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**NEW SCENARIOS OF QUALIFIED WORKERS PREPARATION
IN THE SYSTEM OF RUSSIAN PROFESSIONAL EDUCATION
(REFLECTIONS OF A SOCIOLOGIST)***

SUMMARY. The situation which has developed with preparation of qualified workers in recent years is analyzed. Findings are shown in innovative development of establishments of professional education, possibility of new organizational forms of preparation of personnel: regional center of professional education (RCPE), corporate structures of the enterprises, applied bachelor's degree, new workmanship.

KEY WORDS. Labor and qualifications market, systems of professional education, qualified workers, regional demand / order, Regional Resource Center, applied bachelor's degree, new craftsmanship.

Numerous sociological studies show that among society's social groups that still preserve a positive attitude towards reforms made in Russia, young educated citizens are foremost. To achieve a high level and continue professional education are one of the main demands in this group, because education and acquiring new skills are highly valued and become leading aspects in everyday life. A considerable proportion of such young citizens is found in institutions of professional education, that cooperate with the elite among Russian intellectuals. This bond shows the place, the role of intellectuals and young people in the process of modernization. When there is no modern advanced professional education, there is no innovative updating of the country.

To update organizational, methodic approaches and mechanisms at all levels of the system of professional education one must guarantee its correspondence to prospective tendencies of innovative development, the demands of the society. It is also vital, because to get a high quality education remains one of the most important life issues of young people, a decisive factor in the politics of social justice and political stability. A high quality education remains the main and socially approved «social lift».

In circumstances of continuing debate concerning the state of the national system of education, especially the quality of preparation in professional schools,

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it should be first noted that there can hardly be found an example of a society fully satisfied with the state of its professional education, be that society the most advanced in the world. The more developed the country and its system of education is, the more there is criticism and suggestions to modernize and reform it. Such social dissatisfaction shows at the level of social regularity in the development of modern society.

In theories of contemporary modernization of professional education at all levels of state power and civil society it is declared that Russia intends to enter the world's educational field. The system of education is one of the main factors to keep Russia's place among the advanced countries. But when we set an aim to renovate this system, the strength of this system should not be overseen: it must be the foundation of the process of innovative updating. Because, even if we consider the European experience with the Bacca-laureate in applied branches of science, it is acceptable to refer it to the national programs of the advanced level of secondary professional education, that can be transformed into programs of bacca-laureate in the applied technical spheres at Russian colleges and institutes of higher education quite easily, without any reserve.

Professional education models the social and economic dynamics of the country directly and actively. It guarantees, initiates or on the contrary slows down processes of innovative development. In many cases even new professions needed in modern industry are firstly born, formed at advanced institutes of professional education.

Of course, regardless of all the modernization euphoria, it is necessary to see another side of this process. Traditionally in many educational institutions the preparation of specialists in obsolescent professions and specialties is retained automatically for years without concern for the real demands in economical and social spheres. Considerable facilities are created, teaching teams have been built, that follow only their own corporate interests.

To solve many problems in the system of professional education, one should reflect the actual economic and social demands in tenure, teaching different levels of professional education. Nevertheless, we have not had this reflection, especially during the economic crisis. Moreover, all lances are broken with the debates about scales, proportions and quality of preparation. Heads of professional education institutions of all levels have to constantly self-approve before the organs of state power, mass media and society.

Generally it is hard to analyze the situation in Russia exactly because of the lack of statistical data and well-measured prognoses. But there is an opportunity to study the balance of offer and demand at the labor market and qualifications in separate cities and regions and evaluate all the Russian economy through the prism of these results. There will not be a significant error. But for this, one should look at the history of the preparation of qualified specialists in Russia over recent decades.

In the 1990s after the beginning of market reforms in circumstances of economic collapse, many qualified graduates of professional institutions could not find a job. Some of the institutes were closed, the rest changed their educational program from the traditional 2-3 years of study in industrial professions into a simplified structure intended for the sphere of trade, service and even banking. In general professional education, especially at the elementary level, became a scarecrow in the eyes

of young people, it was in a way discredited and lost its former prestige. Many institutes were retained mechanically owing to the social policy of the state: it was necessary to keep young people busy and restrain growing unemployment. Under conditions of a spontaneously growing market of educational service, professional and technical institutes essentially turned into institutes of social security for the poor, because education and food there were for free.

During the economic upturn at the beginning of the twentieth century and the mass demand for qualified specialists, the professional institutions could not prepare them: teachers left as well as masters of industrial training, facilities grew old, educational institutes and workshops were repurposed, even rented out as shopping centers. As the result there arose a significant deficit in qualified workers, that reached its peak in approximately 2007. Nowadays the lack of qualified specialists is still the main problem of the Russian economy.

In the 1990s the structure of education was seriously damaged in the transition to a market economy: people had to survive in conditions of economic contraction, sudden cuts in budget financing. The modern economy needs welders, fitters, turners, masons, when cooks, hairdressers, designers, mechanics are prepared as staff in relatively low-cost and fashionable professions. People and small enterprises' interests played an important role here, because these professions gave the opportunity to start one's own business with a relatively small initial investment, unlike professions of large-scale industrial labor.

Besides, as a rule, the requirements of modern employers exceed the opportunities of professional education, in terms of standards and curricula. For example, an employer needs 92% workers with secondary education, graduating from institutions with a primary level of professional education, 95% with level 4-6 and only 5% with level 3. The primary professional education that prepares 75% of workers with level 3 is a demand dead-end, according to the RAE Academician E. Tkachenko [1; 1-10].

Nowadays modernization of Russian professional education at its lowest level is slowed down by a number of unresolved issues, the most significant of which are:

- absence of a justified state prognosis for personnel demand that guarantees the social and economic development of Russia, and, correspondingly, uncertainty of personnel preparation structure;
- instability of the position of professional education institutions, formed on the basis of sectoral needs of the planned economy and often targeted at specific activities of large enterprises, that are now not only in decline, but are also privatized, deconstructed, so to say, to the very foundation;
- destruction of stable relations with production, aging of teaching and laboratory facilities, difficulties in the selection of bases for on-the-job training of students, demands of private commercial structures concerning fees for apprenticeship and internship;
- lack of recruitment of teaching staff with experience in modern industry's professional field. The country has changed its whole socioeconomic system, political structure, type of economy, and institutions of professional education often work, as if nothing has happened.

Of course, like the rest of the system of education, they should be equipped with enough healthy conservatism, not go to extremes, as a popular phrase has it: «not bend», but not to the point of being sluggish, inflexible, unable to react

adequately to the changing socioeconomic conditions, new mechanisms of financing and management. Back in the late 1980s professional schools of higher education (PSHE) were created as educational institutions on the basis of advanced vocational schools, to provide an increased level of preparation of qualified workers and specialists of intermediate level for high-tech and knowledge-intensive production. These schools were vocational training centers, well-equipped with facilities and technologies, with multiple grades, and they were allowed to attract manufacturers and high school teachers, working for extra-payment. The number of interrelated levels was determined by the level and profile of the institution, but each of them had its own professional accomplishment.

In short, the trend of transition to secondary professional education broke through in different places and in the most unexpected forms. It is justified by the fact that the knowledge economy has almost no place for elementary professional education. That is why the conceptual framework of project developers of the new Federal Law «On Education in the Russian Federation», which proposed to develop secondary professional education for qualified workers and specialists of average level, is so reasonable and logical. Qualified specialists' preparation can be conducted at secondary professional education institutions as well as at special vocational training centers. Again, one of the basic principles of the organizational structure of secondary professional education institutions is their versatility. Of course, there remain quite difficult questions that will have to be resolved in one way or another.

We should not forget about the special place of elementary professional education: firstly, it serves as a youth training program for common workers' jobs in economic and social spheres, in addition the significance of its graduates in various professions, when they take up military service, is hard to overestimate; and secondly, in some cases, it has important functions of social protection for adolescents with poor social background and families, the number of which has grown during the transformations of Russian society. Young people admitted on the basis of partial secondary school education continued not only professional training, but also the program of full secondary education. In the institutions for this type, teenagers, coming through a crucial period in their lives, found themselves in developing and educational structures organized, perhaps, not in the most ideal way.

With the reorganization of elementary professional education, as it was conceived in the new Law «On Education in the Russian Federation», it is necessary to look for a replacement for this system, because tens of thousands of teenagers who could not be handled in a regular school, will not disappear. It is known that secondary school from grade 1 to 11 loses 4.7 million children and adolescents «on the way» [2; 9].

Special schools may need to be created as well as programs of professional training with military and applied focus. It would be hard to entertain these adolescents with anything else. They should be prepared for contract service in the Armed Forces, units of MOE and other uniformed training programs, say, staff taking care of fish, forest and water security. Many of these young people often have a strong character, are apt to leadership, ambition, and with a skillful pedagogical impact they can grow into real men. Mommies' darlings, closely patronized by their parents, certainly, can not be found among them.

The experience accumulated in the sphere of professional education in the form of a multi-level college, which combines two levels of professional education

and produces mid-level graduates, that are skillful in two or three working professions, has convincingly proved the viability of such a model, and it is widely used in many regions of the country.

However, the collapse of the USSR and the change of the political system stopped these processes. Education reform has been postponed. More important issues came to the fore, it seemed. The non-state public sector of the economy formed quickly, a new type of employers and managers, whose interests were very different from the interests of their predecessors, came to management. The «Captains» of the new economy were clearly guided by the following principle: «where there is profit — it is ours, mine, personal, and where there are costs — that is for the care of the state budget».

However, as early as 1995 leaders of the vocational training institutions again returned to the idea of higher professional schools, organizing the movement for schools of an advanced type — lyceums — in the system of elementary professional training in Russia. In a short time more than 800 of these were founded. They integrated professional education on the basis of paired training plans and programs, including the reduction of academic terms in single-profile multi-level training. It was a look and a step into the future of vocational education and the emerging labor market and qualifications. It is exactly the labor market and qualifications, and not just the labor market, as it is common to write and say. Too often, in the labor market, there are people looking for work, but their qualifications do not allow high-tech enterprises to fill their vacancies.

However, these processes, determining the prospects of qualified workers and specialists' preparation, were stopped at the end of the 1990s. Contradictions grew between the demands of the new employer and the possibilities of multi-level professional education, technical and material infrastructure and the tenure of elementary and secondary professional education deteriorated. Attempts and proposals to preserve the quality of training for workers and specialists, taken in the mid 1990s, were not heard. We may recall here, for example, a famous specialist in professional education, the corresponding member of the RAE I.P. Smirnov's article «A Nation at Risk ...» [3], the failed attempts to make amendments in the Law «On Education in the Russian Federation» to the thesis «on licensing, certification and accreditation of professional education institutions by levels of education» concerning training programs.

In the last decade professional education is groping for new approaches slowly, through trial and error. Its current development and modernization are based on two main vectors: first, the integration of multi-level content of professional education and, secondly, restructuring of professional education institutions. The modernization progress of recent times goes almost everywhere within these vectors. In conditions of market economy, of a quick change in dynamically developing conditions of the labor market and qualifications, the task of training personnel cannot be principally undertaken outside the sphere of the real economy. The participation of employers provides conditions for future workers to acquire production technologies at their workplace, directs them to the real ways of organizing professional work, allows to schedule their production career. Such experience, even with the organization of training workshops, cannot be obtained within the walls of the school. Among other things, reducing the time for adaptation of young recruits means an increase

in productivity, staff mobility and competitiveness for the employer, and, to cap it all, profitability of the company [4; 3-13]. One has to think also about the status of a young specialist, including his/her rights.

For a start, some preferences for commercial structures, establishing the status and rights of young workers at the corporate level, are possible. Indeed, in this case, business structures work for the national interests of the country. We must admit that at present there is no complete system for the mass training of qualified workers in Russia. In large business this problem is solved by cherishing or signing specific vocational agreements with the necessary institutions. For the rest of the economy personnel training is a «weak» spot.

Among other things, the problem lies in some issues of methodological plan. The country lacks a modern system of qualifications in working professions. In Russia, the Soviet system is still used, which includes seven thousand worker occupations. In developed countries, there are no more than 600-700. Now we are working on bringing unified qualification rate cards into a modern form, which will be completed in the very near future.

In modern conditions, to reorient vocational education towards the needs of promising industries, it is necessary in the first place to create regional industry forecasts concerning staffing resource requirements, i.e. we need a clear order: how many specialists, of what level, what qualification are required across the region. The State Council of the Russian Federation, which discussed this problem, proposed that in the regions where there are no large companies, pools of medium entrepreneurs, interested in the preparation of certain specialists, should be recruited. These pools could take up co-financing the education network [5].

In conditions of a severe shortage of qualified workers it is even more important to move as soon as possible to full funding of professional education at the expense of the regional budget in the form of regional government order. In this case the volume and structure of government order are formed fully in accordance with the needs of the regional labor market and demographics prognosis. In this case vocational education institutions will have an accurate and fully funded order for training personnel, while enterprises and organizations in the region will have a strong belief that they will be provided with young recruits. Only in this case the solution to many disparities and problems that have accumulated in this area may be found.

In the Tyumen Region, for example, on the basis of a long-term program of development of vocational education a system of training workers and specialists in the form of a state order has been introduced. This regional government order is annually based on a comprehensive analysis of the needs of the regional labor market and qualifications. This allows (no order — no financing, respectively) to reduce training in professions that are not needed, and open new areas of training workers and professionals with regard to investment projects.

A prospective challenge, that opens new opportunities to improve the system of training qualified workers, mid-level specialists, is the activity of resource centers of professional education (RCPE), implemented on the basis of the cluster approach.

In the region there is the concept of formation of such centers for the training of qualified personnel in the system of vocational education proposed and successfully

implemented. The strategy of formation and development of RCPE is focused not only on current, but also on long-term goals of high-tech industries, research and industrial labor. Currently there are five regional centers operating in the region for training personnel for river and rail transport, agriculture. In RCPE there are new and improved laboratories and workshops of industrial training, the educational process is fully equipped with computers and software. The centers have qualified engineers and teachers. Based on market research, employers' applications and requirements for the competence of employees, the set of occupations and professions is constantly updated.

In RCPE social partnership is well developed, international links are established rather successfully. On the basis of the «Agrolitsey 329» a resource center for NGOs operates the Vocational Training Centre, established in the framework of cooperation between the Government of the Tyumen Region and the state of Lower Saxony. The Resource Center is successfully engaged in staff development for the agricultural industry, internships, workshops on new production technologies and equipment.

Experience of creating RCPE in various regions of Russia shows that at present there is still no single approach to evaluation of the risks of such innovation, the optimal model of industrial resource centers of the cluster type has not been worked out. They are created either as subdivisions of professional education institutions, or the institutions themselves are endowed with the status of a resource center without changing the organizational and management structure and legal form. This approach often does not lead to the union of several educational institutions, but to their accumulation in one educational institution, i.e. in this scenario it is not a union, but an addition with all its consequences. Such a resource center primarily serves the needs of the institution only on the basis of which it was created, which limits its functions in relation to other institutions and does not solve the issue of creating a modern laboratory base, does not eliminate the overlap in personnel training, does not concentrate highly qualified teachers, teaching foremen and managers in the industry resource center.

In common opinion there has not developed an understanding of the differences between the segments of education and levels of skill, which were reflected in the absorption of primary vocational education by vocational education, and of vocational training institutions and ACT by universities. In fact, we should address the right of educational institutions to implement programs, assigning qualifications of different levels, if they have the necessary resources and personnel. Multilevel multipurpose colleges may as well carry out programs of professional education at various levels — up to the applied baccalaureate programs, continuing professional education.

In the labor market of the Tyumen Region there appear to be job seekers with the training qualification of a programmer, mechanic, etc. It only proves that the modern dynamics of the socio-economic development, the ups and downs of production, are difficult to predict, it is even harder to predict demand in workers and specialists over 3-5 years, manage the distribution of young recruits for various types of vocational schools.

In modern conditions one cannot do without increasing the prestige of working professions, the social status of skilled manual labor. And it is not a shame to adopt some of the approaches that were established in the Soviet era. Mentoring,

professional skills contests, constant attention to people of working trades and mass media, masters of art and culture were highly valued. Now it is quite the opposite, concerning the working class: we need you, we cannot develop our economy without you, «make money», but to us you are people of a low sort, citizens who cannot get a good place in life, have no business skills.

Sometimes it seems that the new «masters of life» take revenge on the working class (and it is here to stay — despite the newfangled concept of stratified structures of the Russian society) for long-term statements about the dictatorship of the working class, who were little more than a fig leaf to hide the power of the class range behind them. The new «masters» do not know what they are doing: cutting the branch on which rests all their contemporary and future prosperity.

Here is how the problem of shortage of qualified welders in the association «Sibkomplektmontazh» was solved: a decent salary of several thousand dollars, a full benefits package, respect and honor — and all vacancies were occupied. The problem will not be solved with low wages for qualified manual workers, with respect to them as people of low class, which idea exists in the public consciousness, in mass media, in government, no matter how many of these specialists may have been prepared in professional schools or colleges.

In the stable lack of young recruits a partial return of this level of training into some interested corporate structures is particularly important. This approach to the formation of the system of training of qualified workers formed in the joint stock company «Sibnefteprovod» — in particular, a corporate system of professional education, «Tyumen Oil-Pipeline Vocational Lyceum». The lyceum was organized on the basis of two structures of professional training — the Tyumen Training Center and a conventional professional school as a corporate structure of «Sibnefteprovod». The lyceum conducts educational activities in two ways. At the department of professional education it is to train highly qualified workers in the main oil pipeline professions, «mechanic of material handling and construction equipment», «mechanic in instrumentation and automation», «equipment repair and maintenance electrician», «technical engineer of pumps and compressors», «master of civil construction», «machine operator», «welder». Half of the annual admittance is due to targeted places by order of the company.

The current system of training, with experienced teachers and the most advanced equipment, allows graduates to quickly adapt to the production process, to demonstrate proficiency in their profession. This is evidenced by their successful participation in the annual competition of professional excellence «Best in Profession». So, in 2009 the best welder of «Sibnefteprovod» was Sergey Latyshev, who graduated from the lyceum in 2006, i.e. it took him only three years of experience to rise to the heights of professional excellence.

On the basis of this school additional training was organized: continuing education target-courses in five departments: production equipment, power equipment, welding and defects inspection, automated control systems, specialized equipment. Every year, more than seven thousand people are enrolled, and not only from the company, but also from sub-contractors. And there is no shortage in the most complicated trades in this organization, and it is not expected.

A variety of options related to the opening of their own schools in large corporate structures are offered. All such suggestions are based on the needs of specific

industries and have good prospects for further development of professional education in the region. Furthermore, we must very carefully examine and evaluate the experience of personnel training in economically successful countries. In many European countries at the end of the last century there began training programs in applied baccalaureates. In order to strengthen cooperation in the field of professional education and training (elementary and secondary professional education) in 2002, in Copenhagen during the forum of the European Council a declaration was adopted, which initiated the Bruges-Copenhagen process.

Priority areas of cooperation are: to ensure transparency of professional qualifications and competences, mutual recognition of qualifications and competences, as well as broader access to continuing professional education. During the implementation of the agreements reached in the EU a unified framework of qualifications was created and it successfully operates today as well as a system of transfer and accumulation of credits to ensure mobility between educational institutions, both within and among all European countries. Russia has not even officially joined the Bruges-Copenhagen process, although it could naturally complement the Bologna process, in which Russia participates actively.

Applied baccalaureate program allows students to quickly gain significant skills and acquire skills demanded by the labor market. An applied bachelor's degree is the ultimate qualification that allows direct access to the labor market. Applied baccalaureate programs are perfect for those who want to work immediately after receiving a bachelor's degree. One of the most notable features of the European program of applied baccalaureate is the method of its design, based on close cooperation between educational institutions, business and professional communities. Training programs are compiled jointly by educational institutions and representatives of the real economy, they are regularly reviewed and adapted in certain skills and abilities to the changing needs of the market [6; 247-266].

According to the abovementioned authors, programs of professional education existing in Russia are, in fact, analogous to the European applied baccalaureate programs. They have a practice-oriented nature and allow graduates to begin working immediately after graduation. However, the majority of Russian programs have poor connections with the labor market, and after graduation students have to find employment or access employment services. In addition, local training programs are different from European applied baccalaureate programs in the set of competencies that are being developed in the learning process. European applied baccalaureate programs, in addition to performance skills, provide tuition in leadership and management competencies. Applied baccalaureate graduates are highly qualified professionals who can not only follow the instructions and regulations, but also take the initiative in their own hands, come up with new ways to solve problems, to create something completely new.

The secondary professional education programs currently available in Russia can be divided into basic and advanced levels. Educational standards for basic and advanced levels of training involve education according to programs on the following activities: production-technological, organization and management, design and engineering, testing and experimentation. The difference is that the advanced level of secondary professional education is higher and offers graduates a wider range of skills, from practical ones to management.

Although programs for secondary professional education of higher level provide practical training, unlike the international experience of the applied baccalaureate, it is of extremely short duration — only four weeks, and then it is either received formally, or is not done at all. Students often do not have time even to understand their actual profession, get comfortable in the workplace, they do not have time to acquire professional competence, new skills and knowledge. In conditions of low interest from business-structures in training qualified specialists, mechanisms of interaction between educational institutions and employers and the employment of students before graduation are not regulated. D.Y. Chugunov, K.B. Vasilyev and other authors consider it necessary to increase the duration of practical training for the existing programs of professional education to 12-16 weeks [6; 262].

The applied baccalaureate should provide professional practice-oriented training. For this purpose, various types of practical training in the applied baccalaureate program represent no less than half of the curriculum, to develop the skills required for labor market and incorporated in professional standards. Employers implementing the program of applied baccalaureate in partnership with institutions of professional education are actually involved in the educational process, assist in the organization of training and work experience in the formation of a system of certification of professional qualifications of graduates, and send qualified personnel to conduct classes.

A new level of interaction of professional education and employers allows businesses to order specific training in the field of applied baccalaureate-specific production. Thus, the implementation of an applied baccalaureate can provide a close alliance of stakeholders in order to prepare highly qualified specialists for specific production, which is especially important considering today's rapidly changing industries and technologies.

Since the 2010/2011 school year in accordance with the Government of the Russian Federation [7; 19], a four-year experiment in an applied baccalaureate has been held on a competitive basis in seven universities and 23 institutions of secondary professional education. The aim of the experiment is to develop and introduce new types of professional educational programs, focused on the development of modern production technologies, new forms and methods of work organization, providing an educated workforce to meet the needs of innovative economic development.

However, at the beginning of the experiment a number of organizational, resource and methodological problems emerged. At the level of the Ministry of Education and Science such an important issue as the possibility of granting the bachelor's degree by the institutions of professional education is not regulated. It is determined that graduates who have studied in an institution of professional education according to programs of applied baccalaureate, will take their final state examination in high school. And there is no mechanism of interaction or legal framework, including the financial arrangements of the procedure. The problem of licensing requirements to applied baccalaureate programs and tenure has not been solved yet.

The integration of the educational programs of professional and higher education which takes place in our country, involves the creation of applied baccalaureate programs, through their adjustment and on the basis of the academic programs of the bachelor's degree. The implementation of applied baccalaureate programs in this case is possible in the framework of higher education, which actually means a transition of programs of professional education to the level of higher education,

and it only increases the prestige of this type of education. Most likely, Russia will go this way, on the one hand, converting some of the academic programs into applied baccalaureates in regional universities, focusing on the real needs of the regional economy, and, on the other hand, including the establishment of SPE institutions in the universities, where the system of continuing professional education will be constructed more logically.

This integration of higher and professional education programs in the markets of programs for the applied baccalaureate is possible and through network cooperation of universities and colleges, i.e. it is, in fact, the preparation of highly qualified «blue collar» workers with higher technical, construction, agricultural, etc. education. Perhaps this is a preferable variant of integrating secondary and higher professional education, in this case legal independence of educational institutions remains intact.

Most young people when they graduate from secondary school are focused on higher education. And this trend cannot be reversed: the return point has been passed. And the reverse should not be aspired for. We must look for some other solutions to the problem. One of them may be higher professional education in a technical, construction, agriculture applied baccalaureate. Similar processes occur in all developed countries — Japan, the US, Germany and others. There, a worker with higher education is no longer a rarity. Why should Russia, which set the bar high in innovative development, not be approved to use the experience of these countries in the current market economy?

Speaking about the training of the workforce, we still mean, first and foremost, the training of workers for a large-scale, industrial production stream. However, in the conditions of transition to a market economy, new tendencies of organization of work have appeared, which should be taken into account. As it was noted by I.A. Korobkov: «In the past decade, craft was reborn and was steadily growing — the production of goods and services due to individual and direct orders from the population, which are, as a rule, of an exclusive nature. This process occurs against a background of transition from a technocratic era with domination of large-scale industry production to the era of humanistic culture and intelligence at a time when the national economies of developed countries are beginning to shift from the mass production of standard products to highly specialized small forms of production and service, tailored to the specific needs of the people» [8; 101]. And the considered trend will only grow in the foreseeable future.

In the new conditions of social development qualified artisan work is largely executed, which allows to satisfy the growing number and diversity of the individual needs of the people. The organization of such production is possible only in the form of small enterprises that can fill in socio-economic niches that are formed as a result of the systemic change in our country.

It should be recalled that in the 17th-18th centuries in Russia industry began with crafts, went through various stages, increasing the productive capacity of the Siberian and Ural cities. These truly artisanal activities were carried out by high-class professionals in an ongoing competition. The most successful artisans were in full view of society, became big authorities, young people first came to their training schools. So the skills and valuable experience passed from one to another.

Analyzing the experience of the last few decades, we can say that there is a growing number of small and medium enterprises of a craft profile, especially in

traditional handicrafts, but a system of training for them has not been developed. In Russia, there is a paradoxical situation: personnel for small businesses such as handicrafts are still prepared in the system that was developed in the Soviet era, when craft not only lacked support, but was consciously and deliberately pushed out from the economic system as a relic of the past. Naturally, the existing legal framework of professional education in relation to craft is a Procrustean bed: it does not allow even those things that were developed in the course of experimental work.

A modern craftsman is an employee of a new type, not only professionally, economically, but also in legal terms, combining the qualities of a qualified worker and manager, able to design, provide resources to the labor process and perform work, constantly focusing on satisfying customers' demands.

At the beginning of this century in Yekaterinburg the first project was held, in which together with German partners new to Russia professional educational programmes for training craftsmen-entrepreneurs in such professions as «painter-designer», «cabinetmaker», «tiler-mozaist» were developed and successfully put into practice. More than 600 people were trained in these programs. Most employers with companies that employ such graduates noted the high quality of their training and a much better adaptation to the modern labor market, compared to graduates trained in traditional vocational programs.

In 2006 a second project was launched, in the process of which similar training programs developed for specialists in sanitary and ventilation works, in the construction of roofs, for painters, car-varnishers for service centers.

In the Tyumen Region in vocational school № 34 specialists, managing modern houses, stuffed with all sorts of electronic devices that automatically control the temperature, lighting and maintain security, are trained within the program «Smart House». This kind of personnel can implement, for example, energy conservation policy, which is so necessary in modern Russia.

In the Tyumen College of Transport, for example, children learn automatic welding, that allows to splice nonferrous metals. They learn how to drive cars or repair modern foreign cars virtually on computers. A training service center for the repair of imported equipment was opened there. And the director of the college, the honored teacher of the Russian Federation Alexander Kukin is not afraid to entrust his car to students as a manual to learn how to repair — that is remarkable!

In the Russian State University of Professional Education there was formed a scientific and methodological direction to consider professional craft education. Work in this area involves the teachers and staff of department of psychology, economics and management, sociology, law, linguistics. But so far all regulatory and educational materials only have regional recognition and approval. For further distribution of the promising experience of the personnel training it is necessary to approve these documents at the federal level.

In most regions of Russia the sector of craft enterprises is not distinguished in the group of small and medium-sized companies. At the federal level craft professions are also not on a separate list, as it is done in Western Europe. New approaches to the training of highly qualified workers for the modern economy are emerging in the process of modernization of Russian professional education, which, of course, needs thorough understanding through the prism of sociology.

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