
Dual VET in Russia: progress, problems and perspectives

Abstract

The topic of dual vocational education and training in Russia has become especially popular since 2013, when the project of the Agency for Strategic Initiatives (ASI), which was called “Training of personnel, which is meeting the requirements of high-tech industries based on dual education” was launched. Methodical support of the project was carried out by the Federal Institute for Development of Education (FIRO). At the same time, a project on Dual VET by the Russian-German Chamber of Commerce (AHK) VETnet was launched, which is still ongoing.

The essence and specifics of the dual VET system is largely formed due to the active cooperation of Russia and Germany in the field of vocational education. The activities of the Russian-German working group on vocational education, the cooperation between FIRO and the Federal Institute for Vocational Education of Germany (BIBB) plus AHK have undoubtedly made a contribution to the development of dual vocational education and training in Russia. The system of personnel training in Russian territories was characterized as insufficiently reacting to the transformation of the economy. The solution is the engagement of employers from industry, the creation of legal conditions for public-private partnership of state authorities, employers, vocational education organizations (VET colleges) and the development of a practice-oriented training system from career guidance, over vocational didactics to the assessment of qualifications/competences.

The article is based on the ASI project, and the best-practices examples of dual VET, which have emerged in Russia after 2016. Finally, conclusions will be drawn and recommendations offered for the further development of VET system in Russia and German-Russian cooperation in VET.

Keywords: *VET system development in Russia; dual system, Russian-German Joint working group on VET*

1 Introduction: the overall situation of VET in Russia

Interest in the dual VET system in modern Russia is not accidental. Vocational education has never been conceived without cooperation with the industry or without a certain way to organize practical learning. In the Soviet period of Russian history the principle of cooperation of educational organizations with labor collectives, the patronage of enterprises over educational institutions, the development of the training system at the workplace, and the support of young specialists were determined by law. According to the Article 64 of the RSFSR Law “On Public Education” by 1974 “enterprises, institutions and organizations

create the necessary conditions and training base for vocational training of workers and are responsible for the control over training”.

In the difficult times of the 90s and of the first decade of the 21st century, this interaction was established on the basis of centralized government power collapsed, but the need for it, of course, could not disappear. It just needed new mechanisms that meet the new conditions of socio-economic development. And the dual system has become regarded as one of the possible mechanisms in modern times (Government of the Russian Federation 2015).

At the joint meeting of the State Council and the Commission under the President on monitoring the achievement of target indicators of socio-economic development of Russia on December 23, 2013 Vladimir Putin noted that it is necessary to form a wide range of mechanisms for cooperation between business and educational institutions. “Training of skilled workers and engineering personnel for the real economy is not someone’s corporate, private task, it is the national need, one of the main requirements for increasing labor productivity, ... one of the key development objectives,” - he stressed (Administration of President of the Russian Federation Service 2013).

International processes in the field of vocational education and training allow us to speak about global methodological changes in the theory and practice of VET. Special feature of these changes is the consolidation of efforts by representatives of all stakeholders (both education and labor, and at all levels - from local to federal) to build VET system that is answering questions about the goals, subject conditions and tools of the changes.

Comparison of the key stages of VET school development in Russia and Germany (especially in the context of the innovation implementation dynamics) shows many advantages of vocational education management collegiality. This model of management was lost in Russian VET system before The Social Revolution (1917) historical period. The German experience clearly shows that loyalty to the traditions of co-management by all stakeholders, even in the most difficult crisis years, brings significant benefits and allows preserving the flexibility of the VET system.

Since the beginning of 21st century development of VET system in Russia is connected with changes of qualifications system and labor sphere. The main vector is strengthening of the connection between education and labor market in terms of tasks, content, quantitative indicators and quality requirements. Russian VET system in figures:

- 3,300 TVET schools and colleges
- 400 university departments deliver TVET programs
- Overall 2,8 million students
- Overall 300 000 teachers and trainers
- 530 professions.

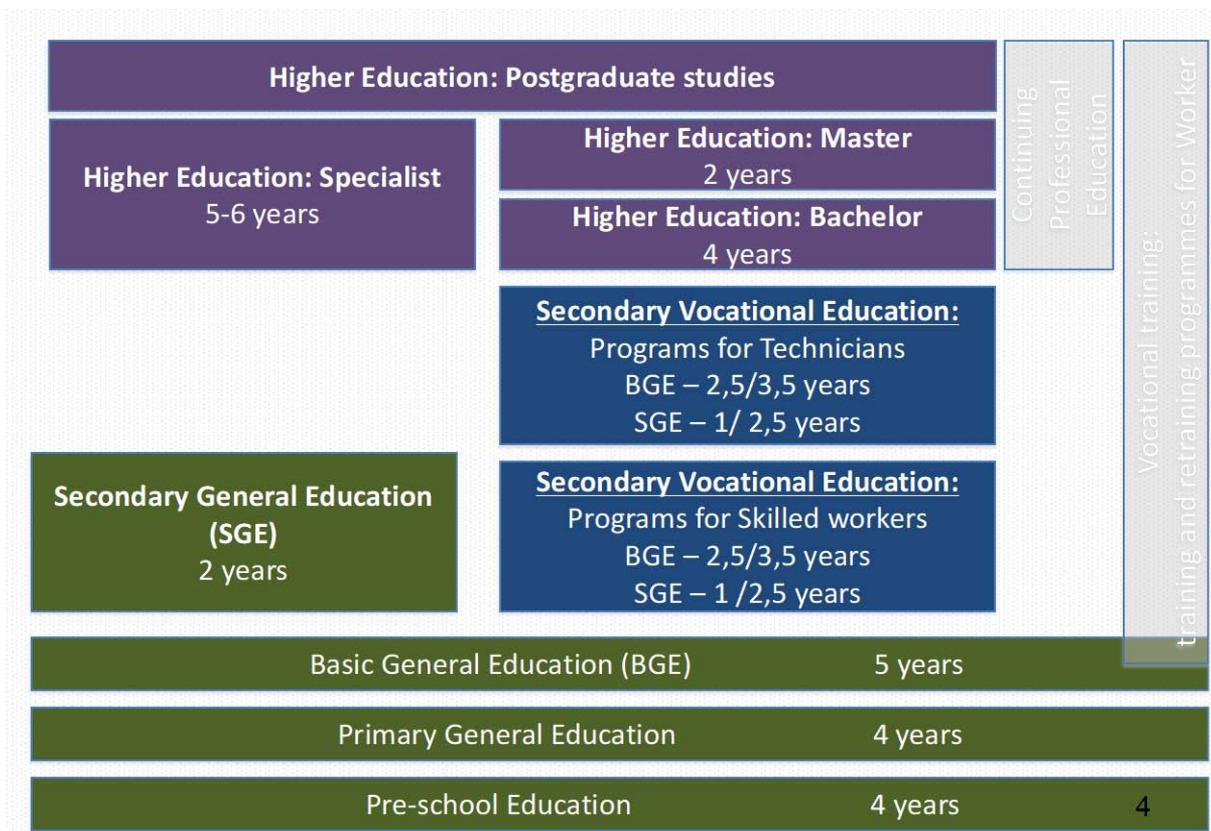


Figure 1: Russian system of Education

There are no dead-end branches in Russian education system. At the same time – great challenge is image of VET for young people, VET system attractiveness in comparison with High school.

In 2012 management of VET system was transferred from federal to regional level. 70 percent of finance is regional. The Federation finances VET through the federal program for the development of education.

Modernization process of the National Qualifications System (NQS) is going during last ten years. Occupational standards were developed (about one thousand now). They replaced job position’s descriptions. About one third of professions outdated. One fifth is new. This is result of the changes in technologies and industry development.

Key role in NQS development is delegated by the Federation to the professional community and employers. The Presidential National Council on Professional Qualifications was established, there are more than twenty eight Sectoral boards on professional qualifications. They work together with federal educational and methodical associations.

On federal level there are several organizations-stakeholders which have impact on the VET system:

- National Agency of Qualifications Development (NARK)

- Agency of Strategic Initiatives (ASI)
- Our institute – FIRO
- All of them are member of Russian-German Joint Working Group on VET.

It is necessary to see the place of the worker in new industries. Studies of this problem are conducted in Russia in various aspects: both in terms of new qualifications, new knowledge and skills, and in terms of the nature of human employment in the future. We need educational programs for workers oriented toward the development of entrepreneurial competencies, computer programs, high-tech measuring instruments, etc.

Key methodological approaches developing from the beginning of 2000-s are competence based approach and practical-oriented methods in VET. We have such achievements as:

- Regionalization of TVET: improving management
- Enlargement of educational organizations: formation of management teams
- Modernization of infrastructure: 7 interregional centers of competences, points of growth
- Consolidation of efforts for TVET and labor spheres: dual training, work-based learning
- WORLD SKILLS RUSSIA (WSR) movement development: improving VET image, provide HIGH TECH technologies in VET

But at the same time implementation processes are slow because of local interests. We face great challenges:

- Regionalization of TVET: disconnection of regional TVET systems
- Enlargement of educational organizations: problem of MONO towns and rural TVET organizations
- Modernization of infrastructure: 7 interregional centers of competences - necessity of the interregional network interaction; financial mechanisms
- Consolidation of efforts for TVET and labor spheres: mixing concepts: perspective and required professions; perspective - high tech; required - cook, hairdresser etc. - not for the economy growth, Financial part of business in TVET - less than 10 %
- WSR winner's qualification not always suitable for business.

The important role in studying and understanding in Russia of the dual system was played by the Russian-German working group on VET. Its thirteenth meeting is being held in 2019. The list of participants of the working group is unchanged: the co-chairs from the ministries of education of both countries, representatives of the German Federal Institute for Vocational Education (BIBB, iMOVE, GOVET units), the Federal Institute for Development of Education (FIRO RANEPa), the Agency of Strategic Initiatives (ASI), the International Bureau of the Federal Ministry of Education and Scientific Research, operator of the projects of the German Center for Aviation and Cosmonautics (DLR), the Russian Embassy in Germany and the German Embassy in Russia, the German-Russian Chamber of Commerce in Moscow, representatives of the Goethe-Institute in Moscow and National Agency for

Qualifications Development (NARK). The introduction of the German experience in the implementation of elements of dual system is not yet so large-scale, but very productive. Practice proves that in Russia there are prospects for the development of an effective and high-quality practice-oriented (including dual) VET system (ASI, Ministry of Education, & Science of the Russian Federation 2016).

The choice of an effective management model of VET system is becoming a key challenge for modern Russia. Employers have become more active in the last 5–10 years. (*for example, see:* Base Canter of the National Agency for Development of Qualifications web site 2017; Agency of Strategic Initiatives web site 2017. In fact, new qualifications system has been formed, vocational standards are becoming more and more reliable basis for developing the content of vocational education and training.

2 Main cornerstones of VET system development in Russian Federation

2.1 VET policy legal framework and involved institutions of Dual VET

Since 2008 we can talk about the implementation of the practice-oriented model into Russian VET, aimed at bringing the spheres of labor and education closer to each other after difficult 90-s period. Interaction between theory and practice, interdisciplinary, integrated approach, emphasis on the skills and knowledge application in professional activities - these are the main principles of the competence-based approach as basis of the federal state educational standards of vocational education in Russia. Close interaction of VET educational organizations (colleges) with the employer was needed for their success implementation.

The term "dual training" is often used in various Russian publications of the last five years. It is no secret that the impulse to popularize this term was set by large Russian enterprises (for example, Chelpipe Group of Companies) and Russian companies with German participation (for example, Volkswagen Group Rus), they took responsibility for training young people together with colleges.

From 2013 to the present, much has been done by the efforts of the Ministry of Education and Science of Russia (now the Ministry of Education), the Ministry of Labor and Social Defense of Russia, ASI, NARK, FIRO, the Union of Young Professionals (Worldskills Russia).

The order of the Government of the Russian Federation of March 3, 2015 No. 349-p identified areas that should be developed in Russia during 2015–2020 (The order of the Government of the Russian Federation 2015).

- introduction of the practice-oriented (dual) training model in VET;
- improving the young people career guidance in secondary and vocational education, taking into account the combination of theoretical training with practical training at the enterprise;

- amendments to the Tax Code of the Russian Federation regarding the motivation of enterprises to participate in the practice-oriented (dual) model of training;
- development of proposals for improving the employers participation in the college's supervisory boards.

Several steps contributed to the consistent implementation of the practice-oriented (dual) model of training in VET. Since 2016 till nowadays all federal state educational standards of VET were updated. They take into account the requirements of vocational standards. Demonstration exam is introduced as part of the state final certification (assessment).

In recent years, there has been a significant positive trend in the development of young people career guidance with the participation of regional ministries, employment services, VET schools and enterprises. Special programs for schoolchildren are organized in the framework of the regional and national WorldSkills Russia championships. New direction of the WorldSkills movement has been developed - Junior Skills. The media has increased the number of publications related to the popularization of working professions.

The concept of professional self-determination in the context of continuity of education was developed and implemented in Russian regions. The second document, "Strategy of Development for the System of Supporting Professional Self-Determination of Students in 2015–2020" (FIRO, Russian Academy of Education, Moscow State University 2015) specifies the provisions of the first document in the system of priorities, directions and tasks.

The project, which has been actively supported at the governmental and ministerial level since 2018 - "Ticket to the Future" - is dedicated to career guidance for schoolchildren of 6 - 11 grades (Worldskills Russia 2019). It is developing now.

There is a system for involving young people in entrepreneurial activities under the "You are an entrepreneur" program in the Russian Federation (Novosibirsk Youth Initiatives Support Agency 2010). The Ministry of Economic Development of the Russian Federation together with Russian regions (territories) supports initiatives to create entrepreneurship training centers based on VET educational organizations. Work with start-up projects and methodological support for teachers is carried out in these centers.

One of the key events was the introduction of changes in the tax legislation of the Russian Federation aimed at motivating enterprises to participate in the practice-oriented (dual) model of training.

Law "On Amendments to Article 264 of Part Two of the Tax Code of the Russian Federation in order to motivate enterprises to participate in the training of highly skilled workers" was adopted by the State Duma of the Russian Federation and then signed by the President of the Russian Federation. Changes entered into force in January 2018 (The State Duma of the Russian Federation 2015). The most important direction, which has been developing in Russia since 2016, is the system of independent assessment of qualifications. The legal and organizational basis is defined by the Federal Law of July 3, 2016 No. 238-Φ3 (The State

Duma of the Russian Federation 2016). The coordinator of the system is the National Council under the President of the Russian Federation on professional qualifications. Sectoral boards on professional qualifications are responsible for the organization of the independent assessment procedures.

2.2 Projects by Agency of Strategic Initiatives (ASI) and AHK in cooperation with BIBB and FIRO

In 2013–2016 Agency of Strategic Initiatives (ASI) together with Ministry of Education and Science of the Russian Federation (now the Ministry of Education), Ministry of Economic Development of the Russian Federation, Ministry of Labor and Social Protection of the Russian Federation, Ministry of Industry and Trade of the Russian Federation with methodological support from the Federal Institute of Education Development - implemented systematic project entitled “Dual Professional Training Programme for High Technology Industries” (Agency of Strategic Initiatives 2013-16).

The goal of the project was perfection of the training system by taking into account the real needs of the economy and skilled workforce, for the purpose of potential investment growth within the Russian regions.

Among participants there were 105 educational organizations (colleges) testing the model of dual education, more than one thousand enterprises. About 21 thousand students were trained in the project. Over 5.5 thousand instructors were assigned to students at the enterprises.

One of the most important conclusions of the project was the definition of the dual training concept. In a narrow sense, dual training is an organizational form for the educational process, which implies theoretical education in college and practical training in the enterprise. But this alone is not enough. The effectiveness of VET is supported by the interaction of systems: education, professional self-determination, independent assessment of qualifications, training and advanced training of teachers and instructors. Each system affects the development of the other and one without the other cannot exist, it simply does not make sense.

In pilot Russian regions collective project management bodies were created, legal and regulatory documents for its implementation were developed, and qualification requirements for graduates and curricula were created with the participation of employers. The equipment base in colleges was upgraded, the training of pedagogical staff (including instructors) was carried out, and the student selection for dual training groups was executed.

The final results of the project’s implementation showed that implementation of dual system needs public-private partnership between governmental bodies in the Russian regions, employers, and colleges. We need systematic changes, which would build a practice-oriented system of VET including career guidance and assessment of qualifications.

According to the agreements reached at the 10th meeting of the Russian-German working group on vocational education (June 2016, Munich), there was an assessment of dual education implementation efficiency in Russia in the autumn of 2016. The assessment criteria were developed by Russian and German experts jointly. The assessment goal was to consolidate the best international experiences, to outline further work and development prospects, and to enhance achieved results.

Experts made SWOT-analysis on the base of the answers authorities (on federal and regional level), representatives of ASI, FIRO, enterprises, colleges and students involved to the project.

Table 1: **SWOT Analysis on Russian Dual TVET system**

<p style="text-align: center;"><i>Strengths</i></p> <ul style="list-style-type: none"> - good career prospects including employment - high qualification of the graduates - high qualification of employees - household benefits package and social advantages for students during the training period - short adaptation period for newcomers in the work-place 	<p style="text-align: center;"><i>Weaknesses</i></p> <ul style="list-style-type: none"> - enterprises' difficulties forecasting workforce demand - higher training expenses - call for change to the legal framework in the Russian regions - mandatory military service straight after graduation
<p style="text-align: center;"><i>Threats</i></p> <ul style="list-style-type: none"> - federal administrative resources - regional administrative resources - economic recession in the RF - lack of federal/regional financial assistance for the port project launch - lack of skills deficit at an enterprise - narrow graduate's qualification (lack possibility for continuing education, higher education) 	<p style="text-align: center;"><i>Opportunities</i></p> <ul style="list-style-type: none"> - federal administrative resources - tax preferences for employers - federal financial assistance for the project launch - regional/federal methodological and regulatory support - public promotion of dual education

Threats and opportunities are mostly the same because it's very important to reach consensus at the regional level for effective cooperation of the different stakeholders.

Taking into account the results of the project Regional standard for personnel support for industrial growth was developed (Agency of Strategic Initiatives 2017-18). This project is currently being implemented in all regions of Russia. According to the standard regional management system should be a cross-cutting process that requires cooperation of regional authorities in development of the regional system of personal training.

Among the most active regions are the Tambov Region, the Khabarovsk Territory, the Chelyabinsk Region, the Samara Region, the Belgorod Region, the Tyumen Region, the Republic of Tatarstan, and the Novosibirsk Region. They present their practices, provide advice to other regions.

It should be noted that large enterprises are more involved in ASI projects. Since 2013, with the support of the Russian-German working group on vocational education in Russia, the VETnet project has been launched and is still being implemented.

In October 2013 the German Federal Ministry of Education and Science (BMBF), together with the German Union of Commerce and Foreign Trade Chambers (DIHK), launched the VETnet project (Vocational Educational Training) in 11 countries in the framework of the new strategic concept “Export vocational education”: China, Brazil, India, Italy, Spain, Portugal, Greece, Latvia, Slovakia, Thailand and Russia. The goal of the project is the introduction of elements and structures of dual vocational training in accordance with the German system of standards that correspond to the needs of small and medium-sized businesses.

From 2013 till nowadays, the Russian-German Chamber of Commerce (AHK) is assisting its member companies in the process of creating, preparing and implementing dual vocational education.

AHK launched five pilot projects in the following specialties: mechatronics, contact center operator, butcher, cook, pastry baker in four regions of Russia together with partner companies BauTex, Hyperglobus, Zelgros, Arvato Rus in September 2014.

Currently (2019), the project is successfully implemented in seven regions on the basis of eight enterprises. Business representatives such as KLAAS, Enders, IHD Group, IKEA joined the dual education program. Students study in the following occupations: industrial mechanic, metalworking specialist, warehouse logistics specialist, retail specialist, hotel business specialist.

AHK established the Commission for Vocational Education in 2014. The purpose of Commission is solving issues in the field of vocational education. Experts from ASI, NARK, FIRO are invited to attend the committee’s meetings as guests.

A lot of important topics were in the special focus of the project, among the most interesting ones - training of instructors (trainers) and conducting the procedure of final certification on the principles of independence and objectivity.

AHK organizes training seminars “Train-the-Trainer”, based on the concept of ADA International (International Training Standards for Trainers).

2.3 Status Quo of Dual VET at present. What has improved and what is further vision?

Questions about what to consider dual education in Russia, how the dual form of education fits into the concept of “practice-oriented vocational education”, what are the tools for introducing a practice-oriented (including dual) training model in the Russian VET system does not leave the agenda of the day.

Again and again we emphasize that German dual system can't be repeated by any country in the world, despite of the enormous interest to it. Each country needed to develop its own ways of adapting the unique German experience.

The secret of success is in building of interaction system between labor sphere and vocational education with the participation of various structures, organizations, ministries and departments that share functions for ensuring the operation of the system: forecasting, training planning; system of career guidance; training system for teachers and instructors; regional methodological service, including on the development of the national qualifications system (application of vocational standards, professional and public accreditation of educational programs, independent assessment of qualifications); regional regulatory framework for the interaction of VET schools and enterprises (Esenina & Kress 2015; Blinov, Golovina, & Esenina 2016).

Experience of Belgorod, Tambov, Yaroslavl, Kaluga, Novosibirsk regions, Perm Krai, the Republic of Tatarstan and others is well known. Every year new regions or educational organizations, companies and enterprises are added to them. The description of these practices can be found on websites created by ASI, NARK, FIRO RANEPА:

- Agency of Strategic Initiatives website (2017)
- NARK Base Center, website (2017)
- NARK Base Center Media Library (2017)
- FIRO RANEPА, website (2019)

Practice-oriented (dual) model is an alternative to basic vocational education “inside” the college. The concept of "public-private partnership" replaces the concept of "social partnership" in the training of personnel for high-tech industries. The meaning of this change is in building economically mutually beneficial relations between educational organizations and employers' organizations on the basis of equal partnership (Blinov & Esenina 2015).

In recent years, Russia has made a significant step forward in the development of vocational education and training, but there are still many unsolved problems. The concept of “dual training” is not fixed by law in Russia. The status of instructor (trainer) and the requirements for his work are not defined. These issues are in the field of responsibility of human resources departments in the enterprises. But involving employers to training cannot be solved only at the level of organizations. The systematic federal approach is needed, which will allow separating the functions of the educational organization and employers in the educational process and areas of responsibility for the result.

Meeting of the Expert Council on vocational education and training was held at the Committee on Education and Science of the State Duma of the Russian Federation at 28 February 2019. Two main issues were discussed at the meeting: amendments to the Federal Law “On Education in the Russian Federation” in terms of improving the practical training of students and conducting final (state) certification of VET graduates using procedures of independent assessment of qualifications. Participants of the meeting emphasize the need to

formalize and consolidate in the legal field the role of instructors (trainers) at the enterprises, the risks of conducting practical training exclusively in laboratories without real working conditions.

3 Conclusion and recommendation

The Russian Federation and the Federal Republic of Germany have long tradition of cooperation. Joint Russian-German programs exist since 1960. New historical period of cooperation begins in the 21st century.

We note with satisfaction the accumulated experience of intensive cooperation between Russia and Germany in the field of vocational education and training, which since 2010 has been conducted by our countries within the framework of the Russian-German working group on VET. This cooperation contributed to the establishment of mutual understanding in the field of VET, supporting social and economic development in both countries.

There is no doubt that in the perspective of cooperation between Russia and Germany in the field of vocational education there are areas related to the VET digitalization, independent assessment of qualifications, career guidance and professional self-determination; design and implementation of practice-oriented VET programs. Student and teacher's exchange, the exchange of young scientists and the development of joint applied research should be developed.

The organization of internships for studying the German dual system, the experience of the chambers of commerce, of the German Federal Institute of Vocational Education, development of profession's regulations and curricula, advanced training system for teachers and instructors, organization of qualification assessment procedures are directions of our joint activities over the past years.

This activity made it possible to draw important conclusions about the features of the dual system and alternatives to it. Dual system is only part of German VET system. This system provides training, as a rule, for large companies that are able to predict the need for personnel and provide training conditions. Small and medium enterprises have the opportunity to train small number of students (2–3 per year).

An alternative to the dual system is the system of education in technical schools. As a rule, educational programs in such schools are focused on the development of student's research competencies through applied projects. Graduates can continue their studies in universities or take the position of middle-level specialists.

There is a network of regional (land) management model of VET schools: the decision on specialization (set of programs implemented in VET school) is made by the founder at the regional level based on the need for personnel of certain qualifications (professions) in the region; VET schools participating in the dual system work according to the principle of educational and industrial complexes: one third of the students are simultaneously in the

educational organization; these schools are state-owned and financed by the state, but this is only the theoretical part of training (as a rule, a quarter of school time) (Esenina & Kress 2015).

These findings give reason to talk about the importance of further interaction and think over the possibilities of applying the German experience in VET.

It is necessary to move from projects focused on the development of infrastructure and material and technical base at the expense of the federal budget to the introduction of methodological solutions aimed at qualitative, meaningful changes in the system of vocational education and training. One of the most important fields of activity is the increasing of practical training part in VET programs, the possibility of different volume of practice depending on the specifics of the profession, the development of flexible training programs.

The transition to a new professions list as open source software is needed. It is necessary to review approaches to classification and standardization:

- separation of the concepts “qualification by education” and “professional qualification”
- one qualification by education should serve as the basis for the development of several professional qualifications.

These questions are closely related to the other - changes in management system on the level of VET organizations and regional level.

Vocational education without active involvement of employers in the educational process cannot be effective.

Modern Russian VET organizations work in a multitasking environment; their effectiveness is connected with the economic development of the subject of the Russian Federation on which territory they are located; specific settlements (cities or small town, village); special profiles of activity (medicine, cooking, hairdressing, technics and engineering, chemistry, woodworking, shipbuilding, aircraft industry, railway, etc.).

A regional coordinator is needed for the effective interaction of VET organizations with small and medium-sized businesses providing information, organizational and methodological support to the interacting parties.

One of the solutions is the development of territorial-industry cluster networks; the formation in the regions of the Russian Federation a diversified approach to monitoring the quality of vocational education in accordance with the goals of VET organizations.

The most important management principle is the separation of functions between VET organizations and other participants (federal bodies, regional authorities, employers and their associations, trade unions, etc.) (Blinov & Esenina 2015).

The problem of attracting employers to the management of VET organization cannot be solved only at the level of the organizations' interacting. A systematic government approach is needed.

However, the construction of such a management system is significantly complicated by the lack of consolidated management and scientific-methodological position at the federal level. The issues of building regional VET systems are handled by several organizations that do not cooperate enough and often compete.

We are making effort to consolidate the work of experts from ASI, NARK, WorldSkills Russia, Skolkovo School of Management, FIRO RANEPa and others to ensure the quality of Russian VET system. To a certain extent, this task is facilitated by the Russian-German working group on vocational education, offering the common platform for meetings and discussions, while also in an international context.

References

Administration of President of the Russian Federation Service (2013). Protocol of the Joint meeting of the State Council and the Commission for monitoring the achievement of target indicators of socio-economic development, 23.12.2013 Online: <http://www.kremlin.ru/events/president/news/19882> (retrieved 23.6.2019).

Agency of Strategic Initiatives (2013-16). Systematic ASI project Dual Professional Training Programme for High Technology Industries. Online: <https://asi.ru/staffing/dualeducation/> (retrieved 23.6.2019).

Agency of Strategic Initiatives (2017-18). Regional standard for personnel support for industrial growth was developed. Online: https://asi.ru/staffing/standard/RS_9.pdf (retrieved 24.7.2019).

Agency of Strategic Initiatives web site (2017). The base of effective practices for the implementation of the Regional Standard for Industrial Growth. Online: <http://www.wikiregstandard.ru/> (retrieved 23.6.2019).

ASI, Ministry of Education and Science of the Russian Federation, & FIRO (2016). Methodological Guide on the Dual Training Model for Highly-Qualified Workers. Moscow Online: https://asi.ru/staffing/dualeducation/docs/Metod_Recommendation_2.0.pdf (retrieved 23.6.2019).

Base Canter of the National Agency for Development of Qualifications web site (2017). Best practices of the personnel and mid-level specialists training. Online: https://bc-nark.ru/best_practice/ (retrieved 23.6.2019).

Blinov, V. & Esenina, E. (2015). Development of secondary vocational education: scenario and forecasts. In: Professional education. Capital, 3, 5-8.

Blinov, V., Golovina, T., & Esenina, E. (2016). Possibilities of Introducing in VET of practice-oriented (including dual) model. Moscow: STANKIN.

Esenina, E. & Kress, H. (2015). Old woman in modern international dress (German Dual VET System in Germany and in the World). In: Education and Science, 8, 20-34.

FIRO RANEPА (2019). Online: <http://firo.ranepa.ru/nauka/nauchnye-tsentry/tsentr-professionalnogo-obrazovaniya-i-sistem-kvalifikatsij> (retrieved 23.6.2019).

FIRO, Russian Academy of Education, Moscow State University (2015). Strategy of Development for the System of Supporting Professional Self-Determination of Students in 2015–2020. Moscow: Pero.

Government of the Russian Federation (2015). A set of measures to improve the vocational education system for the period up to 2020 - The order of the Government of the Russian Federation of March 3, 2015 No. 349-p. Online: <http://static.government.ru/media/files/cWukCnDBv5U.pdf> (retrieved 23.6.2019).

NARK Base Center Media Library (2017). Best Practices for Worker's Training: From Career Guidance to Employment. Online: https://bc-nark.ru/media_library/biblioteka/luchshie-praktiki-podgotovki-rabochikh-kadrov-ot-proforientatsii-do-rudoustroystva.php (retrieved 23.6.2019).

NARK Base Center (2017). Online: https://bc-nark.ru/best_practice/database/ (retrieved 23.6.2019).

Novosibirsk Youth Initiatives Support Agency (2010). Federal program - You are an entrepreneur. Online: <http://xn--80aqlffcr.xn--p1ai/> (retrieved 23.6.2019).

The State Duma of the Russian Federation (2015). Federal Law of the Russian Federation On Amendments to Article 264 of Part Two of the Tax Code of the Russian Federation in order to motivate enterprises to participate in the training of highly skilled workers № 169 -Ф3. Online: http://www.consultant.ru/document/cons_doc_LAW_220279/ (retrieved 23.6.2019).

The State Duma of the Russian Federation (2016). Federal Law of the Russian Federation On Independent Assessment of Qualifications No. 238-Ф3. Online: http://www.consultant.ru/document/cons_doc_LAW_200485/ (retrieved 23.6.2019).

Worldskills Russia (2019). Federal project Ticket to the Future. Online: <https://bilet.worldskills.ru/> (retrieved 23.6.2019).

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