

TORINO PROCESS 2014

RUSSIA



AUTHORS

Vladimir Blinov, Olga Zaitseva, Alla Faktorovich, Ekaterina Esenina, Hmayra Zagladina, Vyacheslav Sigunov, Ayrat Satdykov, Boris Belyavsky and Irina Zarubina

EDITORS

Natalia Zolotareva and Alexander Leibovich

The contents of this paper are the sole responsibility of the authors and do not necessarily reflect the views of the ETF or the EU institutions.

© European Training Foundation, 2015
Reproduction is authorised provided the source is acknowledged.

TORINO PROCESS 2014 RUSSIA

Contents

Executive summary	2
Introduction	4
1. Vision for the national VET system	5
2. Effectiveness and efficiency in addressing economic and labour market demand.....	12
3. Effectiveness and efficiency in addressing demographic, social and inclusion demand	16
4. Internal efficiency of the VET system	20
5. Governance and policy practices in the VET system.....	26
Annex: Structure and content of Russia's VET programmes in accordance with ISCED 2011 levels – A brief overview.....	32
Abbreviations and acronyms	33
Bibliography.....	34

EXECUTIVE SUMMARY

This report consists of a summary, five sections based on the framework recommended by the European Training Foundation (ETF), an annex providing a brief overview of the structure and content of Russia's vocational programmes in accordance with ISCED 2011 levels, and a list of references.

Section 1 outlines the key changes in the structure of the vocational education and training (VET) system and programmes in Russia over the past two years. It provides a brief description of the structure and content of Russia's VET programmes in accordance with ISCED 2011 levels. It also summarises the country's main objectives in terms of VET development as per the relevant policy documents; offers a review of the regulatory framework supporting the stated objectives; and evaluates examples of best practice in constituent regions (subjects) of the Russian Federation. On a scale of 1 to 5, according to findings from a specially designed survey, the VET system's capacity for innovation and progress in the implementation of strategy is rated at 3.7. The report also notes that, despite the relevance and timeliness of Russia's VET strategy and the development of applied qualifications and reported good progress in their implementation, challenges remain regarding innovation and the dissemination of VET providers' best practices across the Russian Federation. There is a need for better implementation of public-private partnerships and for independent assessment of the quality of education and training.

Section 2 reconstructs the broader context of Russia's economy, labour market, immigration flows, regional socioeconomic development and demographic trends. It outlines the key mechanisms used for monitoring the economy's current and projected demand for skills and for matching the content of VET programmes and the skills supply to the actual demand of the labour market. On a scale of 1 to 5, the progress made since 2010 is rated at a 3.

Section 3 focuses on demographic and socioeconomic indicators relevant to the structure and development of VET in Russia between 2008 and 2012.

Our analysis is based on Federal State Statistics Service (Rosstat) and World Bank data; our findings emphasise the role of Russia's VET system in meeting the country's objectives in the social, socioeconomic and demographic areas, and in advancing technology and innovation.

We note positive progress over the period under review in terms of financial and policy support for VET and in terms of expanding access to VET for people with disabilities. At the same time, we note persistent challenges, such as the low popularity of occupations in the consumer product-manufacturing sector and vocational schools' outdated technology and training facilities. On a scale of 1 to 5, we rate the progress made in addressing social and inclusion demand at between 3.0 and 3.5.

Section 4 discusses the regulatory framework and the current mechanisms of state regulation and external assessment of the VET system's internal efficiency and quality. It outlines the findings from surveys reflecting various stakeholders' satisfaction with VET. On a scale of 1 to 5, the progress made in this area since 2010 scores a 4. Positive outcomes include a greater emphasis on practice-oriented VET and public-private partnerships; the emergence of external assessment of VET quality; and the public and professional accreditation of VET programmes. Remaining challenges include a lack of adequate vocational guidance for school leavers.

Section 5 focuses on the distribution of responsibilities for policy development and implementation, management, supervision, VET quality assurance, VET provider licensing and the drafting of federal educational standards for VET among different levels of government, providers and employers. This section also presents data on the structure and amounts of funding available to VET providers. We note that policy and decision making in VET is led by the Russian Federation's Ministry of Education

and Science and by relevant executive authorities in constituent regions (subjects) of the Russian Federation. It also involves employers' associations, industry and expert communities. Since 2010, steps have been taken to improve the VET system's efficiency and transparency. However, more needs to be done to introduce mechanisms and procedures for external VET quality assessment, certification of qualifications and programme accreditation. Effective models for engagement and cooperation between VET providers and employers' associations are also needed to involve the latter in VET-related decision making and to create incentives for investment in VET.

The above analysis identifies the key prospective areas for developing Russia's VET system:

- develop mechanisms for implementing public-private partnerships at federal, regional and institutional level;
- create a shared space for VET methodology development (methodological guidance; teacher training, including internships; promotion of the World Skills Russia¹ movement);
- promote inclusive VET;
- develop a system to identify, support and assist talented youth in VET.

¹ Inspired by the World Skills movement, global hub for skills excellence and development (see www.worldskills.org).

INTRODUCTION

This report was prepared by the Interdepartmental Expert Working Group formed by the Russian Ministry of Education and Science's Department of VET and Continuing VET Policy and involving representatives of the National Training Foundation, the Department for Social Programmes at the International Bank for Reconstruction and Development, the Russian Union of Secondary VET School Directors, the HSE Institute of Education's Centre for University Management, the Federal Institute for Educational Development, the Skolkovo Business School's Centre for Educational Development and the Centre for VET Studies.

The report was drafted in several main stages.

- February 2014: Expert working groups were set up at the Russian Ministry of Education and Science and the Federal Institute for Educational Development.
- March-April 2014: Information pertaining to the report was collected.
- May-July 2014: The first version of the report was prepared. This was followed by internal discussion and consultations with the ETF expert.
- August-September 2014: Suggestions were collected from the Russian regions and regional VET and employment experts were consulted.
- September-October 2014: The second version of the report was drafted in coordination with the Russian Ministry of Education and Science's Department of VET and Continuing VET Policy.
- The draft report was then submitted to the ETF. Expert opinions were collected from the Russian regions and ETF experts.
- November-December 2014: The draft report was discussed and finalised and the final version was submitted to the ETF.

1. VISION FOR THE NATIONAL VET SYSTEM

1.1 Introduction to the VET system

The current structure of the VET system in the Russian Federation is set out in the Federal Law on Education in the Russian Federation (No 273 of 29 December 2012) and includes the features outlined below.

The initial vocational education and training (IVET) education level has been raised to that of secondary VET. 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; duration of VET is 2 years 5 months). ISCED classification: post-secondary non-tertiary education.
- Programmes for training mid-level professionals. Admission to such programmes is based on either nine years of general school (students aged 15 and above; duration of VET is 3 years 10 months) or 11 years of general school (students aged 17 and over, duration of VET is 2 years, 10 months). ISCED classification: short-cycle tertiary education.

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

- VET programmes, including vocational training, continuing vocational training and retraining programmes in worker and employee occupations. These are available to individuals aged 15 years and older who have completed general school; no prior VET is required.
- Continuing VET (professional development, retraining) programmes requiring at least prior secondary VET. Accessible to individuals aged around 20, but typical student ages range from 30 to 40.

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

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 Educational Development 2013-20;
- 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.

The pertinent secondary legislation also includes executive orders adopted by the Ministry of Education and Science to ensure the implementation of the Federal Law on Education in the Russian Federation, and the federal state educational standards for secondary VET.

Secondary VET programmes are implemented in institutes of higher education, technical schools and colleges. Vocational training programmes and continuing training programmes are implemented mainly in technical schools. Since 2012, a network of multifunctional centres for professional

qualifications (equivalent to the European competence centres) has emerged to expand the number of such programmes available.

The wide availability of higher education (61% of the population receive higher education in Russia, significantly above the Organisation for Economic Cooperation and Development (OECD) average) has a serious impact on VET: capable students tend to enrol in universities rather than in VET schools. Since 2012, the Ministry of Education and Science has been working consistently to raise both the admission criteria for institutes of higher education and the requirements pertaining to the quality and conditions of higher education. As a result, we expect enrolments in VET to increase. They had already begun to rise in 2013.

External factors likely to influence VET in Russia include the goal of moving Russia's economy towards a path of innovation-driven development by 2020. This objective was declared in the Strategy for Innovation-driven Development of the Russian Federation, launched in 2011. One of the strategy's key aims is to increase the share of industrial enterprises implementing technological innovations to between 40% and 50% of all industrial enterprises by 2020.

A number of Presidential Decrees adopted in 2012 contain other strategic targets for the labour market, such as:

- creating 25 million new high-performance jobs by 2018;
- achieving 1.5 increase in labour productivity by 2018 compared to the 2011 level (Decree No 597 of 7 May 2012);
- designing 800 occupational standards (Decree No 597 of 7 May 2012).

Russia has adopted a national qualifications framework: *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 Law on Education in the Russian Federation. A draft federal law, the Law on Independent Evaluation of Qualifications and Pursuant Amendments to Certain Legislative Acts of the Russian Federation, has been prepared and is now at public debate stage.

1.2 Vision for the VET system

A medium-term vision for the VET system in general is formulated in the State Programme for Educational Development 2013-20. The Presidential Decrees mentioned above set out policy priorities for the VET system, such as access to high-quality lifelong learning; consistency of the country's educational space; and openness in education. Some of the key targets to be achieved by 2018 include:

- increasing the salaries of VET teachers and workplace trainers to bring them in line with the average level of pay in the respective regional economy (Decree No 597 of 7 May 2012);
- increasing the proportion of employees aged 25 to 65 who have completed professional development or VET to 37% of total employees in the relevant age group (Decree No 599 of 7 May 2012);
- setting up 250 multifunctional centres for professional qualifications to provide an infrastructure for vocational training and CVET programmes (Decree No 599 of 7 May 2012).

Other targets include:

- creating the necessary conditions for inclusive VET (Decree No 599);
- establishing stricter quality requirements for higher education (Decree No 599 of 7 May 2012).

The VET policy priorities are reflected in the Strategy for the Development of the VET System and Occupational Qualifications by 2020, adopted in 2013 (referred to as the Strategy for the rest of this section). The goal of the Strategy is to develop a modern system for providing VET training and occupational qualifications, with sufficient capacity to:

- train skilled workers (employees) and mid-level specialists to meet the needs of the country's economy and society;
- respond to socioeconomic change;
- expand opportunities for different categories of the population to acquire relevant occupational qualifications throughout their working life.

To achieve this goal, the Strategy sets out a number of objectives:

- to ensure that graduates' qualifications match demand in the economy;
- to consolidate the resources of businesses, government and VET providers in developing the VET system;
- to create and broaden opportunities for different categories of the population to acquire relevant applied qualifications throughout their working life;
- to facilitate the successful socialisation and effective personal fulfilment of learners.

The following key principles underlie the Strategy's implementation:

- the leading role of public-private partnerships in VET delivery;
- the strengthening of the role of non-governmental organisations (NGOs) in the governance of the VET system;
- the internationalisation of VET.

The Strategy has integrated the key targets and priorities specified in a number of policy documents. These include the Concept of Long-term Socioeconomic Development; the Strategy for Innovation-driven Development; Presidential Decree No 597 and Presidential Decree No 599 of 7 May 2012 and the corresponding roadmaps for their implementation; the Law on Education; the State Programme for Educational Development 2013-20; and other policy documents issued by the Russian government.

Surveys conducted to study various stakeholders' views of the Strategy revealed that directors of VET institutions, students and teaching staff all find the strategic guidelines for the development of the VET system relevant (4.5 out of 5 on average) and agree with them (4.2 on average). Students tend to agree with the Strategy less than other stakeholders (3.8) and directors of VET institutions tend to agree more than others (4.6). Business representatives note that the main economic and labour market priorities are effectively addressed in the Strategy.

1.3 Capacity for innovation and change

According to the survey responses, the VET system's capacity to innovate, to adopt innovation and to strengthen leadership and ownership is based on a number of factors: the key role played by regional authorities; the high standard of qualifications of VET directors and trainers; the availability of incentives for innovation; and the resource base available to VET providers.

Experts assess that this capacity averages 3.7 out of 5; businesses assess it at 3.6, students have the highest assessment (4 out of 5), while VET directors and teaching staff assess it slightly lower (at 3.6 and 3.5, respectively). The lower assessment of the system's capacity for innovation and change is explained by the inequalities existing at all levels across Russia, which determine this capacity. According to expert estimates, only about 10% of all educational institutions have a high enough capacity (approx. 4.4) to innovate. Businesses share this opinion.

The key driver for innovation is the implementation of federal and regional programmes. Since 2007, a series of federally financed projects have been implemented to advance the country's VET system. To support ownership of the ideas set out in the Strategy, competitive funding has been provided to regions. This funding is part of the Federal Programme for Educational Development to integrate the Strategy's main objectives and activities in regional VET development programmes. As a result, 45 regions were selected to receive federal support in 2014-15 to develop their regional VET systems in accordance with the Strategy.

The capacity to use evidence and analysis to monitor and evaluate progress was assessed: an average of 4.0 on a scale of 1 to 5.

1.4 Drivers of innovation and change

The following are recognised as drivers of innovation and change:

- Presidential Decrees and roadmaps for their implementation;
- Federal Programme for Educational Development;
- involvement of research institutions in the development of a strategic vision and plans for the implementation of reform (such institutions include the Centre for VET Studies; the Higher School of Economics; the Federal Institute for Educational Development; the National Agency for the Development of Qualifications; and the Skolkovo Moscow School of Management).

The following are the main venues for presenting and discussing innovations in the VET system at federal level:

- the Global Education – Education without Borders Annual International Congress, held since 2012; its theme is 'Skilled professionals for the new Russia' and it focuses on the development of the VET system;
- regular meetings of regional education ministers hosted by the Ministry of Education and Science of the Russian Federation;
- the business programme of the WorldSkills Russia national competition;
- quarterly webinars for regional ministries and colleges (hosted by the Ministry of Education and Science's Department of VET and CVET Policy).

The following are the main venues for presenting and discussing innovations in the VET system at regional level:

- meetings for directors of VET colleges hosted by regional ministries with employers' participation in August each year;
- meetings of inter-regional VET councils in three federal districts (the Volga, Ural and Siberian federal districts);
- business programmes of the WorldSkills Russia regional competitions.

Examples of innovation and best practices reported by regions are listed below.

- All regional VET development programmes have been upgraded (with federal budget support).
- In 2012, Russia joined WorldSkills International. Since then, this movement has been actively growing throughout the country.
- Automated information systems consisting of two parts – the education provider's official site and the internal documentation – have been implemented and maintained in all Russian regions.
- Resource centres and occupational qualifications training centres (similar to the European competence centres) have been established in all Russian regions pursuant to the Presidential Decree.
- Internal quality management systems have been developed and implemented in a number of regions, including the Tambov, Irkutsk and Nizhny Novgorod regions and the Republic of Tatarstan.
- Multi-level and multi-disciplinary VET providers have been established and developed. For example, the Perevozsky Construction College (Volga federal district) offers more than 100 IVET, CVET and retraining programmes in occupations relevant to the local market. The Surgut VET college – winner of the European Quality Gold Medal – offers training in occupations for the oil, construction and energy sectors, and professional development and retraining programmes for Surgutneftegaz workers and specialists.

A growing number of regions have established territorial industry clusters and councils to facilitate public-private partnerships and networking between VET providers and employers. Examples include the aviation and space industry cluster and the livestock cluster in the Tambov region and the petrochemical research and production cluster in the Republic of Tatarstan.

Some examples of innovation-driven research and development are listed below.

- A project is underway to implement a credit system in VET (Centre for VET Studies).
- Efforts are underway to develop a concept for adult continuing education.
- A concept of institutional and educational support for career self-determination in the context of continuing education is being implemented. This is approved jointly by the Federal Institute for Educational Development and the Russian Academy of Education.
- An experimental model for institutional and educational support for career self-determination is being piloted in a number of regions (the Vologda, Kaliningrad, Kemerovo, Nizhny Novgorod, Penza, Samara, Saratov, Sverdlovsk and Irkutsk regions).

Projects implemented as part of international cooperation in VET deserve a special mention. The following activities were implemented within the framework of the Finnish-Russian network for cooperation in VET initiated by the Finnish National Board of Education:

- the VALO-2 Finnish-Russian project ‘Skills – key to quality and productivity’ or Proskills (St Petersburg);
- RUNAT, a project aimed at promoting entrepreneurship in agriculture and nature tourism (Karelia);
- a joint project between the Federal Institute for Educational Development and the Finnish National Board of Education to develop electronic educational resources.

Ongoing cooperation with Germany within the framework of the Russian-German Working Group on Vocational Education (under the aegis of the Ministry of Education and Science of the Russian Federation) focuses on two areas. The first area of focus is the creation of a VET model that includes approaches to career guidance, better educational processes, methodological support for VET programmes and the professional development of teachers and trainers. The second area of focus is on the introduction of a concept of mentoring in enterprises. This is done in a systemic project conducted by the Agency for Strategic Initiatives entitled ‘Vocational training addressing the needs of high-tech industries, based on dual education’. The project has been implemented in the Moscow, Kaluga, Sverdlovsk, Ulyanovsk, Yaroslavl, Volgograd and Nizhny Novgorod regions, the Krasnoyarsk and Perm territories and the Republic of Tatarstan. In June 2014, 59 VET providers were selected through a competitive process to implement federally funded, innovation-focused pilots to introduce elements of dual VET in the educational process.

1.5 Action and assessment of progress since 2010

In general, we assess the feasibility, relevance and timing of Russia's Strategy for the Development of the VET System and Occupational Qualifications as 4 on a scale of 1 to 5. In terms of an expert assessment, businesses believe that the VET system is quite capable of taking a leadership role in innovation and change. Similarly, staff working in the VET system are ready to implement innovations (their readiness is assessed as 4 out of 5 on average). Progress in the implementation of the Strategy is rated at 3.7, based on opinions expressed by the business representatives surveyed. While emphasising the relevance and good timing of the Strategy, they also noted the challenges of implementing innovation due to the slow updating of the material resources available to VET providers.

To date, a number of demonstrable achievements are apparent:

- the transition to competence-oriented federal educational standards and modular programmes and the adoption of a policy framework for their continuous improvement in line with the emerging system of qualifications;
- an increase in networking, public-private partnerships and cooperation between VET providers and businesses;
- the gradual adoption of internal VET quality management in conjunction with the establishment and expansion of external VET quality assurance and certification of qualifications;
- emerging new ways of making VET more attractive to young people;
- new options for professional development made available to teachers, and the availability of mentoring in the workplace.

Despite the progress made in each of these areas, none of the achievements can be considered final as long as challenges remain in each area. Such challenges relate to legislative, regulatory and methodological support, the sustainability of results and systemic implementation. Analysis of these challenges will inform policy making in VET over the coming years.

2. EFFECTIVENESS AND EFFICIENCY IN ADDRESSING ECONOMIC AND LABOUR MARKET DEMAND

2.1 Economic and labour market factors that shape the demand for skills

In terms of how the national economy and total employment breaks down according to sector, Russia can be described as a post-industrial economy.

TABLE 2.1 RELATIVE CONTRIBUTION OF SECTORS TO GDP (%)

	2009	2010	2011	2012	2013
Primary sector	13.2	13.5	15.1	14.9	14.8
Secondary sector	25.1	25.1	26.7	25.9	25.5
Tertiary sector	61.7	61.4	58.2	59.2	59.8

Note: Primary sector: agriculture, fishing and extraction industries; Secondary sector: manufacturing, construction, electricity, gas and water; Tertiary sector: commerce, transport and communications, education and health care, financial services, public administration and other services.

Source Rosstat

TABLE 2.2 EMPLOYMENT BY SECTOR (%)

	2009	2010	2011	2012	2013
Primary sector	10.3	9.7	9.7	9.3	9.2
Secondary sector	25.6	25.7	25.4	25.7	25.7
Tertiary sector	64.2	64.5	64.9	64.9	65.5

Source: Rosstat

Over the past five years, relative contributions have remained consistent at around 15% for the primary sector, 25% for the secondary sector, and 60% for the tertiary sector. The sectors' relative contributions to overall employment are approximately the same.

Key industries in the primary sector include extraction – mainly oil, gas and coal – accounting for 70% of the sector's gross national income, followed by agriculture, particularly grains. The secondary sector is led by the petrochemical and chemical industries, metallurgy and electric power generation. Wholesale trade, financial services, transportation and communications are central to the services sector.

The Russian government has adopted programmes to support the country's industries, including the aviation, electronics, shipbuilding, pharmaceutical and medical industries, until 2020. In recent years, the largest investments in fixed assets were made in industries such as transport and communications, manufacturing, defence, extraction and construction.

The public sector is a key player, since it employs up to 27.8% of the country's workforce. Publicly owned businesses (and businesses with strong government participation) account for almost half of Russia's economy.

The President of the Russian Federation has set the objective of creating 25 million high-performance workplaces and increasing the number of working-age population benefiting from CVET. This means that the VET system needs to promptly create and upgrade its training programmes to match labour market demand and to provide training and professional development options for those currently employed.

Population ageing is a major challenge. Russia's working-age population totalled 86 million at the end of 2013, or 60% of the total population. Even by Rosstat's most optimistic estimate, the working-age population in Russia will fall to 56% by 2030. A positive demographic turning point was observed in 2013, when the birth rate exceeded the death rate in Russia.

The country's production sector will experience increasing pressure with a progressive decline in the proportion of the working population. This challenge calls for the intensification of production through better technology, and research and development. Training centres for professional qualifications (similar to the European competence centres) were established pursuant to the Presidential Decrees. They are designed to provide fast-track training and retraining of workers for high-performance jobs. Intensive VET courses should expand the range of training options available to adult learners and should enable trainees to become multifunctional professionals capable of operating hi-tech equipment.

According to Rosstat's data of September 2014, the economically active population stood at 69.1% of the total population, with the employment rate at 65.7% and the unemployment rate at 4.9%. See **TABLE 2.2** for employment data by sector. Of the country's workforce, 18.4% are employed in retail, 14.1% in the manufacturing industry, 9.3% in transport and communications, and 9.3% in education. In terms of education, 31.8% of all currently employed individuals hold university degrees, while 44.8% have completed secondary or initial VET, and 23% have completed general school. In the unemployed population, 40.1% have no vocational training, 40.6% have completed initial or secondary VET, and 19.3% hold university degrees. The proportion of unemployed young people in the 20 to 24 age group is 12.4%, but it is substantially lower (5.2%) in the next age cohort of 25 to 29. A total of 1 048 000 unemployed individuals, or 28% of all unemployed people, have been looking for a job for more than 12 months; no significant gender differences have been observed in this respect.

The level of pay is a major challenge for the labour market, with significant differences across regions, industries and job positions (management, specialists and workers). The average salary in Moscow is double the national average. As of October 2013, the highest average pay was reported in mining, construction and transport, and the lowest in education, health care and agriculture. There is a difference of 15.8% in wages between the 10% of employees with the lowest pay and the 10% of employees with the highest pay, but the difference is decreasing.

Given the state of the Russian economy and the government's policies to support employment, we do not expect any major changes in the labour market in the coming years, other than some increase in employment in the manufacturing industry due to the implementation of the government's programmes. According to a long-term projection, employment will fall in the real sector and will increase in the services and retail sectors. This situation will require better planning by the VET sector to match the need for skills, engage with social partners to attract extra-budgetary resources and competences, and make additional efforts to develop and update CVET, professional development and retraining programmes.

2.2 Mechanisms for identifying demand for skills and matching skills supply

In Russia, employment and the labour market are monitored at regional and federal level. The relevant data is obtained from the public employment services (PES) and employment agencies, and from surveys conducted by selected research institutions and government statistical agencies. Information on vacancies and skills needed is published on the websites of regional PES. These vacancies are usually for skilled workers specifically requested by companies. Vacancies in health care, education and retail are also advertised. As of late June 2014, 77.8% of all job vacancies were for workers, mostly in manufacturing and construction. To meet the need, the PES have referred unemployed individuals to VET and CVET courses.

Methods used for forecasting skills needs help to determine the structure and scope of VET required at federal level and in individual regions. The findings from these forecasts inform the targets established by the government at federal and regional level. Unfortunately, in a rapidly changing economic environment (made worse by the fact that enterprises, particularly small and medium-sized enterprises (SMEs), are not used to long-term and medium-term workforce planning), substantial errors are inevitable. Therefore, new approaches to forecasting regional skills needs and setting VET targets are being considered at federal and regional level. Such approaches include the cluster-based approach used in the Tambov and Belgorod regions, the Republic of Tatarstan and in the Perm territory, for example, and the competences foresight used in the Krasnoyarsk territory.

Projects are underway to match the content of VET programmes to relevant occupational skills. These include a project to introduce elements of dual VET, implemented jointly by the Russian Ministry of Education and Science, the Agency for Strategic Initiatives and the Russian-German Chamber of Foreign Trade, and a project to promote WorldSkills Russia.

Offering proactive career counselling and guidance to school students is one way of matching skills to labour market demand. Significant progress has been achieved in this area over the past two years thanks to efforts by regional government ministries, employment services, VET colleges and businesses. In particular, regional and national WorldSkills Russia competitions include career guidance programmes for school students as a required component. A new type of skills competition (Junior Skills) has recently been added. More publications in the mass media now focus on depicting worker occupations in a more attractive light. Enterprises offer targeted career guidance programmes and activities in cooperation with VET providers. For example, projects that offer 'turnkey' training for specific available jobs have been implemented in the Perm territory and the Tambov region. These projects include career guidance in primary and secondary school; targeted VET programmes offered in senior grades of general school; enrolment in VET colleges for training in occupations that are highly relevant to the local market; early job placement; opportunities for additional qualifications; and subsequent employment.

According to official labour migration statistics, 1.15 million immigrants held work permits in Russia as of 2012. Experts estimate that labour migration to Russia may be in the order of 4.5 million, which includes both legal and illegal immigrants. Most immigrants are employed in commerce, construction, transport, housing and the utilities sector; 40% of them have no vocational training. Efforts are underway to attract skilled foreign workers. One example is the New Employment Programme, which encourages mobility from depressed areas to areas where there is a high demand for workers. Another is the Russian Language Programme, which is followed by a qualifying exam and helps foreign workers to become proficient in Russian.

The new Law on Education describes the mechanisms of interaction between VET providers and the labour market. For example, VET providers may update their curricula annually in response to employers' requirements (updates are introduced mainly in the variable parts of curricula designed in

conjunction with employers). VET providers may also set up structural subdivisions directly in enterprises, enabling a practice-oriented approach to learning. Employer-student agreements are another mechanism. In these agreements, employers offer students various incentives, such as tuition fees and rent or rent subsidy for the duration of the student's period of studies. The employer takes responsibility for managing the student's training and practice and undertakes to give the student the job position indicated in the agreement following the completion of the VET course.

2.3 Potential of the VET system to influence economic and labour market needs

The VET system's potential to influence economic and labour market needs is supported by research and development based on best practices and startups focused on future needs. This informs the development of relevant qualifications and competences.

Encouraging entrepreneurship skills is an integral part of modern VET. A number of federal and regional programmes, aimed at promoting entrepreneurship skills in young people and providing advice and grants to business startups, are ongoing in Russia. Promoting entrepreneurship skills among VET students and encouraging self-employment and startups is an important focus of Russia's Strategy for the Development of the VET System and Occupational Qualifications by 2020. At least 40% of VET providers promote entrepreneurship skills among their students. They do so by offering relevant courses, setting up training and production facilities, and assisting students in planning business startups, for example. In 2013, the PES offered this type of training to 20 100 people aged between 18 and 29. According to VET providers' reports, some 12% of their graduates are self-employed.

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 the relevant regional authorities, have set up centres for training 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. Best practices have been reported in this area, e.g. 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. A local project to promote agribusiness and education in the Tambov region combines the resources of rural schools, eight VET providers and the Michurin Agricultural University. Similar practices have emerged in other regions.

2.4 Action and assessment of progress in the period since 2010

Many of the challenges identified in Russia's Torino Process reports in 2010 and 2012 remain highly relevant. These include, for example, establishing a system for independent VET quality assessment by employers. Although partially provided for in the new Law on Education, in practice, this system is still at its early stages.

Russia's VET system consists mainly of public providers. According to experts, progress in this area since 2010 is ranked at 3 on a scale of 1 to 5. The three main priorities today for improving the responsiveness of the VET system to economic and labour market needs are as follows:

- creating a system for independent VET quality assessment by employers and NGOs;
- improving the system of qualitative and quantitative planning of regional needs for workers and mid-level specialists;
- creating the conditions for close cooperation between VET providers and employers in attracting financial resources to the VET system.

3. EFFECTIVENESS AND EFFICIENCY IN ADDRESSING DEMOGRAPHIC, SOCIAL AND INCLUSION DEMAND

3.1 Demographic and social factors that shape demand for VET

According to the 2010 national census, the population of the Russian Federation totals 142 946 788: 66 105 964 men and 76 840 824 women (hereinafter, we quote the official statistics available from the statistical committee of the Russian Federation – Roskomstat – and the World Bank).

Following the 2010 census, a positive demographic trend was reported in 2013, when the natural population increase (excess of births over deaths) was 22 913. According to the World Bank, after a drop observed in 2009 (141 910 000 compared to 141 950 000 in 2008), Russia's population increased to 142 389 000 in 2010, then to 142 290 000 in 2011, and to 143 533 000 in 2012. Data may differ depending on the source due to differences in the calculation method used.

Both the World Bank and Rosstat report a similar proportion of Russians aged between 15 and 24. They point to a decrease in the share of this age group in the country's population from 16.07% in 2008 to 13.44% in 2012. In 2013, the public employment services (PES) received applications from 1 925 000 job seekers aged 14 to 29 (compared to 2 106 500 in 2012). Of this figure, 71.8% or 1 382 300 eventually found employment (71.9% or 1 514 100 in 2012). During the same period, 804 900 job seekers aged 14 to 17 applied to the PES (842 400 in 2012). Of these, 94.6% or 761 300 found employment (94.8% or 798 400 in 2012).

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

The number of immigrants entering Russia exceeds the number of those who leave the country. According to Rosstat, net immigration totalled 158 078 in 2010; 319 761 in 2011; and 294 930 in 2012. Rosstat's data on internal migration between 2008 and 2012 reveals the following:

- 2008: 1 934 331,
- 2009: 1 707 691,
- 2010: 1 910 648,
- 2011: 3 058 520,
- 2012: 3 778 462.

3.2 Delivering to the individual demands and aspirations of learners: access, participation, progression

The objective of making quality VET inclusive and accessible for people with special needs and disabilities has been firmly placed on the educational agenda by Russian society and the government. According to the Ministry of Labour and Social Protection, Russia has approximately 13 million people with disabilities (special needs), of whom 70% are of working age. However, only 17% to 19% of them have a regular job. In 2012, the Russian Federation ratified the United Nations Convention on the Rights of Persons with Disabilities, thus making a commitment to provide inclusive education for people with disabilities at all levels, including VET.

The Law on Education contains new and essential provisions on education for people with disabilities or special needs, making inclusive education a requirement for all education providers. Presidential Decree No 599 provides for increasing the proportion of VET providers at secondary and higher level whose facilities are accessible and adapted for students with special needs and disabilities from 3% to 25% by 2020.

People with disabilities and special needs are currently enrolled in 56% of all VET providers. According to the Ministry of Education and Science, 14 251 people with disabilities and special needs were studying in secondary VET programmes at the time of writing in 2014. This is a 6% increase compared to the previous school year. Of this current figure, 4 272 are training in secondary VET occupations and 9 979 are studying secondary VET specialisations. In addition, 14 522 people with disabilities and special needs study on vocational training programmes. A total of 139 wheelchair users are currently studying in VET schools.

People with disabilities and special needs are studying all major groups of occupations and specialisations, in particular computer science and engineering (17% of all students with special needs and disabilities in secondary VET); economics and management (12%); construction technology (8%); nursing (7%); and industrial ecology, biotechnology and technology in light industry (6% each). The Ministry of Labour and Social Protection operates 11 VET institutions specially equipped for training people with disabilities. At the moment, they have 1 628 students in 29 secondary VET programmes.

Arrangements are in place to expand access to VET for other vulnerable groups. In particular, relevant provisions are contained in a number of government decrees: Resolution No 891 of 8 October 2013 On Establishing Educational Quotas for Foreign Citizens and Stateless Persons in the Russian Federation, and Resolution No 756 of 31 August 2013, which covers a pilot project scheduled to run between 2013 and 2015 to train mothers aged 23 and younger with one or more children in preparatory courses offered by federal universities.

Between 2008 and 2012, costs per student in secondary and higher VET were lower than those in general education. **TABLE 3.1** shows the cost in rubles (RUB) for the three systems.

TABLE 3.1 COST PER STUDENT BY EDUCATION SYSTEM, 2008-12 (RUB)

	2008	2009	2010	2011	2012
General school	55 261	56 401	52 867	61 348	69 826
Secondary VET	43 945	46 484	40 572	44 375	47 063
Higher VET	46 267	49 050	42 727	55 694	

At the same time, tools have been introduced to support the recognition of various forms of learning. This is reflected in the regulations on assessment and certification of qualifications of graduates of VET institutions and other categories of citizens who have completed various forms of vocational training (endorsed by the Russian Minister of Education and Science and the President of the Russian Union of Industrialists and Entrepreneurs on 31 July 2009, No AF-317/03).

The attractiveness of VET in Russia remains stable and shows a certain upward trend. This is due both to objective (i.e. growing competition in the labour market) and subjective (i.e. people choosing to avoid the complexities of the universal state exam in general school) reasons.

TABLE 3.2 TRANSITION TO NEXT EDUCATION LEVEL – PERCENTAGE OF STUDENTS

	2009	2011	2012	2013
From 9th to 10th grade	54.9	58.3	55.6	55.9
From 9th grade to initial VET	18.8	18.4	17.8	17.0
From 9th grade to secondary VET	29.8	31.5	32.0	34.1

Thus, in 2013, almost 56% of all general school students who had completed 9th grade went on to 10th grade in a general school. In the same year, 17% transitioned to IVET and some 34% moved on to secondary VET. The percentages do not add up to 100% (but always exceed 100%), since it is impossible to determine those who transitioned to VET after skipping one or more years, rather than immediately after general school. There is a tendency towards a stable increase in the proportion of general school leavers who transition to VET after the 9th grade. Their proportion has increased by 4.3 percentage points over the past five years.

According to the 2010 census (Rosstat), educational attainment of the population aged 25 and older is as follows:

- postgraduate VET: 0.6%,
- higher education: 22.8%,
- incomplete higher education: 4.6%,
- VET: 31.2%,
- IVET: 5.6%,
- general secondary education: 18.2%,
- general basic education: 11%,
- general primary education: 5.4%,
- general education less than primary education: 0.6%.

In the older generation, the proportion of people without VET is much higher compared to younger generations, i.e. the level of formal education increases with age.

3.3 Delivering to socioeconomic and inclusion demand

In the past five years, the demographic situation has been characterised by a decline in the working population in relation to disability.

The decline in industrial production in certain regions (including mono-cities, or single-industry cities) and its growth in others (including the development of innovation-driven industries) have contributed to internal migration.

Major discrepancies in socioeconomic development across Russian regions have largely contributed to this situation. Leading regional economies include Moscow, St Petersburg, Khanty-Mansi Autonomous District (Yugra), Tyumen, the Moscow and Sverdlovsk regions, and the Republic of Tatarstan. Regional imbalances cause an outflow of younger people to more promising areas, leading to shortages of skills in the periphery. The highest outflows are observed from regions located in the Siberian, Volga and Far Eastern federal districts.

The current popularity of education in finance and law and careers in administration, and the overall preference for non-productive sectors lead to major issues with social integration. The Ministry of Labour and Social Protection is currently working on the New Employment Programme, a state programme to train people of employable age in skills matching the demand of newly constructed or upgraded production facilities. The programme will subsidise the relocation of trained specialists between cities, thus supporting the internal migration of skilled workers.

According to Roskomstat, the ratio of the working population to those outside the workforce (i.e. economically inactive) has been shifting towards a decline in the working population and a corresponding increase in the non-working population:

- 2008: 0.51,
- 2009: 0.52,
- 2010: 0.52,
- 2011: 0.50,
- 2012: 0.48.

3.4 Action and assessment of progress since 2010

We assess progress in VET policy implementation since 2010 at between 3 and 3.5 on a scale of 1 to 5. The VET system's capacity for change and innovation in this area also stands at between 3 and 3.5. Currently, the three main priorities for improving the responsiveness of the VET system to demographic, social and inclusion demand and to changes in the social sphere are as follows:

- improve national and local mechanisms for forecasting skills demand, implementing systems of vocational guidance and advice and advertising training opportunities, and find employment in highly relevant occupations for the local economy;
- equip the VET system with state-of-the-art technology (including technology that is adapted for people with special needs) and training methods that meet the requirements of today's labour market and industrial production;
- complete the implementation of a system that independently evaluates VET quality, i.e. finalise, test and implement the necessary tools (documents stipulating the measurements used to assess student achievements in specific subject areas, as well as in meta-subject and personal competences, and the quality of education) and procedures for VET quality assessment and interpretation of the results in accordance with the federal state educational standards (FSES).

To advance the VET system's objectives in these areas, a number of steps have been taken. These steps address mainly the second priority listed above; the first and third priorities are yet to be addressed. They entail substantive reforms that formally bring the Russian VET system more in line with the systems in developed countries. Such reforms include the adoption of new legislation; the creation of a system for certifying VET providers in accordance with international standards; introducing competence-based FSES for VET; and integrating new principles for allocating funding to VET, thus moving from nominal criteria, such as the number of students, to learning outcomes, such as specific skills and competencies.

Further efforts will aim to improve and advance this activity in the future to respond to change and emerging new challenges.

4. INTERNAL EFFICIENCY OF THE VET SYSTEM

4.1 Quality assurance

Quality in education is defined in the Law on Education as a comprehensive characteristic of education and training. It reflects the compliance of education and training with the federal state educational standards (FSES), the federal government's requirements and/or the needs of the individual or entity for whose benefit the educational activity is carried out, including the achievement of the educational programme's expected outcomes.

Quality in VET is a comprehensive indicator. It integrates the quality of outcomes achieved by the educational process and the quality of conditions (such as human, educational, material and financial resources) invested in their achievement.

4.1.1 Planning

Planning and goal-setting pertaining to quality in VET is closely linked to the development of FSES describing the objectives and outcomes of educational programmes. However, FSES are provided only for basic (core) VET programmes. They establish requirements for programme outcomes, such as graduates' general and professional competencies. They also specify 70% of the content of education, while the remaining 30% (the variable part) is formulated jointly by the VET provider and employers.

In terms of hours allocated to theory and practical training, there has been a consistent trend towards more hours for workplace practice. An average of 15.7 hours were allocated to practical training in 2012; the figure for 2013 was 16.08. The Ministry of Education and Science has prepared amendments to FSES for VET. These allow providers to use the variable part of the curriculum not only to add to the theoretical part (as in the past), but also to increase the hours of practical training. This option is currently available for 28 VET occupations and specialisations.

In CVET and vocational training, providers themselves determine the learning outcomes and content, including theory to practice ratios, taking into account applicable occupational standards and other qualification requirements.

4.1.2 Assessment and evaluation

The quality of VET is evaluated and assessed mainly through state regulation, monitoring and the independent assessment of educational effectiveness. There has been a recent trend towards harmonising procedures for the monitoring of effectiveness and the state accreditation of educational activities. Such harmonisation is to be achieved by:

- including indicators used for accreditation in the monitoring;
- building an integrated information and analysis system to support decision making.

The results of quality assessment in VET are used in administrative decisions, such as issuing instructions to remedy ineffective aspects and allocating state-subsidised study places.

4.1.3 Accreditation of VET providers and programmes

Educational programmes implemented on the basis of FSES are subject to state regulation. This includes licensing, accreditation and the final attestation of graduates. The Federal Service for Supervision in Education (Rosobrnadzor) is responsible for monitoring compliance with these procedures.

Vocational training and CVET programmes are subject to professional, non-governmental, accreditation (provided by employers and sectoral associations) instead of state accreditation. In recent years, this type of accreditation has also grown in popularity for basic VET programmes.

Article 96 of the Law on Education and regulations on the professional, non-governmental, accreditation of educational programmes implemented by education providers create the legal framework for the independent assessment of the quality of educational programmes. It is endorsed by a joint resolution of Russia's two major employers' associations – the Russian Union of Industrialists and Entrepreneurs, and the Association of SME Employers. According to this framework, professional non-governmental accreditation is provided by employers and their associations or by organisations authorised by them. The objective is to establish whether VET programmes comply with occupational standards or, in the absence of such standards, with other qualification requirements.

Previously, professional, non-governmental, accreditation of educational programmes was provided mainly by a few select organisations. These included the Russian Association of Engineering Education, the Association of Legal Education and the Russian Medical League. Today, the necessary conditions are in place for a transition from local best practices to a comprehensive system for the independent assessment of VET programmes in line with current labour market requirements.

4.1.4 Qualifications

Voluntary certification has featured in some areas in the Russian system. In such cases, workers' qualifications are tested for compliance with international (Softline and Certiport testing in IT at university-based training centres), Russian (a system for the voluntary certification of managers) and corporate (a system for the certification of appraisers and appraisal firms) standards. These practices have expanded to certain Russian regions. The Samara region was one of the first regions to certify graduates of a regional VET system in the late 1990s. The Samara Centre for the Certification of Occupational Qualifications operated as a structural subdivision of the regional CVET Centre, a public provider. In 2005, within the framework of the international Educational System Reform project, a Centre for Voluntary Certification was set up as part of the Chuvash Republic Chamber of Commerce. Its purpose was to provide voluntary certification in the following occupations: VET trainer, cook, waiter and catering industry employee. In Novgorod, the Regional Centre for Certification of Occupational Qualifications, set up by the Novgorod Regional Centre for Educational Development and IVET resource centres, certifies IVET graduates applying for higher qualification grades than those established by the relevant educational standards. This centre provides certification in the following skills and occupations: repair and maintenance of electric equipment; assembly of sanitary systems and equipment; car repair mechanic; plasterer; mason; cook; pastry cook; and construction carpenter. In the Sverdlovsk region, certification centres are based in the relevant regional resource centres, including those set up as part of the Education Priority National Project.

Over the past two years, qualification certification centres have been set up in more than 50% of Russian Federation subjects. However, it appears that in most regional systems, qualifications assessment and certification services were set up by VET providers. While such providers, understandably, have considerable expertise in both content and testing methods, objective and reliable assessment can only be achieved when tests are administered by independent external experts recruited by authorised organisations. Thus, the upcoming draft amendments to the Labour Code and related legal acts pertaining to qualifications assessment specify that VET providers cannot serve as qualifications assessment centres. The best sectoral models for qualifications certification include those developed for welding, nanotechnology and project management.

The establishment of the National Presidential Council for Vocational Qualifications (Presidential Decree No 249 of 16 April 2014) and the Ministry of Labour and Social Protection's Draft Law on the Independent Assessment of Qualifications have further stimulated the development of independent VET quality assessment. Once a system for the independent assessment and certification of

qualifications is established, it will allow for the upgrading of the procedures used for the final attestation of VET graduates.

4.2 Policies for VET trainers and directors

The VET system's performance is determined by the quality of its human resources. Russia's VET system employs more than 220 000 teachers and trainers, including 50 000 trainers providing practical instruction. Almost all teachers and some 40% of trainers providing practical instruction have university level education. Moreover, 2.5% of all VET teachers and trainers hold academic degrees and titles. Requirements for professional VET teachers and trainers include prior experience of working for organisations in the relevant professional field and an internship once every three years. Trainers providing practical instruction must have a higher qualification level in the relevant occupation than that expected as a learning outcome for VET graduates. Most VET teachers and trainers (some 70%) are aged 30 to 60, and about 10% are older than 60. The majority of VET teachers are female.

A major factor discouraging younger professionals, including those in the real sector of the economy, from becoming VET teachers and trainers is the salary. Salaries in the VET system are usually below the average pay in the respective region. In 2014, they amounted to about 80% of the average wage paid in the respective regional economy. To address this problem, Presidential Decree No 597 of 7 May 2012 sets out a roadmap for increasing the average salaries of VET trainers to average pay levels in the respective regional economies by 2018.

A number of initiatives have also been adopted to strengthen the link between VET trainers' professional performance and remuneration.

1. A roadmap to effect changes in the social sphere aimed at improving the effectiveness of education and science; a programme to make gradual improvements in payroll systems in public (municipal) institutions between 2012 and 2018

The above initiatives require the consistent implementation of effective employment contracts with clearly defined job descriptions, performance indicators and criteria, and adequate remuneration for teachers and trainers. The Ministry of Education and Science led efforts to design and test such model contracts in 2013. Regional educational authorities, the Union of Workers in Education and Science and the Union of VET Directors were also involved. Based on the results of testing a model contract, guidelines were prepared for its implementation in the VET system.

Effective contracts will be signed with directors, teachers and trainers. To date, qualifications requirements for VET directors have been specified in the Uniform Qualifications Reference Book, which covers managers, specialists and employees. However, a new occupational standard has been drafted specifically for directors of educational institutions. Mandatory requirements for becoming a VET director include university level education in public and municipal administration, management or human resources management; at least five years' experience in teaching positions or in higher education and CVET in public and municipal administration, management or economics; and at least five years of teaching or administrative experience.

Directors' formal employers are the founders of their VET institutions, i.e. the federal or regional executive authorities responsible for the implementation of public policies in education. Directors' performance assessment takes into account the performance of their institutions. This approach is stipulated in the guidelines on creating incentives for VET directors by strengthening the link between the quality of the public (municipal) services provided by a secondary VET institution and the performance of its director (including the results of an independent assessment).

2. Procedures for the attestation of teachers and trainers employed by VET providers

Article 49 of the Law on Education provides for two types of teacher or trainer attestation (appraisal): a required assessment of their fitness for the job and a voluntary assessment which may result in awarding them the first or highest qualification category. The appraisal procedure is established by Ministry of Education and Science Order No 276 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 differential remuneration.

The implementation of the occupational standard (developed in 2013) for providing vocational training, vocational education and continuing vocational education, and the establishment of a system for qualifications certification are both considered necessary for improving the content and procedures for teacher or trainer appraisal. Opportunities for VET trainers to improve their performance depend on the availability of methodological guidance and support. According to a survey conducted in a number of Russian regions, the following are the most popular forms of methodological guidance for VET teachers and trainers: methodology panels (42%); professional development courses (34%); seminars (38%); courses for young professionals (30%); and individual consultations for teachers (25%). However, 15% of the teachers and trainers surveyed reported that they were not receiving any systematic methodological support.

According to VET teachers and trainers, they have sufficient time during their working day to prepare for classes and reflect on the teaching process (54% and 52% respectively). However, 56% of them reported not having enough time to share their teaching experience with colleagues in order to improve their competences in managing the teaching and learning process.

The system of professional development for teachers will be modernised by implementing module- and credit-based approaches. Financial incentives will be introduced to improve the quality of methodological support and continuing training available to VET teachers and trainers.

4.3 Teaching and learning

4.3.1 Teaching and learning environment

Upgrading school infrastructure on a regular basis to help it to respond to changing labour market needs and new production technologies remains a challenge for the VET system. VET providers mobilise the potential of public-private partnerships to solve this problem. The Education Priority National Project has provided significant incentives for public-private partnerships and regional educational development programmes have generated experience of such partnerships.

Since 2013, the Agency for Strategic Initiatives has been implementing a project to introduce elements of the dual VET system. Its implementation involves 10 Russian Federation subjects. This pilot project is expected to develop and field-test regulatory, financial and methodological resources to support and expand public-private partnerships. The Kaluga and Sverdlovsk regions are defined as mentor regions in this project, as they had already been developing effective practices for integrating dual training elements since 2010 and 2011, i.e. before the project started.

In 2010, with support from the Kaluga region's government and the Ministry of Education and Science, the Volkswagen Group Rus signed a cooperation agreement with the Kaluga College of Information Technology and Management, a secondary VET provider. As part of this public-private partnership, students sign trainee contracts with the company and receive scholarships during their period of study. In 2012, the programme produced its first group of graduates.

In April 2011, the Chelyabinsk Pipe Rolling Plant (CPRP), the Sverdlovsk regional Ministry of Education and Science and the Pervouralsk Metallurgical College signed a joint project agreement, resulting in the CPRP training centre which is now one of the largest VET centres in Europe. The company constructed a new building to accommodate the training facilities and equipped them with state-of-the-art training equipment and machinery. It has consistently engaged in training young professionals for the industry.

In the Yaroslavl region, the aircraft engine manufacturer Saturn and the Rybinsk Industrial and Economic College have cooperated successfully. A joint coordination board has been set up to advise the Yaroslavl regional Department of Education. Saturn has contributed RUB 5 million to the project. The company has also been involved in designing curricula and in managing the school. At a broader level, it has also participated in the implementation of the regional VET system. Its didactic approach is characteristic of the dual VET approach and is based on the premise that modern workers must be able to manufacture an item from a blueprint by independently producing a structured action plan specifying all technical parameters and processes.

The Republic of Tatarstan has set up a coordination council as a governing body for the science and education cluster. Big enterprises providing facilities for workplace training are directly involved in the educational process by contributing to the variable part of the VET curriculum. Some base enterprises have set up in-house departments in VET institutions. Special centres have been established to study the local need for skills and for providing voluntary certification of personnel employed in the research and education cluster.

Good practices have emerged in the Krasnoyarsk, Perm and Volgograd regions. These include forecasting skills needs, building vocational guidance systems, and certifying qualifications with the participation of employers' associations, educational and employment authorities, and regional administrations.

In an effort to disseminate best practices, the Agency for Strategic Initiatives and the Federal Institute for Educational Development have been visiting the regions where such projects are conducted. They deliver presentations and host methodology workshops to highlight and discuss interim results, problem areas and potential solutions with the project participants. To facilitate the sharing of experiences and to expand it to other Russian regions not currently involved in the project, the Federal Institute for Educational Development worked with the German Federal Institute for Vocational Education and Training (BIBB) and the Goethe-Institut in Moscow to create the VET Lighthouse website (www.prof-mayak.ru). The project's progress and interim results are reported from time to time on the Agency for Strategic Initiatives' website and in the print media. For example, a series of articles was published in the *Vocational Education* journal (Issue 11, 2014), in conjunction with the VIII International Congress Education without Borders (www.m-profobr.com).

4.3.2 Learning content

The quality of VET is determined, *inter alia*, by the quality of methodological support available to VET providers. The training content is reflected primarily in textbooks and teaching materials. The Law on Education does not require any prior review by educational experts of textbooks and teaching materials used in the VET system, and VET providers have a free choice in selecting them. Instead, the emphasis is on areas such as the professional, non-governmental, accreditation of educational programmes and the certification of graduates' qualifications.

VET system stakeholders assess the quality and relevance of textbooks and teaching materials as average (scoring 3.6 of 5). VET directors give it the lowest score of 3.4, and students give it the highest score of 3.7. According to employer representatives, the quality and relevance of textbooks do not always meet labour market and industry needs. This is because they fail to reflect the changes in

technology, work tools and equipment that have occurred over the last 10 years. Industry is not yet systematically involved in the drafting or assessment of VET textbooks.

The recent requirement that electronic educational resources should be made available to support the learning process could potentially improve the situation. Projects aimed at creating such resources are currently underway as part of a targeted federal educational development programme. The Presidential Commission for Modernisation and Technological Development has endorsed this activity.

4.3.3 Parental involvement

Parental involvement in VET quality assessment has been part of the effort to develop mechanisms for public-private management of the VET system. Parental involvement is supported via structures such as supervisory boards and councils in educational institutions. The role of parental involvement will increase with the establishment of a system for the independent accreditation of educational institutions.

4.4 Efficiency of use of resources

Efficiency of the use of resources in the VET system is monitored via standardised periodic surveys. These surveys examine the status of education and the dynamics of the results achieved; education and training conditions; types of students; their academic and extracurricular achievements; the careers of VET graduates; and the status of VET provider networks. As part of this monitoring, VET providers conduct self-assessments based on procedures and indicators approved by the Ministry of Education and Science. These procedures include reviews of the learning outcomes and of the VET provider's financial and business performance and infrastructure.

4.5 Action and assessment of progress since 2010

According to experts, the progress made by the VET sector since 2010 in relation to policy implementation in the sphere of internal efficiency and the quality of VET delivery can be rated at 3.5 on a scale of 1 to 5. Positive results are associated with a stronger emphasis on practice-oriented VET; better material resources (such as training facilities and laboratories); and the government's focus on public-private partnerships in the VET system. Experts consider that the current challenges and problems include the low popularity of VET among secondary school graduates; a lack of financial incentives for successful students (such as a differentiated system of scholarships); and a partial mismatch between the training received by VET graduates and workplace requirements (such as new technology, work methods and equipment).

5. GOVERNANCE AND POLICY PRACTICES IN THE VET SYSTEM

5.1 Defining vision and strategy for VET

At national (federal) level, the Ministry of Education and Science is mandated to participate in VET management and policy making. The ministry can consult with other government authorities, employers' associations, research and educational institutions. These usually include relevant government ministries, the Agency for Strategic Initiatives, the Russian Union of Industrialists and Entrepreneurs and the Russian Chamber of Commerce and Industry. Meetings and roundtable discussions are conducted from time to time between officials of the Ministry of Education and Science and other ministries and representatives of Russia's largest companies and research institutions. Advisory councils and commissions, including representatives of employers' associations, educational institutions, experts and researchers, have been set up to advise the Russian President, the Ministry of Education and Science and regional educational authorities to participate in the development and implementation of educational policies.

At regional level, regional educational authorities are mandated to participate in VET policy and management. These are usually regional ministries or departments of education, but some regions assign this role to the regional Ministry of Labour. 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 have developed cluster-based management mechanisms, e.g. the Tambov region and the Republic of Tatarstan. 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-based infrastructure for VET.

At the level of public VET providers, management and policy making are the functions of the director and a collective body of staff working in the VET institution. Some providers also have supervisory boards or trustees involved in management and policy making. In private VET institutions, the board, usually consisting of the institution's owners, performs these functions. It is important to note that by law, education providers must have their development programmes approved by the founder.

The Federal Ministry of Education and Science coordinates all education activities carried out by other federal and regional authorities and other actors in the education system.

MATRIX 1 DISTRIBUTION OF RESPONSIBILITIES FOR THE FORMATION OF A MEDIUM- TO LONG-TERM STRATEGY FOR THE VET SYSTEM, ITS IMPLEMENTATION AND THE MONITORING OF PROGRESS

Process/type of responsibility	Objective setting	Implementation	Monitoring
Who is responsible?	Ministry of Education and Science Regional educational authorities	Ministry of Education and Science Regional educational authorities VET providers	Ministry of Education and Science Regional educational authorities Federal Service for Supervision in Education and Science
Who is accountable?	Ministry of Education and Science Regional educational authorities	Ministry of Education and Science Regional educational authorities	
Who is consulted?	Ministry of Labour and Social Protection Ministry of Economic Development Ministry of Industry and Trade Relevant regional authorities Employers' associations Academic institutions Education providers	Ministry of Labour and Social Protection Ministry of Economic Development Ministry of Industry and Trade Relevant regional authorities Employers' associations Academic institutions Education providers	
Who is (only) informed?			

MATRIX 2 MODE OF ACTION/DECISION MAKING OF THOSE RESPONSIBLE FOR THE FORMATION OF A MEDIUM- TO LONG-TERM STRATEGY FOR THE VET SYSTEM, ITS IMPLEMENTATION AND THE MONITORING OF PROGRESS

	Objective setting	Implementation	Monitoring
Full autonomy/unilateral	Ministry of Education and Science Regional educational authorities	Ministry of Education and Science Regional educational authorities VET providers	Ministry of Education and Science Regional educational authorities Federal Service for Supervision in Education and Science
After (obligatory) consultation ¹	Presidential Administration Russian government	Presidential Administration Russian government	Presidential Administration Russian government
If consultation, with whom?	Ministry of Labour and Social Protection Ministry of Economic Development Ministry of Industry and Trade Relevant regional authorities Employers' associations Academic institutions Education providers	Ministry of Labour and Social Protection Ministry of Economic Development Ministry of Industry and Trade Relevant regional authorities Employers' associations Academic institutions Education providers	Ministry of Labour and Social Protection Ministry of Economic Development Ministry of Industry and Trade Relevant regional authorities Employers' associations Academic institutions Education providers

(1) Consultation could be both because of an obligation to involve and for accountability purposes.

5.2 Effectiveness and efficiency in addressing economic and labour market demand

Responsibilities for identifying labour market demand are assigned to the Federal Ministry of Education and Science, Federal Ministry of Labour and Social Protection and relevant executive authorities in the regions (subjects) of the Russian Federation. In some regions, employers' association (e.g. the Chamber of Commerce and Industry in the Perm region) collect this type of information. Other entities engaged in identifying and matching skills demand with supply include public employment services, recruitment agencies, and research institutions and government statistical agencies as part of sociological surveys.

The Federal Ministry of Education and Science and relevant regional educational authorities coordinate efforts to match the content of VET programmes with relevant occupational skills. A number of projects are underway involving various federal and regional organisations and authorities. Examples include projects to introduce elements of dual VET and to promote the WorldSkills Russia movement described in Section 2 of this report.

Regional projects and programmes are ongoing in a number of federal subjects. Actors contributing to career guidance for school students include regional government ministries, employment services, colleges and enterprises. Career guidance is also an integral component of the WorldSkills Russia regional and national competitions. Enterprises offer targeted career guidance programmes and activities in cooperation with VET providers.

5.3 Effectiveness and efficiency in addressing social and inclusion demand

A number of ministries share responsibilities and decision making when it comes to addressing the aspirations and needs of learners participating in the VET system, including those with disabilities and special needs, those from disadvantaged groups and vulnerable populations (e.g. foreign nationals, women, and unemployed individuals). These ministries are the Ministry of Education and Science and the Ministry of Health (jointly responsible for people with disabilities and special needs); the Ministry of Labour and Social Protection and the Ministry of Education and Science (jointly responsible for the rest of the above groups).

The federal government makes decisions on certain issues. Section 3 of this report lists examples of Government Orders and the issues that they govern. Regional authorities and VET providers are responsible for providing adequate support to students at risk and those struggling academically. The needs of all the above student groups are also addressed by relevant government-initiated and government-financed support programmes and by NGOs.

5.4 Internal efficiency and effectiveness of the VET system

Setting standards for quality in the VET system is closely linked to the development of federal state educational standards (FSES). These describe the objectives and outcomes of educational programmes. FSES are provided only for basic (core) secondary VET programmes. They establish requirements for the outcomes of educational programmes, such as graduates' general and occupational competencies, and for 70% to 80% of the content of education. The VET provider, together with employers, formulates the remaining 20% to 30% of the content (variable part). Employers' associations and NGOs are involved in the development and review of FSES. FSES are subject to approval by the Ministry of Education and Science's Council on Education Standards, acting in consultation with employers, academic institutions and NGOs. The Law on Education stipulates that occupational standards should be taken into account in designing FSES and curricula for the VET system. Presidential instructions issued by the Russian President following a meeting held on

9 December 2013 to discuss the development of occupational standards set the objective of updating FSES based on occupational standards.

The Federal Service for Supervision in Education and Science is responsible for monitoring VET for compliance with FSES. It does so in particular by using procedures such as state accreditation of education providers and supervision of educational activities. VET-specific FSES inform the development of VET curricula. The rules for the development, approval and application of occupational standards require that occupational standards be applied in developing VET curricula.

The content of CVET programmes should be informed by occupational standards and qualification requirements specified in qualification reference books for relevant positions, occupations and specialisations (FSES, Article 76, part 9). Retraining programmes should be informed by qualification requirements, occupational standards and requirements established by relevant FSES, which specify learning outcomes for secondary vocational and/or higher education (FSES, Article 76, part 10).

MATRIX 3 DISTRIBUTION OF RESPONSIBILITIES FOR QUALITY STANDARDS

	Responsible for setting	Accountable for compliance	Monitoring and assessment
Quality standards: learning environment	Ministry of Education and Science	Education providers	Federal Service for Supervision in Education and Science Regional executive authorities responsible for educational policy Centres for certification of qualifications
Quality standards: learning outcomes			
Quality standards: teaching	Ministry of Education and Science Ministry of Labour and Social Protection	Education providers	Federal Service for Supervision in Education and Science Regional executive authorities responsible for educational policy Education providers
Standards for provider ¹ accreditation	Ministry of Education and Science	Education providers	Federal Service for Supervision in Education and Science Regional executive authorities responsible for educational policy NGOs

(1) This can also refer to individual programmes.

MATRIX 4 MODE OF DECISION MAKING WHEN SETTING QUALITY STANDARDS

	Unilateral	Obligatory consultation	If consultation, with whom
Quality standards: learning environment		√	Ministry of Education and Science, jointly with Ministry of Justice and relevant federal executive authorities
Quality standards: learning outcomes			Regional executive authorities responsible for educational policy Employers and their associations Educational methodology associations
Quality standards: teaching		√	Ministry of Education and Science Ministry of Labour and Social Protection Regional executive authorities responsible for educational policy Employers and their associations Education providers
Standards for provider ¹ accreditation		√	Ministry of Education and Science Federal Service for Supervision in Education and Science NGOs

(1) This can also refer to individual programmes.

MATRIX 5 RESPONSIBILITY FOR CURRICULUM CONTENT AND TEACHING STANDARDS

	Responsible for determining	Obligatory consultation	If consultation, with whom
Curriculum content	Education providers	√	Employers' representatives
How curriculum is taught	Education providers Teachers Workplace trainers		

The budget for VET is formed from both budgetary and extra-budgetary revenues. Regional budgets are the main source: in 2013, federal allocations to VET stood at RUB 16 billion, while consolidated regional allocations stood at RUB 199.4 billion². Funds from the federal budget are used to support the development of regional VET systems, while regional funds cover the costs of property maintenance, teacher salaries, student scholarships and other current and capital expenditures.

Public VET providers are financed based on the government's terms of reference. The respective regional Department of Education makes decisions on the funding allocation based on a per capita

² Minus the expenditure on VET programmes in higher education institutions.

approach: the subsidy amount per student is determined based on the complexity of the programme and format of study. In 2011, the average funding per student was RUB 47 062.

In 2010, public VET providers were mainly funded by government (public) sources (84.8%). The rest was contributed by private sources, including individuals (75.5%) and organisations (21.4%). Private VET providers receive 90% of their funding from private sources. Federal funding is allocated to regional providers as part of the targeted federal educational development programme to subsidise the following activities: developing regional VET systems; strengthening basic providers of initial and secondary VET; and enhancing regional VET development programmes based on the lessons learned from their implementation.

The overly centralised approach to governance in the VET system, characteristic of the Soviet era, has now changed. The Ministry of Education and Science and relevant executive authorities in Russian regions lead policy making and decision making in VET, while employers' associations, industry and expert communities participate in the process. Members of the expert communities 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 and regional educational development programmes. In recent years, one of the key areas of cooperation between employers and government authorities has been the elaboration of a system for accrediting VET programmes.

5.5 Assessment of progress since 2010

Since 2010, steps have been taken to establish effective management of the VET system.

- Supervision over most VET providers has been delegated from federal to regional level to enable the creation of modernised regional VET systems and to bring them closer to local labour markets.
- New legal formats have been adopted for VET providers, establishing them as state-owned, budget-funded and autonomous institutions.
- New infrastructure providers have been set up within the VET system, including resource centres, multipurpose centres of applied qualifications and VET structural units within enterprises.
- Normative per capita funding and competitive allocation of government-subsidised study places have been introduced.
- Multi-channel funding mechanisms have been used for VET development projects.

Progress made since 2010 in achieving effective multi-level participation in VET system management and policy making stands at 3.7 on a scale of 1 to 5.

There are three main priorities in this area:

- making further efforts to introduce mechanisms and procedures for independent quality assessment, certification of qualifications and professional, non-governmental, accreditation of VET programmes;
- designing and implementing interaction models to support engagement between VET providers and employers' associations, involving the latter in managing the VET system;
- designing and implementing incentives to attract investors to the VET system.

ANNEX: STRUCTURE AND CONTENT OF RUSSIA'S VET PROGRAMMES IN ACCORDANCE WITH ISCED 2011 LEVELS – A BRIEF OVERVIEW

Level	Main ways of achieving the qualification level	ISCED 2011
1	Short-term training or instruction, practical experience	–
2	Basic 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 programmes: training programmes for skilled workers (service employees) 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	Secondary VET programmes: training programmes for mid-level specialists, training programmes for skilled workers (service employees) 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 Continuing VET programmes Practical experience	5. Short-cycle tertiary education
6	Programmes of higher education: bachelor programmes Continuing VET programmes Practical experience	6. Bachelor or equivalent
7	Programmes of higher education: master or specialisation programmes Continuing VET programmes Practical experience	7. Master or equivalent
8	Training programmes for teaching and academic staff: postgraduate (adjunct) programmes, residency programmes, assistant internship programmes Programmes of higher education: master or specialisation programmes Continuing VET programmes Practical experience	8. Doctor (PhD) or equivalent
9	Continuing VET programmes, practical experience, leading to Doctor of Science degree	–

ABBREVIATIONS AND ACRONYMS

CPRP	Chelyabinsk Pipe Rolling Plant
CVET	Continuing vocational education and training
ETF	European Training Foundation
FSES	Federal state educational standard
GDP	Gross domestic product
ISCED	International Standard Classification of Education
IT	Information technology
IVET	Initial vocational education and training
NGOs	Non-governmental organisations
PES	Public employment services
Rosstat	Federal State Statistics Service
RUB	Russian ruble
SME	Small and medium-sized enterprise
VET	Vocational education and training

BIBLIOGRAPHY

- Agency for Strategic Initiatives, *Atlas of new occupations*, Agency for Strategic Initiatives, Skolkovo, Moscow, 2014. Last accessed December 2014 at:
www.skolkovo.ru/public/media/documents/research/sedec/SKOLKOVO_SEDeC_Atlas.pdf [in Russian]
- Egorova, E., *Illegal migration to Russia*, Russian Council for Foreign Affairs, 21 May 2013. Last accessed 15 May 2014 at: http://russiancouncil.ru/inner/?id_4=2003#top [in Russian]
- ETF (European Training Foundation), *The Torino Process 2014*, ETF, Turin, 2014
- Florinskaya, Y., *The scale of labour migration to Russia*, Russian Council for International Affairs, 13 September 2013. Last accessed December 2014 at:
http://russiancouncil.ru/inner/index.php?id_4=2342#top [in Russian]
- Government of the Russian Federation, *State federal programmes of the Russian Federation*. Last accessed 13 May 2014 at: <http://government.ru/info/11977> [in Russian]
- Kuvshinova, O., 'Decline as the norm', *Vedomosti*, 6 May 2014, p. 4
- Kuvshinova, O., 'Economy under a cold spell', *Vedomosti*, 4 February 2014, p. 4
- Ministry of Labour and Social Protection, *Register of occupational standards in the Russian Federation*. Last accessed December 2014 at: <http://profstandart.rosmintrud.ru/reestr-professionalnyh-standartov> [in Russian]
- National Research University – Higher School of Economics, *Education in the Russian Federation: 2012*, HSE Data Books, Moscow, 2012. Last accessed 12 May 2014 at:
www.hse.ru/en/primarydata/orf2012 [in Russian]
- OECD (Organisation for Economic Cooperation and Development), *OECD economic surveys: Russian Federation 2013*, OECD Publishing, Paris, 2014.
doi:http://dx.doi.org/10.1787/eco_surveys-rus-2013-en
- Ratings of Russian regions' (federal subjects') socioeconomic status as of 2012 year end*. Last accessed 12 May 2014 at: www.riarating.ru/infografika/20130610/610567256.html [in Russian]
- Rosstat, *National accounts of the Russian Federation*. Last accessed 13 May 2014 at:
www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/accounts/# [in Russian]
- Russian Federal Treasury, *Data on regional and local budgets' implementation in 2012*. Last accessed 12 May 2014 at: www.roskazna.ru/byudzheto-subektov-rf-i-mestnykh-byudzheto/ [in Russian]
- Russian Federal Treasury, *Federal budget expenditures by section and subsection of expenditures classification in 2012*. Last accessed 12 May 2014 at: <http://datamarts.roskazna.ru/index.php/2012-razdely/raskhody/raskhody-po-razdelam/fk-0004-0020> [in Russian]
- Russian regions: Socioeconomic indicators in 2013*. Last accessed 13 May 2014 at:
www.gks.ru/bgd/regl/b13_14p/Main.htm [in Russian]
- Sitina, B., 'Conservation of the situation is underway', *Kommersant Vlast*, Issue 17-18, 12 May 2014, pp. 8-14
- Tikhonov, S., 'Almost at the Soviet pace', *Expert Online*, 5 December 2013. Last accessed 12 May 2014 at: <http://expert.ru/2013/12/5/pochti-sovetskij-temp/> [in Russian]

Legal and regulatory framework for VET

Primary legislation

Concept of Long-term Socioeconomic Development of the Russian Federation for the period up to 2020, approved by the Russian government's Order No 1662-r of 17 November 2008

Strategy for Innovation-driven Development of the Russian Federation for the period up to 2020, approved by the Russian government's Order No 2227-r of 8 December 2011

Federal Law No 276-FZ on Education in the Russian Federation of 29 December 2012

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 in education and science

Presidential Decree No 249 of 16 April 2014 on the National Presidential Council for Vocational Qualifications

Core activities of the Russian government up to 2018 (approved by the Russian Prime Minister on 31 January 2013)

Government Order No 2620-r of 30 December 2012 on the approval of the action plan (roadmap) for changes in the social sphere aimed at improving the effectiveness of education and science

Government Order No 487-r of 31 March 2014 on the approval of a comprehensive action plan for the development of occupational standards, their independent professional or public assessment and their application between 2014 and 2016

Government Decree No 2190-r of 26 November 2012 on the approval of gradual improvements in payroll systems in public (municipal) institutions between 2012 and 2018

Government Decree No 92 of 10 February 2014 on the approval of the rules regulating employer associations' participation in monitoring and forecasting the economy's need for skills and in the development and implementation of public policies in secondary vocational and higher education

Government Decree No 661 of 5 August 2013 on the approval of rules for the development and approval of federal educational standards and amendments thereof

Secondary legislation

Development strategy for the VET system and applied qualifications in Russia for the period up to 2020 (approved by a Resolution of the Ministry of Education and Science Board of 18 June 2013)

Order No 464 of the Ministry of Education and Science of 14 July 2013 on the approval of procedures for implementing and delivering education in secondary VET programmes

Order No 292 of the Ministry of Education and Science of 18 April 2013 on the approval of procedures for implementing and delivering education in basic VET programmes

Order No 498 of the Ministry of Education and Science of 1 July 2013 on the approval of procedures for implementing and delivering education in continuing VET programmes

Order No 1324 of the Ministry of Education and Science of 10 December 2013 on the approval of performance indicators for education providers' self-assessment

Order No 291 of the Ministry of Education and Science of 18 April 2013 on the approval of guidelines for practical instruction in basic secondary VET programmes

Order No 968 of the Ministry of Education and Science of 16 August 2013 on the approval of procedures for final attestation in secondary VET programmes

Letter No AK-921/06 of the Ministry of Education and Science of 17 June 2013 on recommendations for setting up multifunctional centres of applied qualifications (vocational qualifications training centres)

Order No 2 of the Ministry of Education and Science of 9 January 2014 on the approval of procedures for the use of e-learning and distance learning by education providers in the delivery of educational programmes

Order No 276 of the Ministry of Education and Science of 7 April 2014 on the approval of procedures for attestation of teachers employed by education providers

Order No 565 of the Ministry of Labour and Social Protection of 30 November 2012 on the approval of the schedule for the preparation of occupational standards in 2013 and 2014

Order No 148-n of the Ministry of Labour and Social Protection of 12 April 2013 on the approval of skills levels for the purpose of designing occupational standards

Statistics

International sources

European Training Foundation (ETF)

International Association for the Evaluation of Educational Achievement (IEA)

International Labour Organisation (ILO)

Organisation for Economic Cooperation and Development (OECD)

Statistical Office of the European Union (Eurostat)

UNESCO Institute for Statistics (UIS)

United Nations Development Programme (UNDP)

United Nations Statistics Division (UNSD)

World Bank

World Economic Forum (WEF)

National sources

Labour force surveys (via NSS)

National Statistical Services (NSS)

Relevant government ministries

Data presented here reflects five-year trends, between 2008 and 2012 (some indicators refer to other periods of observation).

CONTACT US

Further information can be found on the ETF website:

www.etf.europa.eu

For any additional information please contact:

European Training Foundation
Communication Department
Villa Gualino
Viale Settimio Severo 65
I – 10133 Torino

E info@etf.europa.eu

F +39 011 630 2200

T +39 011 630 2222

