

TORINO PROCESS

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**Russia
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Main concepts and definitions

Vocational education	<p>1) The organised process for acquiring experience in a specific vocational activity which will ensure the social and professional development of important qualities.</p> <p>2) The outcome of the above process (i.e. an individual's ability to perform a certain professional activity, certified by a diploma or degree from a vocational education institute).</p>
Vocational training	The organised process of acquiring competencies required to perform specific job functions.
Vocational education and training (VET)	<p>1) Organised training for professional human resources. Various forms of acquiring VET.</p> <p>2) Accelerated development of the professional competencies required to perform specific job functions (as defined in chapter 2, paragraph 21, of the Law on Education of the Russian Federation).</p>
Federal State Educational Standard	A regulatory document defining the set of requirements for the outcome of a basic educational programme, its structure and its implementation terms.
Professional/Occupational Standard (PS/OS)	A document defining the viewpoint of employers' associations and/or professional associations regarding the content of the professional activity in a specific business sector and the requirements for the qualifications of employees.
National Qualifications Framework (NQF)	A general description of qualification levels and main routes to achieving them, which is used as an integration tool for the employment and education worlds.

A. Abstract

This report has been prepared according to the structure and the list of topics recommended by the European Training Foundation (ETF) for the countries participating in the Torino Process. The data used for this report was initially compiled for a report titled Key Priorities For Development of Vocational Education and Training (VET) in the Russian Federation for the joint meeting of the State Council of the Russian Federation and the Presidential Commission for Modernisation and Technological Development of Russia's Economy.

The report opens with a list of main concepts and definitions currently used within the Russian VET system and included in the first edition of the dictionary/guidebook published recently by the Federal Institute of Educational Development. The guidebook's aims are as follows:

- To standardise professional and federal standards for terminology with regards to the new generation of VET currently being introduced in Russia.
- To provide operational and methodological support to the developers of VET programmes, developed according to the newly-introduced federal state education guidelines and as a part of corporate training and advanced adult education
- To provide support to the developers of professional standards and to regional education authorities.

The report consists of five main chapters (excluding the Abstract). Chapter B describes key priorities, challenges and specific actions undertaken for implementation of VET policy. Chapters C, D, and E cover in more detail issues regarding the interaction of the labour market and VET, ease of access to vocational education for various groups of population and the quality of education. The Annex to Chapter C provides additional information on the National Qualifications Framework (NQF).

The final chapter (F) presents the main directions for modernising the VET system and for its further development (including development of social partnerships and a lifelong education system).

The annexes¹ contain additional information and data in support of the main report:

- The structure of the VET system in Russia and its components;
- The legal, institutional, national and sociopolitical frameworks governing the various components of the VET system;
- Statistical data on educational levels of the Russian population, by age, gender and urban/rural breakdown;
- Statistical data on the reading results of the Programme for International Student Assessment (PISA);
- Statistical data on illiteracy;
- Several figures depicting the situation in regard to VET.

¹ Annexes to Chapters B and C are provided separately in order to reduce the size of the main report.

B. State of the art in Russian VET

1. What is the official position in terms of vision and perception with regards to VET?

The key points identified as potential barriers for the modernisation of the country's economy are the deficit of human capital and the lack of qualified engineers and a regular labour force. These will be addressed as defined by the Concept Paper for Socioeconomic Development until 2020 (approved by Decree No. 1662-p on 17 November 2008) and Principal Directions of the Russian Government until 2012 (approved by Decree No. 1663-p on 17 November 2008).

On 31 August 2010, a joint meeting was held by the State Council of the Russian Federation and the Presidential Commission for Modernisation and Technological Development of Russia's Economy, regarding the key priorities for the development of VET in Russia. One of the main issues identified was the excessive demand for higher vocational education, in comparison to elementary and secondary VET. Therefore, a goal has been set to increase the attractiveness of elementary and secondary VET.

The VET system, as developed and implemented during the industrial period of extended development in a non-competitive environment, is in need of fundamental changes. The key conditions for the development of the VET system are as follows:

- Relevancy of the VET system to the economy and the economy needs;
- Joint efforts by the state, the employers and the society;
- Cooperation amongst various authorities, irrespective of their authority level;
- Incentives for the population to continue lifelong VET;
- Incentives for educational institutions to enhance the quality of VET based on ratings recognised both nationally and internationally.

Even more relevant are the following directions:

- Development of public, organisational and economic mechanisms for the management of the VET system;
- Review of the content of VET according to professional standards, with direct involvement of employers associations;
- Introduction of an independent quality assessment system for VET, including qualification assessment and certification of graduates;
- Development of a re-training and professional development system for academics and teachers in the VET sector in order to accrue human capital capable of leading modernisation of the system;
- Development of management devices that would ensure that the VET system is included as a solution for the human resource problems faced by companies;
- Establishment of a vocational guidance system for young people in order to re-educate society and change perceptions of certain sought-after professions, technical vocational training and complex scientific professions;
- Increase influence regarding integrated modernisation of VET in districts.

2. What actions have been undertaken to ensure VET policy implementation?

State VET policy is implemented by the Ministry of Education and Science, the scientific institutions reporting to it and dedicated federal and departmental programmes and via the National Priority Project on Education. The major state-funded projects currently are as follows:

- Development of VET strategy and modernisation programmes aimed at implementation of the project titled Strategies for the Socioeconomic Development of Russian Federation Districts;
- Modernisation of training programmes aimed at the services sector;
- Development of a vanguard VET system that takes into account any potential technological economy growth and increase in productivity;
- Development of an independent quality assessment system for educational and academic activity in priority economy fields that ensures objective and transparent assessment of results.

A total of 300 innovative resources centres were created as a part of the National Priority Project on Education (see the Annex to Chapter B for additional data on the results of this project for the period 2007–2009) in various Russian Federation constituencies to enable the implementation of the elementary and secondary VET programmes. The material and technical infrastructures of the leading elementary, secondary and higher VET institutions were also refurbished. Another important development was the identification of leading institutions, as a kind of 'growing point', capable of offering support by the establishment of territorial-economic branches and the modernisation of the regional VET system. The national project has also, in accordance with the goals set for an innovative economy, reviewed the issues of providing incentives to innovation within education and supporting the initiatives of educational and public organisations, employers associations, local authorities and constituencies of the Russian Federation in order to update and improve the educational process and the educational system as a whole.

In higher education, a network of 36 leading universities has been set up (7 federal and 29 doing scientific research). The remaining higher education institutions will also undergo modernisation in the next five years. An effective network of VET institutions that could act as centres for socioeconomic growth for the districts will need to be developed, followed by the establishment of integrated research parks that include VET institutions of different levels.

The range of VET programmes is being expanded based on different objectives and focuses (e.g. applied bachelor programmes are currently being piloted). New mechanisms of ensuring continuous VET are being devised by means of successive VET programmes. The new Federal State Educational Standards, based on a modular competency approach, are currently being finalised and approved. New federal state standards have also been introduced in higher education (154 bachelor degree and 163 master degree standards). Some departments (107) have preserved the continuous five-year training format based on the traditional Russian higher education system. The same continuous five-year (minimum) training format has been preserved for certain specialisations critical for state security and the wellbeing of citizens (engineers, doctors, architects, etc). As of 2011, new Federal State Educational Standards will be introduced to 567 specialisations and professions, on offer at elementary and secondary VET institutions.

The definitions used by the new educational standards regarding the requirements for the outcomes of a basic VET programme are the ones set by the NQF, developed by the Ministry of Education and Science and the Russian Union of Industrialists and Entrepreneurs (for additional information on the NQF, see the Annex to Chapter C).

The relevant regulatory framework is now in place for the implementation of the new operational form of educational institutions called on to increase their financial independence and expand their potential for attracting additional extra-budgetary resources.

The modernisation processes to develop VET in Russia require changes in the legislation and the education regulatory framework. To this end, a new draft Federal Law on Education has been published on the website of the Ministry of Education and Science and is currently undergoing public scrutiny.

3. What are the current priorities?

Establishment of an innovative economy constitutes the main priority for the next decade and poses a major challenge for the VET system. The key points for modernisation of the VET system are as follows:

- Alignment of the VET system with the requirements of developing labour markets and socioeconomic growth;
- Further decentralisation of VET system management with simultaneous reinforcement of the federal role in the field of market regulation to ensure high quality educational services (distribution of authority between the federal centre and the constituencies is governed by Chapter III of the Federal Law on Education of 10 July 1992 (reviewed 17 June 2010) and by the clause on the Ministry of Education and Science of the Russian Federation);
- Establishment of an integrated federal and regional network of VET institutions faced with similar challenges;
- Integration of Russia and constituency efforts for the development of VET;
- Modernisation of the vocational guidance system and creation of a professional accompaniment system within educational institutions;
- Development of human resources for VET;
- Establishment of an independent and external assessment system for VET quality;
- International integration of VET so as to increase export of Russian educational services.

4. What are the main challenges and key issues in VET?

Only part of the Russian education system is involved in the modernisation process. The rapid progress of a leading group of educational institutes only further highlights the poor level of most. The developing VET system cannot keep up with the current demands of the developing economy. The existing network of VET institutions and the service structure they offer is not able to react to the demographic changes in the country, resulting in a deficit of qualified labour in Russia and the recruitment of migrants from the Commonwealth of Independent States (CIS) and non-CIS countries.

The establishment of non-state, including corporate educational and scientific research institutions, leads to the development of competition in the VET market. In many cases, these newly formed institutions are much more flexible and energetic compared to the state ones. However, they also include unscrupulous education providers. The protection of the state educational institutions could lead to a slowdown in the modernisation process and preservation of obsolete approaches, but a lack of protection could increase the risk of higher pseudo-university graduate numbers which would harm the quality of higher education. This problem is further compounded by young people's choice of a higher education institution based on its prestige rather than on the end result, i.e. the acquisition of genuine knowledge, skills and competencies. The problem is further compounded gain by factors such as

depletion of the resource base of the existing VET system, including its regular personnel. Most of the teaching staff displays insufficient willingness and weak motivation when it comes to innovation.

With regards to the country's VET system as a whole, the key points are integration into the international educational system, international correspondence of education requirements and results and the development of academic mobility amongst students, teaching and scientific research staff.

Finally, the recognition of informal and unsupervised training constitutes a major problem.

C. External efficiency: economic and labour market needs and VET–business interaction

1. What are the three main economic problems defining demand for relevant skills and competencies?

- Economic restructuring, country modernisation, transition from an economy based on primary products²;
- Accelerated development of hi-tech economic sectors, introduction of the infrastructure required for the capitalisation of scientific results and new technologies;
- Significant increases in productivity within the context of a demographic crisis.

2. How successful is the VET system in resolving problems?

The resolution of problems is closely related to the development and introduction of socioeconomic measures in combination with the improvement of education quality and the development of a variety of educational services. The VET system should primarily resolve the issue of human resources for the modernisation of the economy and the technological growth of the country. Some specific measures can be identified that will lead to the resolution of problems (e.g. providing the required resources for the economy, improving training of graduates and employees in order to address the needs of the labour market, supporting the re-training of graduates, involving the private sector, ensuring access to elementary and secondary VET and to vocational training at the highest educational level, developing an adult education system, career management security, assistance with recognition and certification of unsupervised/informal training). These are as follows:

- Development of a modern network of leading higher education institutions. The core network would consist of Lomonosov Moscow State University, St. Petersburg State University and federal and national scientific research universities (36 universities in total, 7 federal and 29 national research universities);
- Development of a regional network of VET institutions, both higher and other levels of education;
- Direct employers' associations involvement in independent assessment of VET quality;
- Experimental development and implementation of applied bachelor programmes³;

² According to Presidential Decree 843, of 21 May 2006, the principle directions for the development of science, technology and engineering are state security and counter-terrorism, live systems, nanosystems and nanomaterials, information and telecommunications, advanced weaponry, military and special equipment, nature conservation, transportation, aviation and space systems, power production and energy efficiency.

- Development of public-private partnerships in the VET field and support and exchange of experience of strategic partnerships between higher education institutes and enterprises, such as the strategic partnership programme carried out by St. Petersburg State Electrotechnical Institute-LETI;
- Support by enterprises for the implementation of continuous education programmes, such as the Presidential Programme for Preparation of Management Staff for the Organisations Involved in the National Economy of the Russian Federation;
- Introduction of a regulatory framework that would allow the implementation of the new operational forms of educational institutes aimed at increasing their financial independence and their responsibility for the end product (the state would retain the social responsibility for those sectors which are not affected by market activity);
- Establishment of endowments fund (nine were established in 2009: Financial Academy, Southern Federal University, Siberian Federal University, Moscow State Institute of International Relations, Advanced School of Economics, Advanced School of Management of St Petersburg University, European University in St Petersburg, Moscow School of Management-Skolovo and the Education and Science Fund of the Southern Federal Region);
- Involvement of employers' associations in the development and professional assessment of a new generation of Federal State Educational Standards for elementary, secondary and higher VET and the development of new modular education programmes based on those standards;
- Development and implementation of an adult education system, including advanced professional training and re-training programmes, as a support mechanism for employees affected by the economic crisis.

A new infrastructure is currently being set up that will enable access to lifelong continuous VET. The key elements of this infrastructure are as follows:

- Vocational training and re-training programmes based on modularity principles that also includes the organisations and institutes (both state and private) carrying out training;
- A single units (credits) system based on a modern system of informational accounting, storage and data collection of education results;
- A nationwide quality assessment system with certification of qualifications independently of the organisations offering educational programmes.

3. How involved is business in VET policy implementation?

It has to be noted that the involvement of business in the implementation of VET policy is not sufficient. However, certain cooperation steps have been taken by the government and the business and educational system in this direction and will hopefully continue.

The main element in the educational process is work experience. At present, employers do not always accommodate the needs of educational institutes with regards to the above. The reason is the formal approach to organising work experience adopted by educational institutes which leads to a lack of trust by business in the quality of education provided.

³ Applied bachelor's programmes are highly-orientated to the needs of employers and are carried out jointly by higher and secondary vocational education institutes. The experiment will enable the development of new methods of organising the educational process and the preparation of qualified technical human resources with current competencies sought-after by innovative hi-tech enterprises.

In the past few years some attempts have been made to institutionalise the VET requirements of leading employers through the development and validation of professional standards. Currently approximately 70 professional standards have been developed and approved by Russian Union of Industrialists and Entrepreneurs committees in the information technologies, aircraft engineering, hospitality and business administration sectors. These professional standards were utilised for the development of the new Federal State Educational Standards. Another 100 professional standards are currently under development, covering sectors such as oil extraction, gas supply, nanoindustry, construction, machinery manufacturing, service market, nursing care and human resources management.

As part of their bilateral agreement, the Russian Union of Industrialists and Entrepreneurs and the Ministry of Education and Science have developed the NQF (see Annexes) and are working together on an independent assessment system for VET quality, as well as effective methods for the assessment and certification of VET qualifications of graduates and other citizen groups that undertake various forms of vocational training. Extensive work is currently carried out on the development of an independent assessment system for the qualifications of VET institute graduates based on the professional standards. This work is regulated by core documents mutually approved by the Ministry of Education and Science and the Russian Union of Industrialists and Entrepreneurs.

Experts, such as representatives of employers' associations and trade unions, were involved in the development of the new Federal State Educational Standards for higher, secondary and elementary VET. The professional standards were also taken into account. The experts representing the employers are involved in the development of VET programmes, as well as in monitoring and forecasting the qualified human resource needs of the economy. Amongst the companies actively interacting with VET institutes within the framework of the development of VET programmes and offering financial assistance for their implementation are United Aircraft Corporation, KNAUF Group, TNK-BP, Rusnano, Sollers, the Russian Federation of Restaurateurs and Hoteliers, RUSAL and Russian Railways.

The Moscow School of Management-Skolkovo project is being carried out as a public-private partnership. There are currently six private investors and eight companies (Russian and foreign) amongst the partners-founders of this business school.

4. What factors prevent the current VET system from promptly reacting to and addressing the needs of the economy?

- Depletion of the resource base of the existing VET system, including its regular personnel;
- Insufficient willingness and weak motivation for innovation in educational institutes and among teaching staff and an ageing school workforce;
- Lack of mechanisms for involving public institutes in the decision-making process regarding the development and implementation of educational policy;
- Mainly informative (rather than pragmatic) approaches to education and its results;
- Inflexible long-lasting programmes for VET;
- Lack of an effective work experience system;
- Lack of a balanced system for quantitative and qualitative labour market needs forecasting;
- Poor development of mechanisms for assessing the labour market effect of VET programmes and quality;
- Lack of a legislative framework for flexible interaction between educational institutes at different levels in order to implement integrated programmes.

The innovation structure of the educational network is inadequate and incapable of responding to issues raised in developing a knowledge-based economy and increasing Russian competitiveness in the international market. This is due to:

- Detachment and isolation of elements of innovative infrastructure and poor communication between higher education institutes and regional social services;
- The limited number of business incubators, research parks and research and development centres created jointly with businesses and of shared centres offering access to hi-tech equipment;
- Poor level of establishment and statutory recognition of intellectual property rights, especially in the international market.

One direction for the development of educational innovation should be the organisation of events which promote effective integration of the innovative infrastructure of the education network into the federal innovation system and the expansion of networking opportunities at the international level.

5. What actions have been undertaken to eliminate VET–business barriers and resolve the issues above?

Significant progress has been made in the regulatory framework in the past five or six years. The Ministry of Education and Science in cooperation with the Russian Union of Industrialists and Entrepreneurs has compiled a series of documents that allow employers' associations to be involved in the assessment of education quality:

- Ministry of Education and Science Decree No. 256, of 17 October 2006, on the development of cross-departmental projects for the development of elementary and secondary vocational education;
- Federal Law No. 307, of 1 December 2007, on the introduction of amendments to certain Russian Federation legislative acts in order to enable employers' associations to participate in the development and implementation of state policy on vocational education;
- Government Decree No. 1015, of 24 December 2008, on the adoption of regulations with regard to employer participation in the development and implementation of state policy on vocational education;
- Agreement on interaction between the Ministry of Education and Science and the Russian Union of Industrialists and Entrepreneurs of 25 June 2007;
- Decree No. 318/03 on the establishment of an independent assessment system for VET quality (approved by the Ministry of Education and Science and the Russian Union of Industrialists and Entrepreneurs on 31 July 2009);
- Decree No. 317/03 on assessment and certification of the qualifications of VET graduates and other citizen groups that undertake various forms of vocational training (approved by the Ministry of Education and Science and the Russian Union of Industrialists and Entrepreneurs on 31 July 2009) etc.

Federal Law No 217, of 2 August 2009, on the introduction of amendments to certain Russian Federation legislative acts with regards to formation, by state-funded research and education institutes, of business entities to make practical use of intellectual property allows state-funded research and education institutes to set up small and medium-sized enterprises, to provide them with buildings and other equipment and allow them intellectual property rights, etc. The following laws have also been approved: Federal Law No. 174, of 3 November 2006, on autonomous institutes and Federal Law No. 83, of 8 May 2010, on the introduction of

amendments in certain Russian Federation legislative acts in connection to improvements in the legal status of state (municipal) institutes.

The above legislation, combined with other laws and regulatory acts, creates the required conditions and incentives for the development of public-private partnerships in VET.

D. External efficiency: Access to relevant VET programmes for specific population groups

1. What three key social problems define requirements for particular skills and competencies?

- Lack of conditions enabling professional mobility and also paternalistic attitudes;
- Spontaneous social and occupational integration of migrants amidst intolerance by a part of society;
- Deficit of labour and imbalances between labour market supply and demand.

2. How successful is the VET system in resolving these problems?

In general, the part played by VET in the resolution of these problems is currently insufficient. Rather, it was the following steps that had a direct impact on the resolution of the issues mentioned above.

As of August 2008, substantial work has been done in the implementation of the Concept Paper for the Development and Operation of a Career and Employment Advisory System for VET Graduates. The higher VET system has 422 graduate career and employment advisory centres. There are also 763 employment advisory services and 123 regional centres offering employment advice to secondary VET graduates. These centres and services have got the necessary informational base, including data on regional labour market supply and demand with regard to a cross-section of specialisations offered by educational institutes. Currently under discussion is the creation of a vocational guidance system with the assistance of the film industry, the mass media and the internet, aimed at increasing the attractiveness of certain professions, technical vocational training and complex scientific professions.

In the past few years VET institutes have received significant support within the framework of National Priority Project on Education. Various measures have been taken for restructuring elementary and secondary VET systems, in particular:

- The necessary conditions have been created for interaction between businesses and educational institutes with regard to the organisation and management of training based on a modern technological base (development of public-private partnerships);
- The necessary organisational and regulatory conditions are being created to promote the integration of elementary and secondary VET programmes and include them in the system of continuous vocational education;
- The number of federal VET institutes has been reduced by handovers to district authorities.

Experiences in the Republic of Tatarstan, Krasnoyarsk District, Tver Region and Tomsk Region indicate that several effective models have been developed that could lead to VET network reform. A successful solution for a district with groups of companies with sustainable demand for qualified personnel would be the formation of industrial clusters of institutes. These would concentrate on servicing this group of companies (or one major company)

through their elementary and secondary VET programmes (human resource centres). The establishment of such human resource centres within districts has been proven to attract funding from employers and their involvement in the educational process, according to the findings of the National Priority Project on Education.

Another promising model is multidisciplinary local colleges established in places with no sustainable demand for a specific profession or specialisation. This solution would enable educational services to be adjusted to the needs of the local population, especially important in small towns and rural communities. A pilot programme is currently underway in a district centre in the Tomsk Region, with 15 business teams anticipated to complete their training within one year, thereby increasing the level of self-employment of the rural community by 10% and the level of employment amongst graduates by 20%. In both multidisciplinary colleges and industrial clusters, the most viable solution appears to be the multi-level educational institute model, encompassing both elementary and secondary VET programmes.

Educational services are also expanding in the field of continuing vocational education, including further development of adult education system. No significant progress has been made so far in this field, although specialised programmes are being developed for vocational training, continuous education and the employment of migrants.

3. What measures have been taken to increase the attractiveness of VET?

According to the new standards, educational institutes can dedicate up to half of the course to research into issues related to regional production and technology processes (20% at elementary level, 30% at secondary level and 50% at higher level of VET, possibly up to 70% at post-graduate level). This allows the educational institute in cooperation with businesses to constantly renew the content and processes of the education.

- Stimulation of competition between VET institutes by making use of financial leverage (e.g. per capita financing);
- Access and transparency of information on potential directions of the socioeconomic development of the Russian Federation and its constituencies, sought-after employment types, quality of education, recruitment and career progression of graduates;
- Unrestricted publishing (including online) of ratings of VET institutes, the educational programmes on offer and data from opinion polls and development of public professional accreditation of educational programmes, etc;
- Additional measures to increase opportunities for transition from one VET level to another. This could be achieved through integrated secondary and higher VET programmes and would create the necessary conditions for development of a continuous education system (the development of VET and re-training programmes, based on modularity principles);
- The introduction of a single units (credits) system (currently applies to higher education only, as part of the implementation of new Federal State Educational Standards for higher VET from 2011);
- Development of a nationwide assessment system for education quality, independent from institutes offering educational programmes.

4. How successful is the VET system in offering education and training opportunities to all citizens (including the most vulnerable) that could improve their skills and competencies and ensure productive employment, personal development and active citizenship?

A compulsory state exam was introduced in 2008 for all secondary general graduates. This, in combination with the relevant amendments to the admission regulations for VET institutes, has had a positive impact on providing access to VET and on creating the necessary circumstances for the geographical, social and academic mobility of young people.

At the same time, costs for remunerated services in VET have increased, unaccompanied by a corresponding increase in quality. According to the Federal State Statistics Service the official value of the educational services offered by state-funded educational institutes (covering 90% of students) saw an average annual increase of 15-22%, depending on the level of education, during the period 2000–09. The lowest increase was recorded in the actual value of educational services offered by colleges and technical schools (in nominal values 13.8%, in real terms 1.4% annually, adjusted for inflation). From 2009 onwards, as part of the implementation of anti-crisis measures, most state-funded educational institutes made the decision to set a fixed rate and to hold steady the costs of education. Also in 2009, as part of an experiment with support from the state, individuals studying for sought-after specialisations were given access to student loans on favourable terms. Unfortunately, despite significant support from the state, only four banks decided to take part in the experiment.

5. What future plans are there for the resolution of the key problems?

The measures taken during the VET system reform and the amendments introduced in the legislation and regulatory documents were not always systematic. Therefore, all the amendments to the educational system are currently being evaluated in order to identify conflicts and contradictions. The outcome of this work should be utilised as part of the new fully integrated educational project approved by the Federal Law on Education.

The demographic situation has forced a more active approach involving all countries with international migration flows and has made Russia particularly attractive for migrants from CIS and non-CIS countries. The requirement for these labour groups is to have in place adaptation and social integration programmes and to provide the necessary qualifications through the continuous education system.

Additional measures need to be taken to ensure access to VET for people with disabilities. The following actions have been planned:

- Compilation of an indicative list (which can be amended and expanded) with the most sought-after professions in the current labour market recommended for people with disabilities, with good chances of successful subsequent employment;
- Development of mechanisms for interaction between authorities and employment services, social protection services, medical and social services, educational services, non-governmental organisations and employers' associations regarding the employment of people with disabilities that have completed VET;
- Implementation of projects within the framework of the Federal Target Programme for the Development of Education 2011-2015, whose goal is to create the right conditions for all types of educational institutes to be able to provide VET to people with disabilities, advanced training for teaching staff, methodological support for education supervisory authorities and increased allowances for training of people with disabilities at all levels of education.

The following projects are underway in line with education as socialisation for people with disabilities in contemporary society (Direction No. 78 regarding provision of expert and

analytical support for the implementation of strategic projects from strategic direction CH7 as part of the Federal Target Programme for the Development of Education 2009-2010). They are aimed at resolving the issues of:

- Improvement of record-keeping of people with disabilities and monitoring respect for their right for education;
- Development of psychological and training support systems for people with disabilities throughout general and vocational education institutes;
- Improvement of content and technical support for VET for people with disabilities, including technological support and resources for distance learning;
- Establishment of regional resource centres for the training of children with disabilities.

The development of the regulatory framework and conditions for acquisition of VET by people with disabilities, servicemen and orphans includes:

- Development of special VET programmes for people with disabilities;
- Concessional terms for admission to higher education institutes for people with disabilities, contracted servicemen and orphans.

In line with the direction on the development of vocational training within the armed forces (carried out as part of the National Priority Project on Education) the main measures to be taken are the following:

- Establishment inside military units of 100 elementary VET training centres in order to expand VET opportunities of servicemen undergoing compulsory military service;
- Provision of foundation training in special preparatory higher education faculties for individuals who have served at least three years in the army (as contractors, soldiers, sailors, sergeants, majors of the armed forces (including payment of special bursaries).

E. Internal efficiency: VET funding, modernisation and quality assurance

1. What are the three main internal problems faced by the VET system?

Despite the substantial changes that have been made lately, key problems persist:

- Poor quality of graduate training and weak external quality control independent from educational institutes and the vocational education system;
- Maintenance of principally state management of VET and insufficient influence from the business world;
- Lack of an integrated system of vocational guidance and indications of low employment levels of graduates according to their specialisation.

2. How is VET efficiency evaluated and how is VET quality defined, assured and measured at the specific teacher, specific education institute and national levels?

The degree of efficiency in the VET system is measured as described below.

At the specific teacher level:

- Rating of the teacher, including performance indicators of scientific research and lecturing activity. The calculation is based on the rating of efficiency factor, using the results of ratings as indicators for the resolution of long-standing problems in the human resources policy of the educational institute and as a basis for providing incentives to teachers that offer a high level of education (Moscow Institute for Steel and Alloys, Tomsk Polytechnic University, Volgograd State Technical University, etc).
- New remuneration system according to which payment consists of a salary, benefits and incentive payments. Therefore, part of a teacher's remuneration will depend on performance, thereby ensuring a higher standard of teaching quality by reducing excessive headcount (in institutes reporting to the Ministry of Education and Science, incentive payments in the second quarter of 2010 made up 35.2% of general payments in higher education institutes, 26.5% in elementary VET institutes and 22.7% in secondary VET institutes).

At the specific education institute level:

- Internal quality audits and self-assessment of the educational organisation as part of the state accreditation;
- Annual public report from the managers of VET institutes;
- Introduction and certification of quality assurance systems for education services (Ministry of Education and Science Decree No. 304, of 3 December 2004, on the development and introduction to higher education of a quality assurance system (as per the example set by the Moscow Institute of Steel and Alloys, as well as a competition on higher education quality assurance systems for specialist training conducted by the Ministry of Education and Science).

At the national level:

- Federal State Educational Standards;
- National institutional accreditation;
- Nationwide system of education quality evaluation, currently underway.

Previous experience of independent public evaluation includes:

- Individual examples of public accreditation for educational programmes (the Agency for Higher Education Quality Assurance and Career Development and the Russian Association for Engineering Education);
- Introduction of a regulatory framework for the qualifications certification system (Decree No. 318/03, on the establishment of an independent system for VET quality evaluation, approved by the Ministry of Education and Science and the Russian Union of Industrialists and Entrepreneurs on 31 July 2009 and Decree No.317/03 on the assessment and certification of qualifications for VET graduates and other citizen groups that undertake various forms of vocational training, approved by the Ministry of Education and Science and the Russian Union of Industrialists and Entrepreneurs on 31 July 2009, among others).

For now these procedures exist independently, although significant work is being undertaken to establish an integrated system for VET quality evaluation based on combining state and public accreditation.

3. What management and funding mechanisms are or will be in place to improve VET efficiency and quality?

The administration of the VET system is currently undergoing a decentralisation process, with the authority being redistributed on federal and regional levels.

According to Federal Law No. 83, of 8 May 2010, on the introduction of amendments to certain Russian Federation legislative acts in connection to the improvement of the legal status of state (municipal) institutes, educational institutes will have one of the following organisational and legal forms: state-owned, state-financed (newly state-financed) and autonomous. This law will come into force on 1 January 2011. The transition period is extended to 1 July 2012.

Autonomous institutes are non-profit institutes. They can be established by the Russian Federation, by its constituencies or by the municipal education system with a view to carrying out work and offering services in the field of science, education, health, culture, social protection, employment, physical education and sports. Compared to the state-financed institutes, they have additional rights regarding raising borrowed funds, opening accounts in credit organisations and independently handling certain types of property.

State-financed institutes operate in the field of science, education, health, culture and others, whereas state-owned institutes operate in the field of national defence, state security and mental health services. State-financed institutes, unlike state-owned ones, are allowed to engage in commercial activity.

Normative per capita financing is one of the instruments permitting total transparency with regards to budget distribution and directly ties the volume of financing with the consumer of the educational service, following the principle of 'money follows the student'.

Another tool of government funding used during the period 2006–10 was funding of the educational system via medium-term programmes. Within the framework of the above-mentioned programmes, the establishment of modern educational infrastructures is financed first. These infrastructures include educational computer networks, electronic libraries for educational programmes and learning resources, software systems for administration of the education system and the establishment and development of shared resource centres within the education system.

Another direction for targeted funding of VET institutes is the National Priority Project on Education. Since 2007, hundreds of education institutes at different levels have received funds for major projects aimed at the development of educational and innovative activities.

Programmes for the integration of science and education have also been boosted in the last few years. These programmes aim at improving the efficiency of resource utilisation in the integrated scientific and educational environment based on a correction of existing principles of funding scientific research within higher education. The financial means have been redistributed in favour of funding scientific research by means of grants and by allowing scientific and educational institutes to participate in tenders (competitions), irrespective of their form of ownership and departmental affiliation.

The funding of elementary and secondary education institutes has transitioned according to standards of government funding, which are differentiated depending on the vocational training profile. During the transfer of the administration of elementary and secondary educational institutes to the districts, constituencies of the Russian Federation will receive allocated grants.

4. How effective are VET reforms when all concerned parties are involved in VET policy development and implementation and to what extent are these reforms achievable?

In order to increase the investment appeal of the education system, the following was done:

- A variety of organisational and legal forms of educational organisations was introduced (discussed in the previous section);
- Conditions have been created to involve employers in the funding of elementary and secondary VET educational institutes (see Chapter C, section 3).

5. What are the key components for improving VET efficiency and quality?

There are several factors of paramount importance for improving VET efficiency and quality.

a) Development of an advanced training system for academic staff

Currently, VET teachers are obliged to attend at least one advanced training programme every five years. In most cases, the duration of such courses does not go over 72 hours, their relevance and effectiveness is monitored only by the suppliers of educational services themselves and there is usually no external assessment in place. At the same time, the experience of leading enterprises that very actively introduce such innovative developments has shown that, in order to be effective in an increasingly competitive environment, employees take advanced modular training programmes once or twice a year. Therefore, the advanced training institute should transfer to a modular-credit scheme and personalised finance mechanisms. Currently new models of advanced training are being developed as part of the federal target programme for the development of education (the project titled Experiment in Personalised Financing of the Advanced Training System).

An effective method for providing incentives to teachers to strive for professional development is the accreditation requirement for VET institutes, particularly with regards to professional qualifications of teachers and their effectiveness not only on the educational level but also in scientific research and innovative activity.

Resolving the problem of attracting young people into scientific research, education and advanced technologies, and their reinforcement in these fields, could also directly impact on the quality of VET. The Federal Target Programme for Scientific and Academic Personnel in an Innovative Russia 2009–2013 aims at replenishing these scientific and academic human resources. In the framework of this programme, scientists and academic groups that demonstrate successful careers as scientists and teachers and that participate in effective preparation of new scientific and academic staff will receive significant support. Projects carried out as part of the same federal target programme for 2009–10 provided the opportunity to 250 PhDs under the age of 35 to acquire international experience of scientific research under the supervision of 235 invited researchers from 17 different countries, including the USA, Germany, France, Norway, Great Britain, Italy, Czech Republic, Canada and Finland. Around 17,600 researchers have participated in the research projects carried out within the framework of this programme in the period 2009–10, including some 4,000 PhDs, 3,000 doctors of science under the age of 35 years, 4,000 postgraduates and 6,000 students.

b) Implementation of modular results-orientated programmes

Modular programmes allow the rapid introduction of new educational modules about current and future issues and directions of technological development, thus ensuring the advantageous character of VET and a flexible range of opportunities for professional growth, adjustability to ever-changing conditions and re-training in the event that some professions or specialisation become obsolete.

The evolving nature of the labour market and the personalisation of educational paths require multilevel and multidirectional educational programmes, wider selection and the introduction of an open market of educational programmes and modules instead of a fixed set of disciplines (subjects).

Taking these requirements into account, an experiment has been carried out since 2009 for the development and implementation of applied bachelor programmes. These programmes are more orientated to the requirements of employers and are implemented jointly by higher

and secondary education institutes. This experiment will allow the development of new forms and methods of organising the educational process, which will enable qualified technical personnel to be trained with all the contemporary competencies sought after by advanced technological enterprises.

The introduction of modular programmes involves the development of indicators, which will define the training modules composing educational programmes. These indicators will then be used for the development educational programme standards which, once met, will result in award of a certain qualification level.

c) Introduction and development of an independent national and public education quality evaluation and monitoring system

This system will be based on an integrated evaluation procedure designed to protect all consumers of educational services. The government cannot and should not have the sole responsibility for the quality assurance of educational programmes.

A competency-based approach requires relevant updates for the effectiveness evaluation system and the quality of educational programmes. Directions for development of such a system involve:

- Improvement of objective procedures of the unified state examination in accordance with the results of completed general education and expansion of an equivalent approach to other levels of education;
- Stimulation of public and professional quality evaluation of education results, programme accreditation and certification and qualifications awards to graduates and also recognition and integration of the same quality evaluation system within the framework of national quality assessment procedures;
- Expansion of participation in current international comparative studies on the quality of education;
- Improvement of human resources and extension of the authority of education regulatory bodies through the development of a system of state and public administration of VET.

d) Development and introduction of the NQF

One of the key factors of the development of the VET system is the further development and introduction of the NQF, which should be based upon and operate in accordance with the relevant European conventions. The NQF is backed up by such tools as the system for accounting for and accumulating credits, adjusted to the needs of the national education system and compatible with the equivalent European systems—the European Credit Transfer System (ECTS) and the European Credit System for VET (ECVET)—and with the national system for qualifications certification.

e) Development of support tools including a system for accounting for and accumulating credits

This needs to be adjusted to the needs of the national education system and needs to be compatible with the equivalent European systems and with the national system for qualifications certification.

f) Development of an integrated educational programme classification system

This will apply to all levels of education and will ensure genuine academic freedom for education institutes and the national system of education statistics that will enable supply and demand on the labour market and the educational services market to be analysed.

g) Provision of an innovative educational environment at all education system levels

This involves access to educational resources, primarily open-access national libraries and electronic educational resources, including both local materials and collections of the best educational resources from around the world. Relevant projects for the development of modern systems of electronic educational resources have been approved and carried out, along with

relevant training for teachers as part of the federal target programme for developing education. Similar projects are also commissioned under the Presidential Commission for Modernisation and Technological Development of Russia's Economy. The required amendments with regard to informational and professional competencies have been introduced in the reviewed job specifications for positions in the educational system and serve as a basis for the refurbishment of the advanced training system, certification of academic personnel and the quality standards of educational colleges.

6. What future steps will be taken to ensure VET effectiveness and quality assurance, in particular, to strengthen and improve institutional mechanisms for VET policy implementation and management?

Amongst the planned actions aimed at improving the effectiveness and quality of VET in the near future are the following:

- To improve the quality of human resources employed by the education system. The departmental method of remuneration for education personnel is planned to be further improved. An important element of staff quality improvement is the modernisation of training, re-training and advanced training systems for education personnel. The necessary conditions are also created for the development of a managerial layer within the education system, with advanced training and re-training to be provided to the current mid-level managerial staff.
- To use the existing experience of introducing new conditions in VET institutes to gradually improve remuneration systems, incentives and motivations in accordance with the challenges set by innovative development. This can be achieved through reviewing criteria and procedures for distributing incentive payments, creating a motivation fund, etc.
- To share practical experiences of public participation in education administration, e.g. the introduction of boards of governors and supervisory boards that would increase the level of control over budgetary spending and therefore reduce the risks of investing in education.
- To create the right conditions for ensuring total transparency of financial management processes used by educational institutes and to develop and implement mechanisms and forms of public reporting on the work of educational institutes at all levels and develop independent ways of auditing their activities.
- To create a modern system for monitoring and compiling education statistics in accordance with international standards.
- To develop a student self-management system as an innovative, independent and responsible activity for students, aimed at resolving the most important issues in their daily life, and developing social activities support by social initiatives.

F. Key directions for VET system modernisation and future development

1. What are the principal directions for modernisation in the areas of social partnership, networking and the continuous education system?

Modernisation (development) of VET system in terms of developing social partnerships, networking activity and continuous education primarily includes leading educational institutes (identified during the National Priority Project on Education and other federal and district programmes) sharing their experiences with regards to:

- Development and improvement of contractual and institutional forms of social partnership;
- Development and introduction of new methods of interaction between educational institutes (elementary, secondary and higher education and VET institutes) and social partners, Russian constituency authorities and employers in order to ensure that the needs of constituencies are addressed;
- Further development of models and methods of networking between VET institutes through the broad introduction of networking activity in VET institutes (and different levels of governance at both district and interregional level) in order to ensure effective use of resources and improve the quality of VET;
- Development of the methodological base for continuous education, including establishment of a federal bank of advanced VET and re-training programmes.

The experience acquired from the experiment (2010–2014) for development and implementation of the applied bachelor programmes becomes critically important as part of the VET modernisation process. This experiment allows the development of new forms and methods for organising the educational process with the involvement of employers' associations, an obligatory element of the programme of vocational modules, which will ensure reconciliation of theoretical and practical training.

The experiment commenced in September 2010. Its implementation is to a large extent orientated to the needs of the employers. It is assumed that such programmes will allow the graduate to receive not only an academic degree but also a professional qualification. These programmes are carried out by higher education institutes or in cooperation with secondary VET institutes.

It is expected that the practical character of such programmes in combination with theoretical preparation will reduce the time required for young people to enter the labour market in the circumstances of a demographic crisis and an ageing workforce. It will also ensure professional mobility for graduates. This way the risk of unemployment amongst graduates will be reduced and their social security will be ensured. It is also expected that the applied bachelor programmes will be more appealing to the population than the secondary VET programmes.

Special reference should be made to VET and science consortiums for the development of networks and the integration of higher education institutes with elementary and secondary level institutes. Another key factor for the development of the VET system is the further development and introduction of the NQF (see Chapter E, section 5 d) above).

2. Have the indicated directions been supported by any international or national projects or as part of state VET policy?

The above directions for the modernisation of the VET system have received significant support within the framework of the National Priority Project on Education, and federal target programmes for development of education 2006–2010 for the creation of educational circles (introduced by the Russian government in 2003) and the introduction of applied bachelor programmes in institutes of secondary and higher VET, etc.

International projects aimed at supporting reform of the Russian VET system have been virtually phased out.

3. What are the impediments for a mass introduction of modernisation processes?

The main impediments for the mass introduction of modernisation processes are as follows:

- Conflicts of interest between the business world and education. Specifically, educational institutes are trying to preserve their independence from the labour market with increased government spending on education. Simultaneously, businesses are striving to reduce their financial involvement in the development of VET due to management difficulties and a lack of transparency in processes.
- The development of the VET system is trying to catch up with the needs of the developing economy, which relates to the predominance of government participation in the management of VET.
- The network of VET institutes (created in the past for the purposes of the Soviet economy) is largely indifferent to any fundamental changes.
- Modern managerial resources capable of ensuring effective development of VET are lacking.
- Internal and international crises have led to a slowdown in economic growth.

4. What measures will be taken to promote modernisation processes in VET?

Measures will be taken, according to the three main directions for modernisation of VET, as follows:

- Introduction of state-public management model for the VET system in order to implement social and economic development strategies;
- Introduction of a state-public management system for content and results of VET;
- Development of re-training and advanced training systems for human resources in order to create human capital for the modernisation of VET.

Specific measures include the following:

- Methods for forecasting human resource needs have been developed and piloted taking into account the proposals of the employers;
- The range of expertise of the educational standards has been approved by enterprises;

- Methods of financial assistance for re-training of the academic and teaching staff have been prepared, based on flexible programme selection by users;
- A nationwide system of education quality evaluation has been developed and is currently being implemented;
- A programme for anti-crisis measures has been developed for 2009 and 2010;
- A joint project has been prepared by the National Agency for Qualifications Development and the National Training Foundation, titled Development and Implementation of Networking Models for Educational Institutes in the Framework of the VET Modernisation Programme in Russian Federation Constituencies.

Main documents regulating the implementation of the above measures

- Federal Law No. 307, of 1 December 2007, on the introduction of amendments to certain Russian Federation legislative acts in order to enable employers' associations to participate in the development and implementation of state policy on VET. This law has made compulsory the condition that the requirements of the employers must be taken into consideration for the development of the new generation of Federal State Educational Standards for VET.
- Federal Law No. 174, of 3 November 2006, on autonomous institutes (passed by the Russian parliament on 11 October 2006 and approved by the Council of Federation on 27 October 2006).
- Federal Law No. 83 of 8 May 2010, on the introduction of amendments in certain Russian Federation legislative acts in connection to the improvement of the legal status of state (municipal) institutes (passed by the Russian parliament on 22 April 2010 and approved by Council of Federation on 28 April 2010).
- Federal Law No. 1032-1, of 19 April 1991, on the employment of the population in the Russian Federation.
- Federal Law No. 287, of 25 December 2008, on the introduction of amendments into Federal Law No. 1032-1.
- The Framework of Actions for the Labour Market (approved by the Government Decree No. 1193-p on 15 August 2008).

Annexes

Additional data on the scope of VET and its legal and institutional framework

1. Basic VET structure and components. Definition of internal and external processes.

The VET system in Russia includes elementary, secondary and higher VET levels and also includes further vocational education⁴.

The goal of elementary VET, the first level of VET, is to prepare skilled labour. Students enrolling after 9 years of schooling undergo 2-3 years of vocational training and those enrolling after 11 years of schooling undergo 2 years of vocational training.

The goal of secondary VET is to prepare specialist-practitioners and mid-tier employees covering all industries. Two main educational programmes are covered by secondary VET: basic and in-depth professional preparation. The length of a basic full-time preparation course is usually 2-3 years depending on the specialisation. The length of on/off-site training on a part-time basis is 1 year longer. If the secondary VET is part of elementary general education the course is 1 year longer than the course carried out as part of secondary (full) general education. Individuals with secondary VET in the relevant specialisation can enter higher VET via fast-track programmes. The duration of education in a higher education institute is reduced by 1 year if the student has a secondary basic VET qualification, or by 1-2 years if the student has a secondary advanced VET qualification.

In 2005 state-owned secondary VET institutes (colleges) were introduced. The Federal Law on Higher Vocational and Post-Graduate Education defines two levels (or degrees) of higher education:

- First level: basic higher (bachelor) of 4 years duration.
- Second level: professional course of 5 years duration (the pre-existing format preserved for a limited number of professions) and master's degree of 6 years duration (the new format is a 4-year bachelor degree and a 2-year master's degree).

Further education is also on offer to fully cover the needs of citizens, the state and society. The following are offered:

- Programmes offered by general education and VET institutes (in addition to the main educational programmes);
- Programmes offered by further education institutes (advanced training institutes, vocational guidance centres, schools of music and art, schools of design and fine art, student activity centres, young technician centres, young natural scientist centres and other institutes with relevant licenses);
- Programmes offered by individual education staff.

Russian citizens have the opportunity to choose various educational paths and take up advanced training at a range of VET and further vocational training levels.

NQF qualification	Ways of achieving the relevant qualification level
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⁴ In accordance with the draft Federal Law on Education, which is expected to be ratified at the end of 2010, the Russian education system will consist of the following educational levels: (1) pre-school education, (2) general education (preliminary, elementary and secondary), (3) intermediate vocational education (to prepare skilled labour and mid-tier specialists), and (4) higher education (bachelor, master's, specialist training and training of academics).

levels	
Level 1	Work experience, and/or short-term on-the-job training and/or a seminar with a minimum of elementary general qualification in place
Level 2	Work experience, and/or vocational training (short-term courses in an educational institute or company) with a minimum of basic general qualification in place
Level 3	Work experience, and/or vocational training (courses of up to 1 year duration in a VET institute or company) with a minimum of secondary (full) general qualification or elementary VET qualification, without receiving the secondary (full) general education as part of the basic general
Level 4	Elementary VET combined with or part of secondary (full) general education and work experience, or vocational training (courses of up to 1 year duration in a VET institute and further VET programmes) and work experience
Level 5	Secondary VET combined with or part of secondary (full) general education or elementary VET and work experience
Level 6	Bachelor degree (as a general rule). In some cases secondary VET combined with or part of secondary (full) general education and work experience
Level 7	Master's degree (following completion of bachelor degree) and work experience. Specialisation (following completion of secondary (full) general education) and work experience or bachelor degree and further VET (MBA programmes etc) and work experience
Level 8	Post-graduate education (programmes leading to a PhD) and/or work experience
Level 9	Post-graduate education (including a PhD and work experience or the degree of Doctor of Sciences and work experience) and/or further VET or work experience and public and professional recognition at the industry level, across industries or at the international level.

2. Legal, institutional, national and sociopolitical frameworks governing various structure components

Governance of the VET system is carried out on at both the federal (Ministry of Education and Science) and district levels.

Federal services reporting to the Ministry of Education and Science are the Federal Service for Intellectual Property, Patents and Trademarks (Rospatent) and the Federal Service for Supervision in Education and Science (Rosobrnadzor). There are also relevant services appointed at the district level.

At the educational institute level, except for the appointed management structure, board of governors, governing and supervisory boards can also participate in management. These boards can consist, depending on the bylaws of each educational organisation, of employers' representatives, parents and students.

The legal framework for education is the Constitution of the Russian Federation, the Federal Law on Education and other relevant federal laws, presidential decrees, international agreements of the Russian Federation with regards to education and federal authorities' regulations, laws and standards with regards to education voted by the constituencies of the Russian Federation.

The issue of the autonomy of VET institutes is governed by the Federal Law No. 174, of 3 November 2006, on autonomous institutions (passed by the Russian parliament on 11 October 2006 and approved by the Council of the Federation on 27 October 2006) and Federal Law No. 83, of 8 May 2010, on the introduction of amendments in certain Russian Federation legislative acts in connection with the improvement of the legal status of state (municipal) institutions (passed by the Russian parliament on 22 April 2010 and approved by the Council of the Federation on 28 April 2010).

What is covered by the concept of adult education strategy and policy?

The need for adult training is a contemporary issue, caused by the accelerated ageing of previously acquired competencies and the constant necessity to develop new ones. This problem has become more apparent in Russia during the economic crisis. A need has been identified for advanced training, which can be interpreted as follows:

- The process and the outcome of training (vocational training, re-training and advanced training) that comes before formal redundancy without workers losing their qualifications or with the view to undergo advanced training to ensure future employment
- Joint measures taken by education authorities, employment services, enterprises, organisations and VET institutes to re-train and employ redundant labour before the cancellation of their employment agreements with their employers.

In the near future we expect the introduction of the model of interaction (partnership) being currently developed between elementary, secondary and higher VET institutes, constituency authorities and employers in constituencies of the Russian Federation in order to improve VET quality and meet the needs of the Russian constituencies.

What is the current lifelong education strategy and the part to be played by VET?

The Russian Federation education system offers the necessary conditions for lifelong education:

- Successive basic educational programmes and various educational programmes are on offer;
- New educational programmes are being developed for different directions to meet the evolving needs of citizens and the labour market;
- New national further education and advanced training programmes for redundant labour are being developed;
- A personalised funding project has been developed for further education programmes in the public sector.

It must be noted, however, that there is currently no integrated strategy for adult education in place.

EDUCATIONAL LEVEL (ISCED) OF THE POPULATION BY AGE, GENDER AND URBAN/RURAL
BREAKDOWN

Source: Population Census 2002

POP. AGED 15 AND OLDER	TOTAL	SECOND STAGE TERTIARY ISCED 6	TERTIARY TYPE A ISCED 5A	TERTIARY TYPE B ISCED 5B	UPPER SECONDARY VET & POST- SECONDARY NON- TERTIARY ISCED 3C ISCED 4C	UPPER SECONDARY GENERAL ISCED 3A	LOWER SECONDARY ISCED 2	PRIMARY COMPLETED ISCED 1	PRIMARY NOT COMPLETED	NONE	NOT STATED
TOTAL	121,300,235	369,134	19,009,265	34,185,178	15,366,897	23,760,253	16,695,335	9,349,775	529,510	670,480	1,364,408
15-17	7,623,254	-	-	83,082	127,574	1,652,912	5,030,100	609,849	14,630	22,542	82,565
18-19	5,177,374	-	2,141	847,208	505,026	2,939,899	745,745	73,490	5,550	14,128	44,187
20-24	11,466,404	19,608	1,327,446	3,603,847	1,567,011	3,587,335	1,049,740	148,931	11,272	29,477	121,737
25-29	10,612,976	45,802	2,221,992	3,493,758	1,580,505	2,144,290	866,471	98,881	9,599	24,283	127,395
30-34	9,836,374	37,489	2,050,492	3,751,770	1,513,283	1,774,249	478,555	67,405	8,189	20,625	134,317
35-39	10,216,384	35,401	2,199,037	3,901,625	1,606,410	1,855,384	396,401	64,440	7,718	20,282	129,686
40-44	12,546,470	42,435	2,577,184	4,622,462	2,073,219	2,425,508	534,908	90,088	8,843	21,787	150,036
45-49	11,605,892	40,569	2,310,789	4,082,942	1,969,185	2,181,655	729,006	131,389	8,535	18,715	133,107
50-54	10,071,198	38,132	1,991,497	3,402,742	1,539,752	1,831,111	933,797	188,494	8,189	16,005	121,479
55-59	5,347,399	26,163	1,162,310	1,596,758	712,127	857,126	655,319	247,800	6,485	11,012	72,299
60-64	7,983,062	31,607	1,274,898	1,891,975	866,289	1,070,647	1,620,177	1,093,221	23,069	30,642	80,537
65-69	6,344,576	22,658	852,236	1,270,873	567,122	589,748	1,287,384	1,582,527	52,784	61,385	57,859
70+	12,468,872	29,270	1,039,243	1,636,136	739,394	850,389	2,367,732	4,953,260	364,647	379,597	109,204
No data	119,895	182	4,021	7,489	3,042	5,917	2,659	1,661	455	272	94,197

Men	55,407,078	201,320	8,411,506	14,455,076	8,705,588	11,482,282	7,813,004	3,402,076	114,610	167,501	654,115
15–17	3,871,715	-	-	43,605	78,164	766,629	2,587,402	332,099	7,988	13,553	42,275
18–19	2,632,472	-	1,022	433,769	306,466	1,352,531	453,735	50,808	3,086	8,333	22,722
20–24	5,783,137	9,623	557,610	1,680,498	911,526	1,773,759	660,730	104,035	6,354	17,139	61,863
25–29	5,314,150	23,242	968,779	1,588,350	915,646	1,134,072	533,948	66,095	5,151	13,349	65,518
30–34	4,914,529	18,055	886,636	1,714,117	883,756	993,375	291,896	41,329	4,437	10,968	69,960
35–39	5,024,854	17,854	962,185	1,722,791	931,213	1,034,912	235,649	38,356	4,039	10,564	67,291
40–44	6,084,104	22,304	1,130,828	1,964,269	1,197,438	1,311,091	313,417	53,365	4,615	11,304	75,473
45–49	5,493,467	22,562	1,033,768	1,653,343	1,127,088	1,106,164	396,292	75,823	4,186	9,470	64,771
50–54	4,642,046	22,745	924,308	1,330,293	884,237	851,458	460,149	100,349	3,732	7,193	57,582
55–59	2,365,925	15,736	520,512	631,469	408,821	359,875	277,657	110,521	2,693	4,230	34,411
60–64	3,250,993	19,269	603,251	700,291	469,835	378,324	567,665	459,738	7,777	9,587	35,256
65–69	2,444,084	13,798	394,218	463,610	294,114	202,276	416,883	608,093	13,488	14,250	23,354
70+	3,585,602	16,132	428,389	528,669	297,284	217,818	617,581	1,361,465	47,064	37,561	33,639
No data	60,366	106	1,929	3,849	1,877	3,006	1,352	675	219	117	47,236
Women	65,893,157	167,814	10,597,759	19,730,103	6,661,309	12,277,970	8,882,331	5,947,699	414,900	502,979	710,293
15–17	3,751,539	-	-	39,478	49,410	886,282	2,442,698	277,750	6,642	8,989	40,290
18–19	2,544,902	-	1,119	413,439	198,560	1,587,368	292,010	22,682	2,464	5,795	21,465
20–24	5,683,267	9,985	769,836	1,923,349	655,485	1,813,576	389,010	44,896	4,918	12,338	59,874
25–29	5,298,826	22,560	1,253,213	1,905,407	664,859	1,010,219	332,523	32,786	4,448	10,934	61,877
30–34	4,921,845	19,434	1,163,856	2,037,653	629,527	780,874	186,659	26,076	3,752	9,657	64,357
35–39	5,191,530	17,547	1,236,852	2,178,835	675,197	820,471	160,752	26,084	3,679	9,718	62,395
40–44	6,462,366	20,131	1,446,356	2,658,192	875,781	1,114,418	221,491	36,723	4,228	10,483	74,563
45–49	6,112,425	18,007	1,277,021	2,429,600	842,097	1,075,490	332,714	55,566	4,349	9,245	68,336
50–54	5,429,152	15,387	1,067,189	2,072,449	655,515	979,653	473,648	88,145	4,457	8,812	63,897
55–59	2,981,474	10,427	641,798	965,288	303,306	497,252	377,662	137,279	3,792	6,782	37,888

60–64	4,732,069	12,338	671,647	1,191,683	396,454	692,324	1,052,512	633,483	15,292	21,055	45,281
65–69	3,900,492	8,860	458,018	807,263	273,008	387,472	870,501	974,434	39,296	47,135	34,505
70+	8,883,270	13,138	610,854	1,107,467	442,110	632,571	1,750,151	3,591,795	317,583	342,036	75,565
No data	59,529	76	2,092	3,640	1,165	2,911	1,307	986	236	155	46,961
URBAN	90,119,616	343,356	16,720,212	27,387,567	10,336,201	17,894,511	10,762,914	4,834,173	258,197	256,301	1,326,184
15–17	5,571,618	-	-	70,781	94,469	1,374,747	3,579,771	355,682	9,036	11,201	75,931
18–19	4,086,713	-	2,098	693,740	363,093	2,445,946	495,635	33,831	3,164	6,699	42,507
20–24	8,856,140	18,136	1,171,052	2,947,641	1,098,631	2,825,365	589,225	67,434	6,657	13,420	118,579
25–29	8,149,844	42,874	1,990,172	2,847,344	1,078,573	1,519,602	483,115	47,007	5,997	10,817	124,343
30–34	7,433,785	34,868	1,817,179	2,971,703	987,720	1,198,883	244,237	33,775	5,168	8,874	131,378
35–39	7,505,464	32,444	1,910,992	3,010,899	1,005,419	1,193,587	182,646	29,932	4,822	8,072	126,651
40–44	9,247,329	38,969	2,235,840	3,585,559	1,301,919	1,632,533	251,351	40,646	5,487	8,469	146,556
45–49	8,692,561	37,420	2,011,310	3,217,813	1,273,205	1,575,974	376,281	57,708	5,234	7,465	130,151
50–54	7,709,838	35,381	1,738,036	2,738,000	1,034,086	1,406,287	541,645	86,370	4,811	6,245	118,977
55–59	4,152,260	24,601	1,026,677	1,324,215	505,262	685,839	399,203	108,064	3,432	3,949	71,018
60–64	5,743,047	29,510	1,123,954	1,561,442	606,663	842,221	999,284	482,043	9,896	9,365	78,669
65–69	4,416,699	21,212	755,566	1,045,959	407,129	470,099	860,990	760,937	20,998	17,697	56,112
70+	8,554,318	27,941	937,336	1,372,470	580,032	723,429	1,759,531	2,730,744	173,495	144,028	105,312
No data	111,894	168	3,783	6,795	2,647	5,158	2,039	1,147	374	186	89,597
Men	40,810,805	187,125	7,375,654	11,656,139	5,646,287	8,508,270	4,995,941	1,684,580	57,763	63,683	635,363
15–17	2,801,070	-	-	37,060	56,956	633,572	1,834,697	188,686	4,783	6,502	38,814
18–19	2,063,262	-	1,000	358,470	223,205	1,120,090	309,046	24,144	1,718	3,752	21,837
20–24	4,431,145	8,918	484,971	1,399,378	642,074	1,386,150	389,488	48,699	3,720	7,587	60,160
25–29	4,057,349	21,778	865,233	1,326,159	621,788	806,666	311,123	31,795	3,232	5,769	63,806
30–34	3,692,438	16,731	792,249	1,393,849	566,567	671,307	154,977	21,065	2,790	4,577	68,326

35–39	3,637,414	16,325	839,086	1,352,333	564,978	661,925	112,484	18,184	2,523	3,992	65,584
40–44	4,380,754	20,425	979,474	1,530,496	721,252	872,552	151,412	24,497	2,824	4,219	73,603
45–49	4,011,192	20,807	895,878	1,296,128	693,286	790,717	211,127	33,819	2,574	3,637	63,219
50–54	3,477,142	21,059	801,789	1,059,501	561,706	647,960	276,559	47,324	2,218	2,684	56,342
55–59	1,817,801	14,813	460,204	518,069	274,870	285,713	176,310	50,943	1,523	1,541	33,815
60–64	2,313,523	17,980	525,904	568,075	305,143	296,059	357,378	202,140	3,445	2,915	34,484
65–69	1,666,739	12,918	345,861	375,416	195,383	157,753	269,509	277,803	5,349	4,008	22,739
70+	2,460,976	15,371	384,005	441,205	219,079	177,806	441,831	715,481	21,064	12,500	32,634
No data	56,500	98	1,828	3,590	1,651	2,649	1,048	487	183	87	44,879
Women	49,308,811	156,231	9,344,558	15,731,427	4,689,914	9,386,242	5,766,973	3,149,593	200,434	192,618	690,821
15–17	2,770,548	-	-	33,720	37,513	741,176	1,745,074	166,996	4,253	4,699	37,117
18–19	2,023,451	-	1,098	335,270	139,888	1,325,856	186,589	9,687	1,446	2,947	20,670
20–24	4,424,995	9,218	686,081	1,548,263	456,557	1,439,215	199,737	18,735	2,937	5,833	58,419
25–29	4,092,495	21,096	1,124,939	1,521,185	456,785	712,936	171,992	15,212	2,765	5,048	60,537
30–34	3,741,347	18,137	1,024,930	1,577,853	421,153	527,577	89,260	12,710	2,378	4,297	63,052
35–39	3,868,050	16,119	1,071,906	1,658,565	440,441	531,663	70,162	11,748	2,299	4,080	61,067
40–44	4,866,575	18,544	1,256,366	2,055,064	580,667	759,980	99,939	16,149	2,663	4,250	72,953
45–49	4,681,369	16,613	1,115,432	1,921,685	579,919	785,257	165,154	23,889	2,660	3,828	66,932
50–54	4,232,696	14,322	936,247	1,678,499	472,380	758,327	265,086	39,046	2,593	3,561	62,635
55–59	2,334,459	9,788	566,473	806,147	230,392	400,125	222,893	57,121	1,909	2,408	37,203
60–64	3,429,524	11,530	598,050	993,366	301,520	546,163	641,906	279,903	6,451	6,450	44,185
65–69	2,749,960	8,294	409,705	670,544	211,746	312,345	591,481	483,134	15,649	13,689	33,373
70+	6,093,342	12,570	553,331	931,265	360,953	545,623	1,317,700	2,015,263	152,431	131,528	72,678
No data	55,394	70	1,955	3,205	996	2,509	991	660	191	99	44,718
RURAL	31,180,619	25,778	2,289,053	6,797,612	5,030,696	5,865,741	5,932,421	4,515,602	271,313	414,179	38,224

15-17	2,051,636	-	-	12,302	33,105	278,164	1,450,329	254,167	5,594	11,341	6,634
18-19	1,090,661	-	43	153,468	141,933	493,953	250,110	39,659	2,386	7,429	1,680
20-24	2,610,264	1,472	156,394	656,206	468,380	761,970	460,515	81,497	4,615	16,057	3,158
25-29	2,463,132	2,928	231,820	646,413	501,932	624,689	383,356	51,874	3,602	13,466	3,052
30-34	2,402,589	2,621	233,313	780,068	525,563	575,365	234,318	33,630	3,021	11,751	2,939
35-39	2,710,920	2,957	288,045	890,726	600,991	661,797	213,755	34,508	2,896	12,210	3,035
40-44	3,299,141	3,466	341,344	1,036,902	771,300	792,976	283,557	49,442	3,356	13,318	3,480
45-49	2,913,331	3,149	299,479	865,129	695,980	605,681	352,725	73,681	3,301	11,250	2,956
50-54	2,361,360	2,751	253,461	664,742	505,666	424,824	392,152	102,124	3,378	9,760	2,502
55-59	1,195,139	1,562	135,633	272,542	206,865	171,288	256,116	139,736	3,053	7,063	1,281
60-64	2,240,015	2,097	150,944	330,533	259,626	228,426	620,893	611,178	13,173	21,277	1,868
65-69	1,927,877	1,446	96,670	224,914	159,993	119,649	426,394	821,590	31,786	43,688	1,747
70+	3,914,554	1,329	101,907	263,666	159,362	126,960	608,201	2,222,516	191,152	235,569	3,892
No data	8,001	14	238	694	395	759	620	514	81	86	4,600
Men	14,596,273	14,195	1,035,852	2,798,936	3,059,301	2,974,013	2,817,063	1,717,496	56,847	103,818	18,752
15-17	1,070,645	-	-	6,545	21,208	133,057	752,705	143,413	3,205	7,051	3,461
18-19	569,210	-	22	75,299	83,261	232,441	144,689	26,664	1,368	4,581	885
20-24	1,351,992	705	72,639	281,121	269,452	387,608	271,242	55,336	2,634	9,552	1,703
25-29	1,256,801	1,464	103,546	262,191	293,858	327,406	222,825	34,300	1,919	7,580	1,712
30-34	1,222,091	1,324	94,387	320,268	317,189	322,068	136,919	20,264	1,647	6,391	1,634
35-39	1,387,440	1,529	123,099	370,457	366,235	372,988	123,165	20,172	1,516	6,572	1,707
40-44	1,703,350	1,879	151,354	433,774	476,186	438,538	162,005	28,868	1,791	7,085	1,870
45-49	1,482,275	1,755	137,890	357,214	433,802	315,448	185,165	42,004	1,612	5,833	1,552
50-54	1,164,904	1,686	122,519	270,792	322,531	203,498	183,590	53,025	1,514	4,509	1,240
55-59	548,124	923	60,308	113,400	133,951	74,162	101,347	59,578	1,170	2,689	596
60-64	937,470	1,289	77,347	132,216	164,692	82,265	210,287	257,598	4,332	6,672	772
65-69	777,345	880	48,357	88,194	98,731	44,523	147,374	330,290	8,139	10,242	615

70+	1,124,626	761	44,384	87,464	78,205	40,012	175,750	645,984	26,000	25,061	1,005
No data	3,866	8	101	260	226	356	304	188	36	30	2,357
Women	16,584,346	11,583	1,253,201	3,998,675	1,971,395	2,891,729	3,115,358	2,798,106	214,466	310,361	19,472
15–17	980,991	-	-	5,757	11,897	145,107	697,624	110,754	2,389	4,290	3,173
18–19	521,451	-	21	78,169	58,672	261,512	105,421	12,995	1,018	2,848	795
20–24	1,258,272	767	83,755	375,085	198,928	374,362	189,273	26,161	1,981	6,505	1,455
25–29	1,206,331	1,464	128,274	384,222	208,074	297,283	160,531	17,574	1,683	5,886	1,340
30–34	1,180,498	1,297	138,926	459,800	208,374	253,297	97,399	13,366	1,374	5,360	1,305
35–39	1,323,480	1,428	164,946	520,269	234,756	288,809	90,590	14,336	1,380	5,638	1,328
40–44	1,595,791	1,587	189,990	603,128	295,114	354,438	121,552	20,574	1,565	6,233	1,610
45–49	1,431,056	1,394	161,589	507,915	262,178	290,233	167,560	31,677	1,689	5,417	1,404
50–54	1,196,456	1,065	130,942	393,950	183,135	221,326	208,562	49,099	1,864	5,251	1,262
55–59	647,015	639	75,325	159,142	72,914	97,126	154,769	80,158	1,883	4,374	685
60–64	1,302,545	808	73,597	198,317	94,934	146,161	410,606	353,580	8,841	14,605	1,096
65–69	1,150,532	566	48,313	136,719	61,262	75,127	279,020	491,300	23,647	33,446	1,132
70+	2,789,928	568	57,523	176,202	81,157	86,948	432,451	1,576,532	165,152	210,508	2,887
No data	4,135	6	137	434	169	403	316	326	45	56	2,243

PISA READING SURVEY RESULTS 2003–06

	Average score (points)	Distribution of 15-year old students based on their reading abilities, %					
		Level 5 (625.61 points)	Level 4 (552.89-625.61 points)	Level 3 (480.18-552.89 points)	Level 2 (407.47-480.18 points)	Level 1 (334.75-407.47 points)	Below Level 1 (less than 334.75 points)
2000	462	3.2	13.3	26.9	29.2	18.5	9.0
2003	442	1.7	9.3	24.5	30.4	21.3	12.8
2006	440	1.7	9.0	24.0	30.0	21.7	13.6

LEVEL OF ILLITERACY OF THE POPULATION BY GENDER AND AGE

Source: Population Census 2002

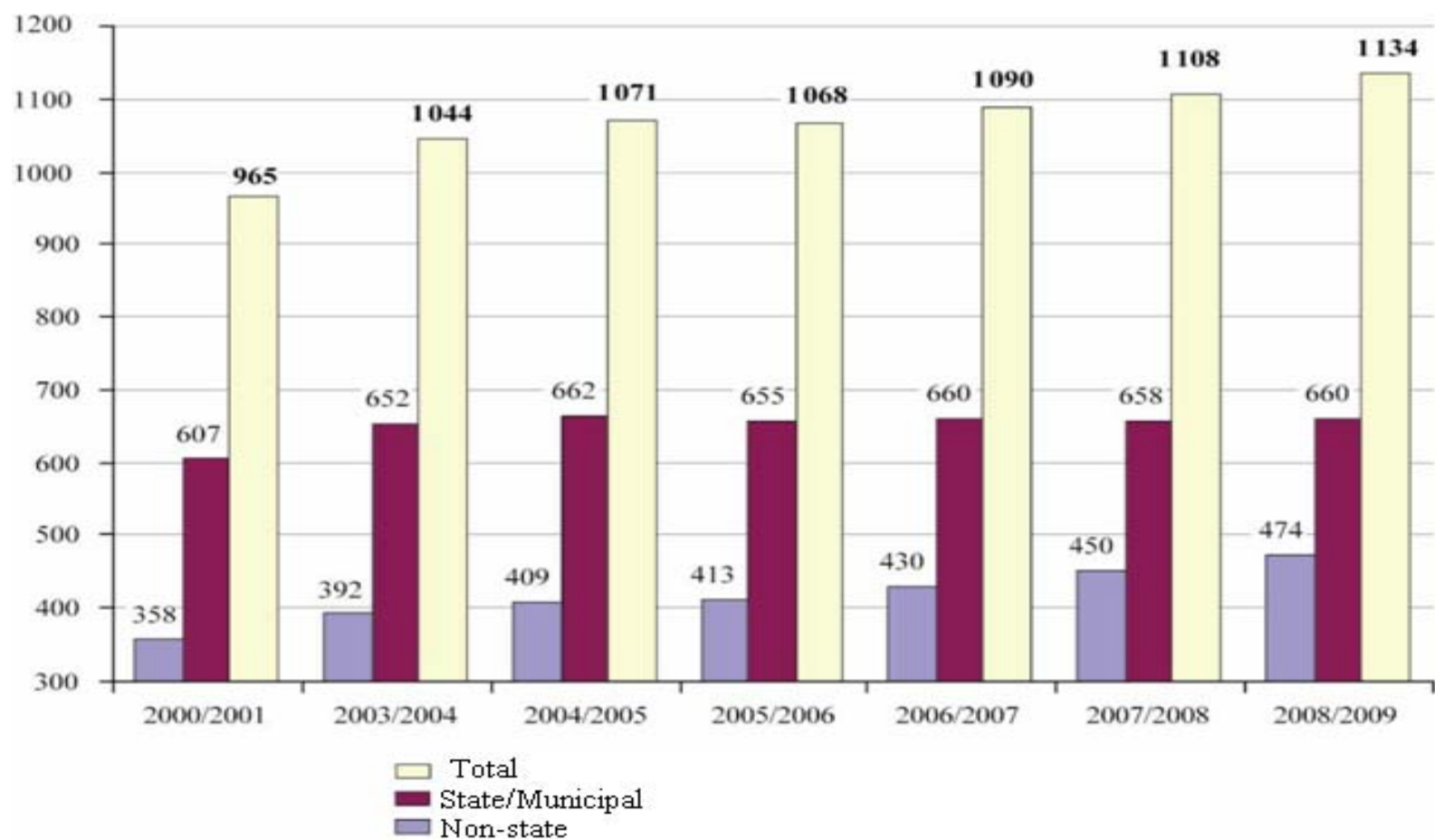
	%
POPULATION AGED 15 AND OLDER	0.55
15–17	0.30
18–19	0.27
20–24	0.26
25–29	0.23
30–34	0.21
35–39	0.20
40–44	0.17
45–49	0.16
50–54	0.16
55–59	0.21
60–64	0.38

65-69	0.97
70+	3.04
No data	0.23
Men	0.30
15-17	0.35
18-19	0.32
20-24	0.30
25-29	0.25
30-34	0.22
35-39	0.21
40-44	0.19
45-49	0.17
50-54	0.15
55-59	0.18
60-64	0.29
65-69	0.58
70+	1.05
No data	0.19
Women	0.76
15-17	0.24
18-19	0.23
20-24	0.22
25-29	0.21
30-34	0.20
35-39	0.19
40-44	0.16
45-49	0.15
50-54	0.16
55-59	0.23
60-64	0.44
65-69	1.21
70+	3.85
No data	0.26

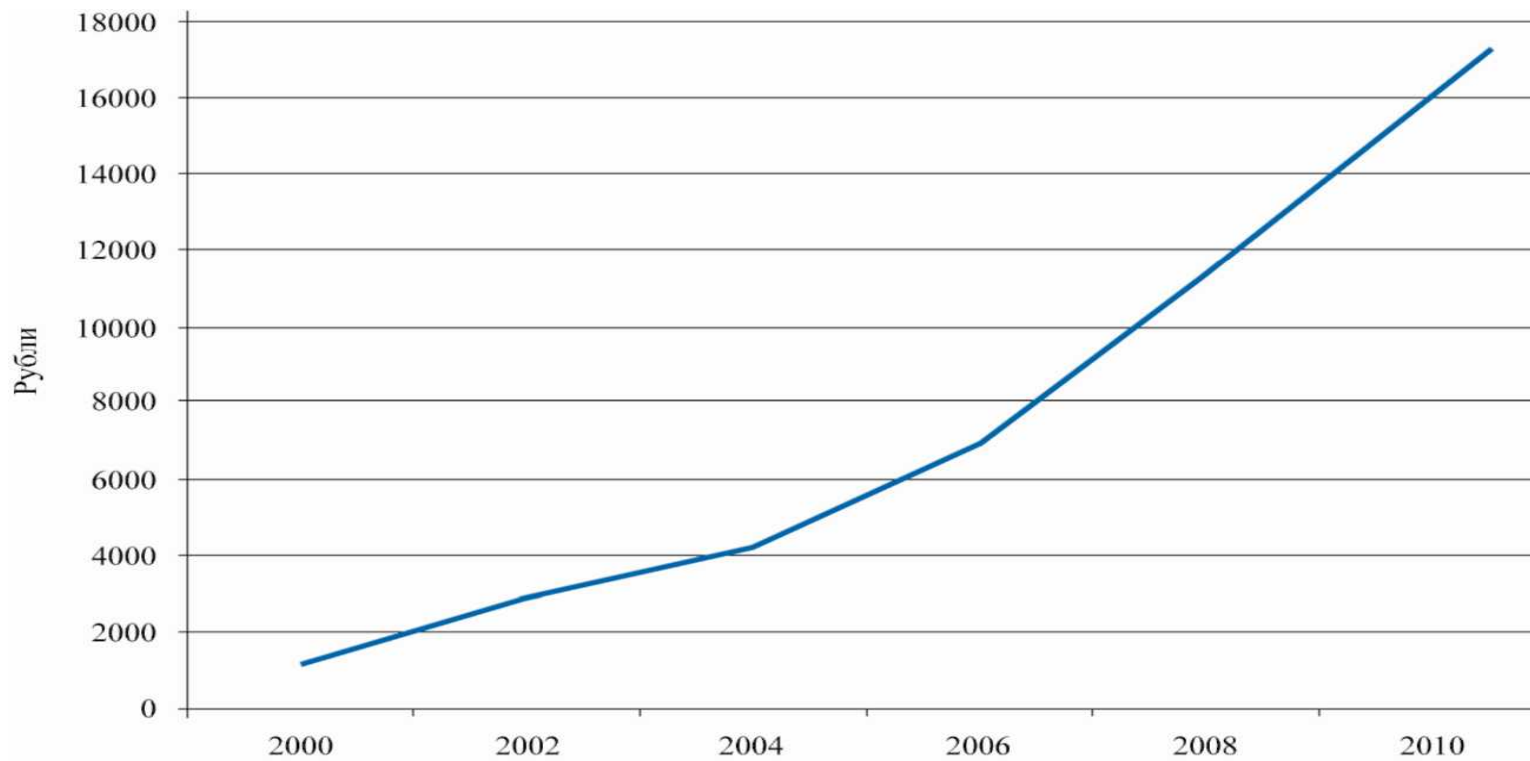
URBAN POPULATION AGED 15 AND OLDER		0.28
15-17		0.20
18-19		0.16
20-24		0.15
25-29		0.13
30-34		0.12
35-39		0.11
40-44		0.09
45-49		0.09
50-54		0.08
55-59		0.10
60-64		0.16
65-69		0.40
70+		1.68
No data		0.17
Men		0.16
15-17		0.23
18-19		0.18
20-24		0.17
25-29		0.14
30-34		0.12
35-39		0.11
40-44		0.10
45-49		0.09
50-54		0.08
55-59		0.08
60-64		0.13
65-69		0.24
70+		0.51
No data		0.15
Women		0.39
15-17		0.17
18-19		0.15

20-24	0.13
25-29	0.12
30-34	0.11
35-39	0.11
40-44	0.09
45-49	0.08
50-54	0.08
55-59	0.10
60-64	0.19
65-69	0.50
70+	2.16
No data	0.18
RURAL POPULATION AGED 15 AND OLDER	1.33
15-17	0.55
18-19	0.68
20-24	0.62
25-29	0.55
30-34	0.49
35-39	0.45
40-44	0.40
45-49	0.39
50-54	0.41
55-59	0.59
60-64	0.95
65-69	2.27
70+	6.02
No data	1.07
Men	0.71
15-17	0.66
18-19	0.80
20-24	0.71
25-29	0.60
30-34	0.52

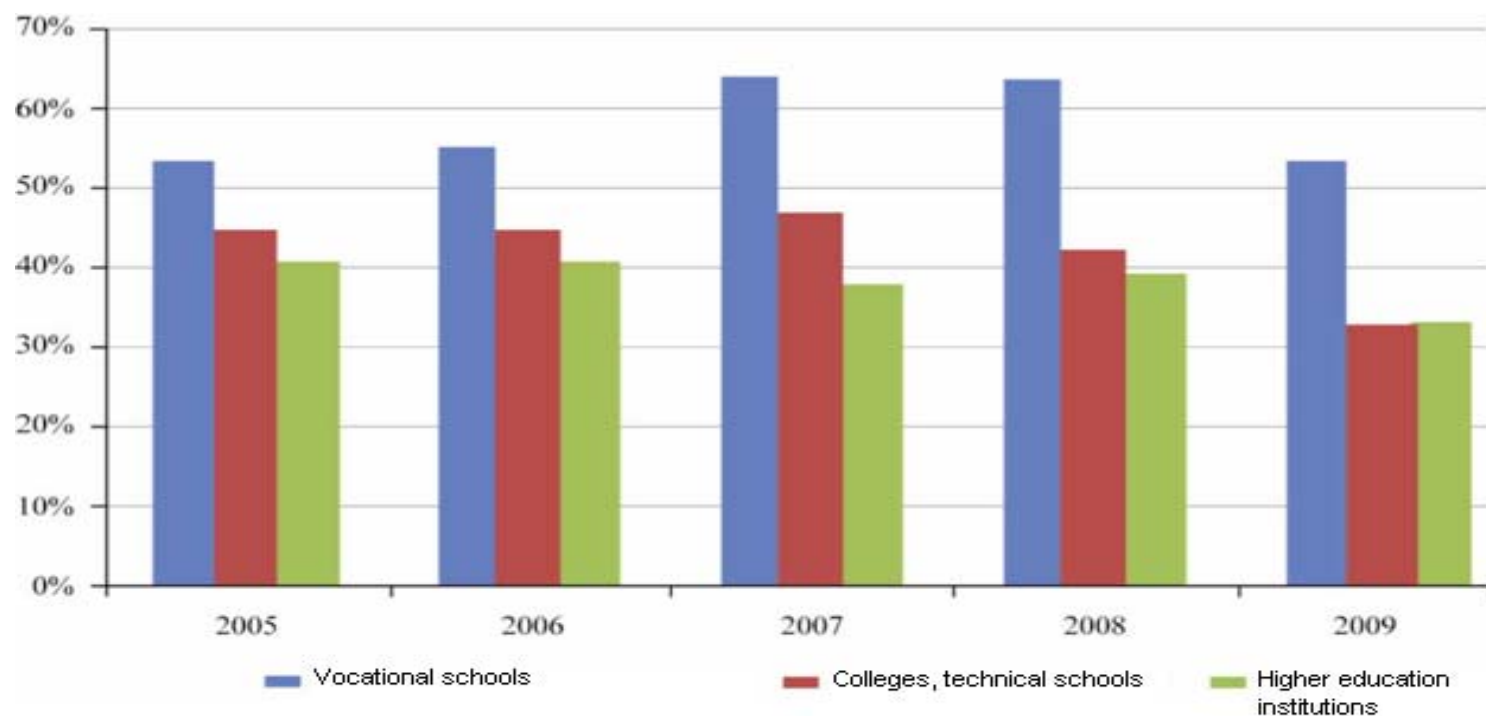
35-39	0.47
40-44	0.42
45-49	0.39
50-54	0.39
55-59	0.49
60-64	0.71
65-69	1.32
70+	2.23
No data	0.78
Women	1.87
15-17	0.44
18-19	0.55
20-24	0.52
25-29	0.49
30-34	0.45
35-39	0.43
40-44	0.39
45-49	0.38
50-54	0.44
55-59	0.68
60-64	1.12
65-69	2.91
70+	7.55
No data	1.35



Graph 2. Number of higher education institution in the Russian Federation in 2000-2009



Graph 3. Average monthly salary of educational sector employees (RUB) 2000-2010 (April-June 2010)



Graph 4. Percentage of academic staff, scoring as weak the training level graduates of vocational education institutions

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