgetary funds | 3 139.9 | 3 334.2 | 1.6 | 1.4 |
| Foreign sources | 39.8 | 29.1 | 0.01 | 0.01 |

Source: Bondarenko et al., 2018.

As noted earlier, the VET system is regionally governed and most of its expenses are covered from regional budgets. The federal budget finances VET programmes provided by HE institutions and any programmes implemented as part of national projects. As seen in Table 12, regional budgets bear the main burden of financing the VET system.

The main sources of additional funds for VET providers are CVET and vocational training programmes paid for by households and companies (individuals and organisations). The proportion of funds from organisations in the total revenue of VET providers has never exceeded 5%. The flow of extra-budgetary funds from households remains insignificant (ranging from 11% to 17%).

Analysis of budget spending on VET shows that between 2003 and 2014, such spending increased, in particular in 2014. However, in 2015–16, budget spending on VET stopped growing once it reached the level of 197.8 to 199.8 billion roubles. There was an increase by 2 024.4 million roubles (1.02%) in 2016 compared to 2015. In 2017, 212 million roubles was allocated to VET from budgets of all levels, or 6.5% of the total spending on education. Back in 2000, 11% of the education budget was spent on VET. Since the number of students in VET has been growing, even the increase in funding reflected in Table 12 did not lead to more spending per student: in 2015, the per capita spending was 99 600 roubles, and in 2016, it dropped to 96 200 roubles.

The current level of funding allows VET providers to function, but it is not sufficient for their development.

### E.4.2 Diversification and mobilisation of funding for VET

In terms of mobilisation of funding from households, 60% of Russian households, according to various estimates, cannot afford to finance or co-finance their children's education. Replacing budget funding of education with funds from households may lead to social tension. By looking at the living standards of most families of VET students, about 34% of students in training programmes for skilled workers (employees) and at least 25% of those in training programmes for mid-level specialists live in families which have difficulty paying for basic necessities such as food and clothing.

Compared to foreign companies, Russian enterprises tend to invest much less in training their employees. A major obstacle for many VET providers is the outdated and insufficient physical infrastructure, making it impossible to train students according to current standards. Although the Russian Tax Code allows companies to add the cost of training to 'other expenses', this measure has not yet motivated employers to spend more on employee training.

Under these circumstances, it is crucial for VET providers to access additional funds via the Young Professionals Federal Project. By participating in competitions arranged by the Ministry of Education, providers can update their training infrastructure.

## 16. E.5: Allocation and use of resources in VET

### E.5.1 Patterns of resource allocation

The Presidential Decree of May 2012 required that by 2018, salaries in VET should be equal to the regional average. In order to increase salaries under very tight budgetary constraints, the regional authorities cut other expenditure, such as for repairs and renovation, equipment and supplies. As a result, the share of salaries in the total spending on VET in 2017 was 71%. The updating of training infrastructure virtually stopped. According to 2016 data, only 1.55% of budget funds allocated to VET providers could be spent on purchasing equipment, and 29.1% of all VET providers have not updated their training and laboratory facilities in the past five years. By the end of 2016, the depreciation of machinery and equipment in SVET reached 76%.

The amount of budget funding available to VET providers depends on the financial situation in the region. In addition to covering the costs of training, these funds cover related expenses such as maintenance of property. Providers are paid different amounts in different regions to support their implementation of FSES, due to different levels of salaries, public utility tariffs and taxes. Differences in teacher salaries can illustrate regional inequalities in VET financing. In 2016, the average teacher salary was 5 840 roubles in the North Caucasus and 33 123 roubles in the Central Federal District.

Regions run their own programmes to support SVET by allocating funds to provider development. For example, 950 million roubles was allocated towards VET infrastructure repairs in the Novosibirsk region in 2019.

Another resource allocation pattern concerns differences in per capita financing by occupation. Particularly challenging is the situation with training in technology-intensive occupations which require sophisticated equipment and expensive materials, because the funding targets do not fully accommodate the complexity of such programmes compared to less expensive training in service specialisations, and both receive approximately the same level of funding.

## E.5.2 Policies to ensure adequacy of resources for VET and equity in their allocation

The procedure for calculating per capita financing of VET programmes provides for adjustment factors based on such things as location, forms of training delivery and number of students with disabilities.

According to the federal authorities, the Young Professionals Federal Project is designed to ensure adequacy and equality of resource allocation to meet the VET system's needs. Substantial funds are earmarked under this project to update VET providers' physical infrastructure and to set up specialised workshops and centres of advanced vocational training (CAVT). The project envisions creating 5 000 workshops by 2024, with a budget of 26 506 million roubles, and 100 CAVTs, with a budget of 4 512 million roubles. There is a strong emphasis on mobilising regional budgets in those regions which receive federal funds as a co-financing arrangement. It is expected to create a multiplier effect of attracting additional funds to regional VET systems.

# 2. SUMMARY AND ANALYTICAL CONCLUSIONS

Governance of the VET system in Russia belongs to the regional level and is led by the government authorities who finance nearly 75% of the VET budget. At the moment, VET providers continue to face resource shortages and difficulties maintaining and updating physical infrastructure. Regional budgets and the Young Professionals Federal Project serve as sources of funding for VET development. The federal project aims, as a priority, to help VET providers upgrade their physical infrastructure and acquire state-of-the-art equipment. However, the federal funds are not sufficient, while regions have unequal financial capabilities and cannot fully finance the needs of VET development. Over the reviewed period (starting in 2016), the amount of funding available per student has decreased. The share of teacher salaries in VET provider budgets has increased, with a corresponding decrease in funding allocated to other items. As a result, VET providers' fixed assets remain underfunded. Accessing other sources of funding is a problem due to the worsening financial situation of many households and enterprises.

In recent years, education providers have enjoyed a high level of autonomy. Non-state actors are involved in governance and decision-making concerning VET at federal and regional levels. In particular, employers and their associations now play a greater role in determining qualification requirements for future specialists. Despite positive progress in adopting and advancing quality assurance arrangements, such as the establishment 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 which may undermine the quality of VET, such as the following:

- poor incentives to encourage teachers to improve their performance, and to attract and retain teachers, including practitioners (employer representatives);
- predominantly government-led forms of education quality assessment;
- inadequate expert and methodology support available to colleges, technical schools and regional education authorities who need help with project management and with developing systemic approaches to training skilled workers and mid-level specialists;
- insufficient transparency of SVET statistics concerning the learning outcomes of SVET students and the proportion of students who require additional learning and training support, in addition to students with disabilities and SHN. The lack of transparency in such statistics makes it impossible to identify the issues and to design flexible, adaptive educational programmes and ways to build GCs (including entrepreneurship) with the VET system.

Priority objectives for the future include:

- facilitating measures to match SVET graduates' qualifications to labour market and employer requirements. Such measures may include new approaches to designing educational standards, strengthening the practice component of VET programmes, and encouraging various forms of workplace training (steps in this direction have been made in 2018–19);

- 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 (or add) internship opportunities for VET teachers;
- involving VET providers in activities planned under national projects, for example in providing training to labour migrants, persons of pre-retirement age, current employees and other categories to improve their capacity and employability;
- strengthening methodology services in the VET system at federal and regional levels.

For more details, see measures implemented and qualitative achievements in Annex 2: Process Assessment Report.

# ANNEXES

# ANNEX 1. QUANTITATIVE AND QUALITATIVE EVIDENCE

## Annex 1.1: Quantitative evidence

**TABLE A1: Torino Process (TRP) 19.01 Activity rate (age group 15–72, %)**

| | | 2016 | | | 2017 | | |
|---|---|---|---|---|---|---|---|
| | | Men and women | Men | Women | Men and women | Men | Women |
| 19.01 | Activity rate | 69.5 | 75.9 | 63.8 | 69.1 | 75.6 | 63.3 |

Source: Federal State Statistics Service (Rosstat)

**TABLE A2: TRP 19.02 Employment rate (age group 15–64, %)**

| | | 2016 | | | 2017 | | |
|---|---|---|---|---|---|---|---|
| | | Men and women | Men | Women | Men and women | Men | Women |
| 19.02 | Employment rate | 70.0 | 75.2 | 65.2 | 70.3 | 75.6 | 65.5 |

Source: Rosstat

**TABLE A3: TRP 19.03 Employment rate of recent graduates (employment of VET graduates as of 2018, %)**

| | 2016 graduation year | | | 2017 graduation year | | |
|---|---|---|---|---|---|---|
| | Men and women | Men | Women | Men and women | Men | Women |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 19.03 | Employment rate of recent graduates | 76.3 | 79.7 | 71.4 | 71.0 | 74.1 | 66.8 |

Source: Rosstat

**TABLE A4: TRP 19.04 Unemployment rate (%)**

| | 2016 | | | 2017 | | |
|---|---|---|---|---|---|---|
| | Men and women | Men | Women | Men and women | Men | Women |
| Age group 15–64 | 5.6 | 5.8 | 5.3 | 5.2 | 5.4 | 5.1 |
| Age group 15–72 | 5.5 | 5.7 | 5.3 | 5.2 | 5.4 | 5.1 |

Source: Rosstat

**TABLE A5: TRP 19.05 Youth unemployment rate (age group 15–24, %)**

| | | 2016 | | | 2017 | | |
|---|---|---|---|---|---|---|---|
| | | Men and women | Men | Women | Men and women | Men | Women |
| 19.05 | Youth unemployment rate | 22.0 | 20.55 | 24.3 | 21.55 | 20.05 | 47.6 |

Source: Rosstat

**TABLE A6: TRP 19.12 Students in vocational programmes (as a percentage of total upper secondary students)**

| | | 2016 | | | 2017 | | |
|---|---|---|---|---|---|---|---|
| | | Men and women | Men | Women | Men and women | Men | Women |
| 19.12 | Students in vocational programmes (as a percentage of total | No data | No data | No data | 41.6 | No data | No data |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | upper secondary students) | | | | | | |

Source: Klyachko, T.L. (ed.), *VET: a shorter route to labour market or a step towards higher education,* Russian Presidential Academy of National Economy and Public Administration, 2019. https://pps.ranepa.ru/Publication2/2019/b2f295b2-9a3f-4227-bf63-e8eef81d094f/7393de1f-7590-48ec-b62a-47e42b3ef630.pdf (in Russian) (last accessed 16 June 2019).

**TABLE A7: TRP 19.15 Public expenditure on education (as a percentage of total public expenditure)**

| | | 2015 | | | 2016 | | |
|---|---|---|---|---|---|---|---|
| | | Men and women | Men | Women | Men and women | Men | Women |
| 19.15 | Public expenditure on education | 10.2 | No data | No data | 9.9 | No data | No data |

Source: Higher School of Economics (HSE), *Education indicators*, HSE, Moscow, 2018.

**TABLE A8: TRP 19.17 Total population (million)**

| | | 2016 | | | 2017 | | |
|---|---|---|---|---|---|---|---|
| | | Men and women | Men | Women | Men and women | Men | Women |
| 19.17 | Total population | 146.5 | 67.9 | 78.6 | 146.8 | 68.1 | 78.7 |

Source: Rosstat

**TABLE A9: TRP 19.18 Relative size of youth population (age group 15–24): ratio of the youth population (15–24) to the working-age population (15–72)**

| | 2016 | | | 2017 | | |
|---|---|---|---|---|---|---|
| | Men and women | Men | Women | Men and women | Men | Women |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 16.18 | Relative size of youth population, age group 15–24: ratio of the youth population (15–24) to the working-age population (15–64) | 14.9 | - | - | 14.5 | - | - |

Source: Rosstat

**TABLE A10: TRP 16.20 Incidence of self-employment (%)**

| | | 2016 | | | 2017 | | |
|---|---|---|---|---|---|---|---|
| | | Men and women | Men | Women | Men and women | Men | Women |
| 16.20 | Incidence of self-employment | 7.5 | 8.6 | 6.4 | 6.6 | 7.7 | 5.4 |

Source: Rosstat

## Annex 1.2: Qualitative evidence

| Level | Main pathways towards attaining skills levels in the Russian Federation | ISCED* 2011 level |
|---|---|---|
| 1 | Short-term training or instruction, practical experience | - |
| 2 | Basic Vocational Education and Training (VET) programmes: training programmes in worker and service employee occupations, retraining programmes for industrial workers and service employees (usually a minimum of two months), practical experience | - |
| 3 | Basic VET programmes: training programmes in worker and service occupations, retraining programmes for industrial workers and service employees, professional development programmes for industrial workers and service employees (up to one year), practical experience | - |
| 4 | Secondary VET (SVET) programmes: training programmes for skilled workers (service employees)<br>Basic VET programmes: training programmes in worker and service occupations, retraining programmes for industrial workers and service employees, professional development programmes for industrial workers and service employees, practical experience | 4. Post-secondary non-tertiary education |
| 5 | SVET programmes: training programmes for mid-level specialists, training programmes for skilled workers (service employees)<br>Basic VET programmes: training programmes in worker and service occupations, retraining programmes for industrial workers and service employees, professional development programmes for industrial workers and service employees<br>Continuing VET (CVET) programmes<br>Practical experience | 5. Short-cycle tertiary education |
| 6 | Programmes of higher education (HE): bachelor's degree programmes<br>CVET programmes<br>Practical experience | 6. Bachelor's degree or equivalent |
| 7 | Programmes of HE: master's degree or specialisation programmes<br>CVET programmes | 7. Master's degree or equivalent |

| | | |
|---|---|---|
| | Practical experience | |
| 8 | Training programmes for teaching and academic staff: postgraduate (adjunct) programmes, residency programmes, assistant internship programmes<br>Programmes of HE: master's degree or specialisation programmes<br>CVET programmes<br>Practical experience | 8. Doctor (PhD) or equivalent |
| 9 | CVET programmes, practical experience, leading to Doctor of Science degree | - |

* ISCED: The International Standard Classification of Education.

# ACRONYMS

| | |
|---|---|
| **CAVT** | Centre for Advanced Vocational Training |
| **COQ** | Councils for Occupational Qualifications |
| **CVET** | Continuing Vocational Education and Training |
| **ETF** | European Training Foundation |
| **EU** | European Union |
| **FEDI RANEPA** | Federal Education Development Institute of the Russian Presidential Academy of National Economy and Public Administration |
| **FSES** | Federal State Educational Standards |
| **GC** | General Competence |
| **GDP** | Gross Domestic Product |
| **GUESSS** | Global University Entrepreneurial Spirit Students' Survey |
| **HE** | Higher Education |
| **HSE** | Higher School of Economics |
| **ICT** | Information and Communications Technology |
| **ISCED** | International Standard Classification of Education |
| **IVET** | Initial Vocational Education and Training |
| **MLSTP** | Mid-Level Specialist Training Programme |
| **NQDA** | National Qualifications Development Agency |
| **OECD** | Organisation for Economic Co-operation and Development |
| **PES** | Public Employment Services |
| **SHN** | Special Health Needs |
| **SME** | Small and Medium-sized Enterprises |
| **SVET** | Secondary Vocational Education and Training |
| **SWETP** | Skilled Worker and Employee Training Programme |
| **TRP** | Torino Process |
| **VET** | Vocational Education and Training |

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