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IMPLEMENTATION OF INNOVATIONS DEVELOPED BY AN INSTITUTION OF HIGHER EDUCATION AT ENTERPRISES OF AGRICULTURAL AND INDUSTRIAL SECTOR

B.V. Yegorov, L.V. Kaprelyants, O.I. Danilova, S.N. Fedosov

Odessa National Academy of Food Technologies

Thanks to the close cooperation of Odessa National Academy of Food Technologies (ONAFT) employees with large holdings such as the Mironivskiy Khliboproduct (MKh) and NIBULON, innovations created by ONAFT are implemented to industry. Use of modern equipment allows to maintain a high level of production, while involvement of ONAFT experts helps to solve problems of the personnel policy.

The reality of the second decade of the XXI century has shown that the level of development and dynamism in the innovation area, i.e. science, knowledge-based industries and companies, world markets of technology, form the basis of the economic growth. The rapid worldwide spread of scientific discoveries, new means of communication and other innovations has a crucial impact on the economy, politics, culture, social services of almost all countries. Improving the economic importance of research and information products increased asymmetry between the development of the United States, Western Europe, Japan, on the one part, and other countries on the other part. This is due to the fact that basic research is largely concentrated in these three epicenters where technological progress became the third main factor, along with the labor and the capital. The economic growth and inexhaustible potential of «the human capital» are used the most effectively there. As a result, the production has become a large-scale innovation process, while limitations in capital and labor sources are overcome through investments in new knowledge and technologies.

Although a long and difficult road of national innovation systems formation in developed countries has largely passed, the Ukraine faces a difficult choice of the model system, which is the most appropriate for the country development with available natural, financial, human resources and considering the globalization process that has been steadily increasing. The only clear step in these circumstances may be introduction of the technology transfer and inclusion in the global exchange of innovations. The prerequisite is to create departments in developing innovations and training students organizations, which would widely disseminate information about the innovations. In Odessa National Academy of Food Technologies (ONAFT), there is the Information and Analytical Department (IAD), which helps in consulting on how to organize informing of employees about the need to commercialize results of scientific and technological activities, attracting investments, the implementation of measures to promote co-operation with enterprises and subjects of scientific and scientific-technical activities of Ukraine and foreign countries to use the results of this activity.

Large companies for accelerating the adaptation to new environmental conditions use the principles of the domestic business, moving from rigid bureaucratic management to flexible and agile one despite their risks. ONAFT has the opportunity to initiate implementation of the developed innovations and to use advanced equipment due to collaboration with JSC «Mironivskiy Khliboproduct (MKh)». The materials obtained at the JSC MKh are widely used during lectures in thirty lecture courses and numerous diploma projects. New information is implemented in the educational process at the following departments: the Technology of Meat and Meat Products, the Grain Storage Technology, the Technological Equipment for Food Industry, the Feed Technology, the Automation of Production Processes. The practical training has been organized for students of the following four faculties: the Technology of Grain and Bread Products; the Technology of Food Safety and Environmental Management; the Automation, Computer Systems and Entrepreneurship Management; the Technological Equipment and Technical Service.

Developed by ONAFT recommendations in close cooperation with the holding staff allow to guarantee safe working conditions, to reduce the loss of raw materials and finished products. Implementation of rational and cost-effective recommendations ensures compliance with the State Standards, sanitary requirements and requirements for export products that certainly helps to improve the level of the specialists training through implementation of the innovations in the specific enterprises and increase the credibility of domestic manufacturers and specialists, who prepare professionals for the agro-industrial complex of Ukraine.

The training of doctoral students, graduate students, and research staff is organized on a regular basis at the main enterprises of the Mironivskiy Khliboproduct, the Katerinopilskiy elevator, the Mironovsky ZVKK, the Mironivsky plant of semi-finished products, the Myronivska Ptakhofabrika, as well as at the branches of the «Friendship of Peoples» Myasokombinat, and the «Starynska Ptakhofabrika». The staff of the Mironivskiy Khliboproduct participates in the organized by ONAFT scientific conferences aiming to improve agriculture in Ukraine.

The NIBULON produced in 2013 more than 120,000 tons of grain, which line elevators and farmers terminals took from representatives of the company. This figure is 25 % higher than in the previous year, and it is a record of the gross collection. Graduates of ONAFT are successfully working at elevators of this company. Students are practicing, while the staff engaged in projects of ONAFT gives the scientific support. A new laboratory with the modern equipment has been established in ONAFT with assistance of the company. This is a positive example of how big business companies support educational institutions.

The rapid development of the NIBULON simultaneously in many areas, the implementation of major investment projects and the development of new activities were the result of the leadership by A.A. Vadaturskiy and a team of experts, most of whom are ONAFT graduates. It is because of their responsible approach, the constant striving for improvement and development, and cooperation with the native Academy it was possible to achieve the high productivity of labor. System of training and personnel development are carried out in close cooperation with ONAFT. Thus, specialists are engaged in a variety of programs and projects, they fulfill unusual tasks, particularly during the students practice and performance of contractual research projects and topics.

Conducting of practice by students and increasing of teachers' qualification are used during supervising of students' diploma projects. Information obtained during the advanced training is in-

cluded in the lecture courses, laboratory works, as well as in guidance for laboratory works and term papers, and in guidance for independent work of the students.

Through creative collaboration, recommendations were developed to improve energy management of enterprises and recommendations for improving the process performance and the sanitary state of production. Moreover, the obtained results are used in lecture courses, workshops, writing guidelines, coursework and dissertations. Research results were published in scientific journals and reported at numerous scientific conferences.

Meanwhile, the development of the most promising technologies does not mean that they are automatically transformed into products and get themselves at the market. To do this, it is necessary to find and select the best ways of commercialization. The work, which includes information and analytical support for creating ingenious development, conservation, protection and commercialization of the scientific, technical and intellectual property, is carried out in ONAFT by the Information and Analytical Department (IAD). One of the functions of the IAD is the study of market needs for using scientific, technical, research, analytical and other activities, as well as the implementation of innovations. The department is responsible for promoting the intellectual property of ONAFT to the market, looking for potential partners, distributing of developed curricula, signing and implementing of agreements for performing research. Among the tasks of IAD, there is a professional assessment of the commercial potential of scientific and technological developments, the competitiveness of a new idea. For the market promotion of the scientific and technological developments of ONAFT, for informing people on developments in scientific and practical field, collection of «ONAFT Innovations» is updated annually. It contains the most promising and almost finished developments. The edition includes not only the scientific technology, but also the applied research in the field of the new educational technologies. Getting acquainted with it would be useful for industry managers, scientists, activists of education, entrepreneurs, representatives of the government and local authorities.

In the focus groups for preparation of the Strategy of Economic and Social Development of Odessa until 2022, there are six ONAFT scientists, experts in various fields.

ONAFT staff actively participates in various activities as experts, such as the focus groups of the «Competitive City: Problems and Solutions» project in the framework of the Conception of the strategic development of «Odessa 2022». Moreover, they are actively involved in the «round tables», workshops for different categories of students on intellectual property, technology transfer, innovations and consulting.

Innovative proposals of technological departments to create new food additives, dairy technology, canned products and technical documentation for some of them, recipes and production process of meat products (sausages, pates, etc.), technology and recipes of animal feed products are presented at the Internet site of ONAFT within a virtual exhibition of the achievements that is updated annually.

During the first 9 months of 2013, ONAFT took part in the 8 exhibitions related to the creation and implementation of various innovations both in education and in agricultural enterprises.

Significant amount of innovations are available in ONAFT that can be implemented in the agricultural sector including small businesses and farmers. However, the entire process is limited to addressing specific small tasks of working enterprises because of the crisis and because of the inability of small business to pay even partially for rights of the created in ONAFT intellectual property. They also cannot pay for advice of specialists and conclude agreements, so their activity is limited by solving small specific tasks that the working enterprise is facing.

Trends in development of the world economy clearly show that Ukraine cannot have any other way of development than formation of the economy based on knowledge, i.e. the innovation type of the economy. Underestimating of this could lead to the fact that our country will be gradually replaced in the coming years from the market of not only the high technological products, but also from the market of goods creation and services in general. Ultimately, this will not raise living standards of people or provide security services of the country as a whole. That is why it is extremely important to exchange of experience in protection and enforcement of the intellectual property rights with countries that have already passed the stage of the broad implementation of innovations in production and application of the technology transfer, which is available in Japan.