Abstract—The article deals with the modern problems of providing enterprises with highly qualified personnel. There is noted the importance of cooperation between enterprises and educational institutions at all levels for the development of relevant competencies of future employees. This cooperation should have the following directions: production – education, production – science, production - education – science. Moreover, not only professional skills are important for the employer, but also such competences as communication and organizational activities, project management. Ensuring the effectiveness of the cooperation needs: reconsideration of educational forms; contents of educational programs; retraining of higher education institutions lecturers; involvement of business representatives in the implementation of educational programs; quality control of educational programs; joint financing of university projects. The importance of supporting cooperation between business and educational institutions in formation and development of innovative regional infrastructure is also noted.

Keywords—enterprises, competitive advantages, higher education institutions, competencies, qualifications mineral and raw.

I. INTRODUCTION

It is obvious that the presence of competitive advantages due to the territorial position, the previously acquired experience, the developed and adopted to implementation strategic plans does not guarantee the absolute leadership of business entities in the conditions of dynamically changing society. [19] Competitive advantages are to maintain and develop that is inherently impossible without highly qualified personnel. The presence of this combination of factors is especially significant in a strategic perspective. Is not impossible to achieve the victory in the competitive struggle only by efforts of the productive sector. It is important to realize the need of development of strategic partnership between business, science and education.

II. RELEVANCE

So, a strategic partnership involves activities’ coordination of stakeholders on the basis of strategic interests’ development coincidence with the aim to obtain mutual benefits and, ultimately, the synergy effect.

In practice, the strategic partnership gives primarily the opportunity to jointly represent interests of producers, suppliers, processors at different levels of management, to determine the need for the number and qualification of staff, and to shape their development strategies in terms of openness of information, understanding of the behavior of all subjects of market relations.

III. FORMULATION OF THE PROBLEM

Speaking about problems existing in relations between business and the training system, it should be noted first and foremost the lack of educational programs and used educational technologies content updating taking into account development trends of industrial science and needs to improve the production techniques and technologies. In most cases there is no public accreditation of educational programs, for which reason graduates at the end of their university studies do not possess skills needed for production activity. This is due to the delay with the introduction of new information technologies, modernization of material-technical and laboratory base. The reason for this, in its turn, is the lack of sufficient funding sources.

IV. THEORETICAL PART

What is the direction of strategic interaction of production and education?

Training today the most important of strategic objectives. Only knowledgeable and skilled professionals with competences required for the production are able to provide the increase of added value. And, crucially, immediately after their incorporation into the production process after receiving higher education. [14]

Enterprises’ management not without reason wants to get graduates that are fully prepared for practice, which it is not necessary to “study up” for another year on production, i.e., to develop skills needed for them just in the production, to spend time of more qualified persons to explain, to observe. [15] And in this period the enterprise pays the salaries to a newly employed worker, which is not just useful, and to his instructor, which, in fact, is not engaged by his direct duties. Thus, there are losses: downtime, material. The economics is suffering...

As a result, enterprises, including those that operate efficiently, provide most of the domestic regional product, are objectively needed for highly qualified personnel, able to work on those equipment and technology, which they have at the moment. [10] They need to innovate too, whether new raw materials, materials, components, production technologies, energy...
saving, environmental protection technologies. Moreover, effective managers are focused on the fact that all of the above were competitive in content and price. Just in this aspect we are still losing to importers-manufacturers and suppliers, and the evolving international situation and the processes of globalization exacerbates the conditions to achieve production efficiency.[13]

The interaction of enterprises with the science sector also requires development. Researches are still carried out mostly without focusing on enterprises’ needs, imported innovations are dominated in production.[6]

These problems are characteristic for most sectors of the economy, educational and scientific institutions of the Russian Federation.

Providing the interaction between enterprises and Universities, we receive the possibility of proactive development.[12] In terms of strategic partnerships, informal communication between educational institutions and enterprises of the real sector will grow into the formation of basic departments in manufacturing, in the development of educational programs in cooperation with interested companies, in the presentation of graduate work to skilled production workers.[1] A real possibility at the graduation appears to get a such specialist who will be able to proceed directly to their areas of responsibility, showing all competence relevant to his professional activity.

The cooperation of production, education and science involves the formation of collaborative teams of researchers of educational and scientific institutions in priority research areas, the creation and sharing of collective-use centers.[9]

So, in strategic documents adopted in recent years regulating the processes of education development, among others, the task of updating the content of education in accordance with the future needs of functioning of subjects of economic activities, involving representatives of real sector of the economics to the development and examination of educational programs is set.[18, 20] While the need of competence development in the field of communicative and organizational activities, project management is accentuated.

This approach can be already implemented in the preparation of term papers and final qualifying works. Thus the student learns to see all production process as a whole, with its economic, personnel, marketing content. A graduate who received such skills, having studied a relevant discipline in relevant depart-ments on production, is a well-formed entrepreneur able not only to work effectively under, but also to conduct his own business.

Policy documents also pay attention to development of networking cooperation, informatization of learning process, development of distance learning programs.

Creation and development of applied research intensification centers, infrastructure development of technology transfer, formation of a monitoring system and promotion of R&D results, development of infrastructure of scientific advice with the participation of educational organizations is suggested essential.[7]

Resource development of educational and research activities, their optimization requires the involvement of a large range of stakeholders. In particular, the organization and functioning of the relevant regional associations of educational, scientific and industrial institutions, providing coordination of personnel, scientific and information support of regional industry, agriculture, other sectors of the economy is possible. [3] The development of new formats for targeted training to implement programs or adaptation modules at the request of employers and subject to their co-financing, involvement of business representatives to participate in the implementation of educational programs, quality control of educational programs, in financing projects of Universities is equally well important.[5]

The practical realization of these tasks focus us on building a system of cluster communications. Indeed, a great positive experience in this direction has long time ago accumulated by global economic community. [19]

From the analysis of existing experience of cluster functioning it is obvious that this form of integration will allow to complete the following tasks: [11]

- connect into a united whole the production, processing, trade, and also all industries servicing this chain. This reduces the number of intermediaries, transaction costs are reduced, long-term contracts on mutually beneficial terms are negotiated, market agents care about their reputation;
- to unite the interests of manufacturers and higher educational institutions in the training of highly qualified personnel with relevant competencies;[17]
- to increase the opportunities of market promotion of competitive domestic products. Thus conditions for the achievement and increase of competitiveness become obvious and clear;
- to overcome a local monopoly, as all subjects of interaction are interested in each other;
- improve the efficiency of the confrontation to inflation and speculative actions of the intermediary in the acquisition of production resources and the sale of end products of enterprises;
- to introduce actively innovative design – a gap in innovation leads to a decrease in efficiency of activity of economic entities and to loss of competitiveness. But in the cluster it is always possible to find a successful example of the same business.[2]

How can look such cluster in practice?

In the first place the interaction is implied, mostly informal, of businesses, that are leaders in the region in their sphere of activity. Specialized educational institutions with their educational and research capabilities, and scientific organizations located in a particular area will be no less important subject of the interaction.

It should be noted that today and more Universities are a point of attraction of various interested parties and stakeholders. They become the basis for mutually beneficial cooperation of research institutes, consulting companies, small and large companies, personnel departments, etc. [16] Thus, it can be argued that today Universities are able to become a core of scientific-industrial-educational regional cluster, whose development at the global level will contribute to the growth of self-
sufficiency of the population with consumer goods, food products on the basis of research and innovation results introduction. It will be possible at the national level to achieve environmentally oriented intensive development of industry and agriculture in accordance with the challenges of modernity in the context of globalization and the need for import substitution.

At the regional level this will promote a growth of competitiveness of industries and areas, the effective use human, natural and resource, production and technological capabilities, competitive advantages and possibilities of interregional and international cooperation, and, as a consequence, to improve the quality of life in a particular area.[8]

At the sectoral level it will ensure the growth of competitiveness of economic entities on priority directions of economy modernization with access to the forefront of the world market.[4]

V. CONCLUSIONS

Thus, from a strategic perspective, Universities are able to establish itself as “development institutions”, coordinating the cluster development of regional economy, initiating breakthrough development, actively participating in innovative projects, developing new types of activities.

REFERENCES


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