

CREATION AND DEVELOPMENT OF ELEMENTS OF INNOVATIVE INFRASTRUCTURE OF PHARMACEUTICAL AND BIOTECHNOLOGICAL SPHERES IN THE REPUBLIC OF BELARUS

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Experts believe that the primary internal factor that hinders transition of the Republic of Belarus to the path of innovative development is the country's established institutional environment. However, the Republic of Belarus has sufficient scientific and technical potential. And the main reason for the ineffectiveness of the Belarusian national innovation system is rooted in the fact that separate elements of this system appear to be incompatible with each other.

In the Republic of Belarus, the pharmaceutical and biotechnological spheres belong to high-tech industries. Therefore, competitiveness of enterprises working in these spheres is ensured by the wide use of these industries' scientific and technological achievements. The scientific potential associated with the industry is orchestrated by organizations under the National Academy of Sciences of Belarus, their production centers, organizations of the Ministry of Education and Ministry of Health. However, despite the relatively large number of innovative structures present in the Republic of Belarus, there are a number of challenges associated with their interaction.

Accelerated shaping of the high-tech sector in the Republic of Belarus could be ensured through implementation of the following activities:

- focusing the entirety of state authority related to state regulation of innovative development in one authorized body that would provide simplified access to financial and non-financial supporting tools for innovative enterprises responsible for the implementation of the state innovation policies. Absence of such a state body at the legislative level is a deterrent to the innovative development of the state;

- use of partnerships joining state and private sectors to identify commercial potential and promote scientific research. Small innovative entrepreneurship is capable of quickly bringing research and development to a commercial form and organizing production of innovations. Therefore, the state should spark the interest of representatives of small businesses in the implementation of innovations. The formation of state and private partnerships in Belarus is already underway. This is significantly different from the traditional full state ownership, which provides access to the sectors of economy and ensures long-term capital investments with a pre-agreed and guaranteed return rate;

- development of the National Science and Technology Park as the platform for innovative entrepreneurship activities, contributing to the emergence of new industries in the country. Creation of a science and technology park in the field of pharmaceuticals, nano- and biotechnologies in the Republic of Belarus should allow finding and accumulating available resources for the development of high-tech industries, ensuring implementation of the full innovation cycle of research and development all the way to the production of high-tech products. The main advantage

of the project will be the creation of a platform for communication between researchers, developers, entrepreneurs and investors, integrated into the global innovation system, as well as framing of a significant export potential and access to the new markets in the pharmaceutical, nano- and biotechnological industries;

– raising the competitiveness of universities through opening of engineering centers on their basis with specialization in the key activities where these universities already have superiority. Establishment of engineering centers at the leading technological and medical universities of the Republic of Belarus will ensure complementarity of science and technology and help enterprises in attracting young qualified personnel. The main advantage of creating such a center is the synergy of universities and real sector of the economy, which will reduce dependence on imported technologies, as well as integrate the results of scientific research of universities into the real sector of the economy and their commercialization. Engineering activity ensures cost effectiveness and overall efficiency of innovative project implementation by supporting all business processes through engagement of engineering organizations at each stage of the project. At the same time, with proper organization of work, project implementation timeframes can be reduced and investment risks decreased;

– creation of Belarusian multi-level system of continuous training, retraining and advanced training in new specialties of innovative activities, including pharmaceutical and biotechnological spheres;

– management of HR potential in the field of scientific, technical and innovative activities, increase of the managerial personnel's training level;

– development and state support of young people's inventiveness and startup movements.

To ensure effective development of the indicated activities in the Republic of Belarus, a number of legislative, regulatory, organizational, technical and economic measures are required.