

**INNOVATION AS A FACTOR IMPROVING
ECONOMIC COMPETITIVENESS
OF THE REPUBLIC OF BELARUS**

**Kievich Diana A., graduate student
University of Economics, Prague, diana.kievich@yandex.ru**

The article focuses on the issues of financing innovation, which is one of the most effective mechanisms for improving the competitiveness of the economy worldwide. It is emphasized that for the Republic of Belarus at the present stage of its development these issues are very relevant and their solution will ensure the transition of the country's economy to a higher technological level and increase its competitiveness.

Keywords: innovation, competitiveness of the economy, high technological level, the economy of the Republic of Belarus

Financing of innovation around the world is one of the most effective mechanisms to improve the competitiveness of the economy. That's why the most important strategic direction of the development of the Republic of Belarus (RB) at the present stage is the desire for innovative development of its economy. The solution to this problem will ensure the transition of the country's economy to a higher technological level and increase its global competitiveness [1].

In order to characterize the state of innovation activity of Belarus, it is necessary to consider the main innovation indicators, which are presented in the table 1.

Table 1. – Indicators characterizing innovation in the Republic of Belarus for 2014 – 2018, %

Indicators	2014	2015	2016	2017	2018
The proportion of innovatively active organizations	21,5	20,1	18,9	19,5	19,8
The proportion of industrial organizations that incurred costs of technological, organizational, marketing innovations	24,4	22,8	21,1	21,7	22,5
The proportion of shipped innovative products	17,8	13,9	13,1	16,3	17,4
The proportion of shipped innovative products new to the domestic market	44,6	46,0	35,7	43,5	49,1
The proportion of shipped innovative products new to the global market	0,6	1,2	1,8	0,5	0,5

Note – Source: own development based on [2]

Based on the presented data, it follows that these indicators have a tendency to decrease from 2014 to 2016, but already from 2017 you can notice a tendency to increase. Thus, the share of innovation-active organizations in 2018 amounted to 19.8% of the total number of examined organizations and this is 0.2% more than in the previous year. The share of industrial organizations that incurred costs of technological, organizational, and marketing innovations in 2018 amounted to 22.5%, which is 0.8% more than in 2017. The share of shipped innovative products in 2018 increased by 0.9% and amounted to 17.4%. The share of new for the domestic market innovative products which were shipped in 2018 compared with 2017 increased by 5.6%, while for the world market it remained unchanged and amounted to 0.5%.

As for the number of domestic patent applications for inventions, they can be analyzed based on the coefficient of inventive ability, which is presented in the table 2.

Table 2. – The coefficient of inventive ability in the Republic of Belarus for 2014 – 2018

	2014	2015	2016	2017	2018
The coefficient of inventive activity	1,6	0,8	0,6	0,5	0,5

Note – Source: own development based on [2]

This ratio shows the number of domestic patent applications for inventions filed in the Republic of Belarus per 10,000 people. Thus, you can notice a decrease in this coefficient from 2014 (1.6) to 2018 (0.5) and this means that inventive activity in Belarus is declining.

Since the most popular and profitable, as well as ensuring high competitiveness industry in the Republic of Belarus is industrial production, we will analyze innovative active organizations by type of innovative activity. The data are presented in the table 3.

Following the presented data, we conclude that in 2018 the greatest attention is paid by industrial organizations to production design and other types of preparation for the production of new products, which is characterized by the number of organizations that are focused on this type of innovation.

In 2018, this indicator amounted to 179 organizations, or 51.6% of the total number of innovation-active organizations, that is 17 organizations less than in the previous year. Also, special attention is paid to the acquisition of machinery and equipment related to technological innovation. The number of industrial organizations that emphasized this type of innovation activity amounted to 139, or 40.0%. Another common type of innovation is the research and development of new products, services and methods for their production (transfer), new production processes. Last year 136 organizations (39.2%) were concentrated here, which is 12 more compared to 2017.

Table 3. – Innovatively active industrial organizations by type of innovative activity in the Republic of Belarus for 2014 – 2018, units

Indicators	2014	2015	2016	2017	2018
Total innovation-active organizations	411	383	342	345	347
of which carried out:					
- research and development of new products, services and methods for their production (transfer), new production processes	113	110	122	124	136
- acquisition of machinery, equipment related to technological innovation	240	203	151	135	139
- acquisition of new and high technologies	16	12	10	6	7
- acquisition of computer programs and databases related to technological innovations	34	23	16	18	15
- production design, other types of production preparation for the release of new products for the introduction of new services or methods for their production (transfer)	195	206	184	196	179
- training, retraining and advanced training of personnel related to technological innovations	51	40	33	28	32
- technological innovation-related marketing research	43	38	29	27	25

Note – Source: own development based on [2]

Next, we analyze innovatively active industrial organizations in the regions and the city of Minsk (Figure). From the presented diagram, it follows that in the period from 2015 to 2017, the largest number of innovatively active organizations was concentrated in Minsk. In 2015, the largest share after Minsk belonged to the Vitebsk region and amounted to 28.1%, which is 9.3% more than in the Grodno region (18.8%), and 12.4% more than in the Brest region (15.7%). In 2016, industrial organizations of the Brest region showed their activity, the share of which amounted to 26.3%, as well as organizations of the Vitebsk and

Minsk regions. As for 2017, the Brest (26.0%) and Vitebsk (22.2%) regions, as well as Grodno (20.8), remained the most innovatively active regions. It can be noted that the smallest number of innovation-oriented organizations were concentrated in the Minsk region because their main volume were occupied in Minsk.

The main reasons for restraining innovative development in the Republic of Belarus today are:

- aging human resources of science;
- “brain drain”;
- weak capital-labor ratio and limited abilities of Belarusian scientists to track the latest achievements of science and technology;
- low level of development of innovative infrastructure, capital and labor, low level of management.

It is necessary to implement the “State Program for Innovative Development of the Republic of Belarus for 2016-2020” [4] to solve that kind of problems. This program, in turn, provides for the quality growth and competitiveness of the national economy with the concentration of resources on the formation of its high-tech sectors, based on the production of V and VI technological arrangements.

The implementation of the State Program will contribute to:

- the formation and accelerated development of high-tech sectors of the national economy;
- consolidating the position of the Republic of Belarus in the markets of high technology products;
- ensuring competitiveness of traditional sectors of the national economy on the basis of their innovative development and introduction of advanced technologies;
- creating of a market for scientific and technical products and an enabling environment for innovation.

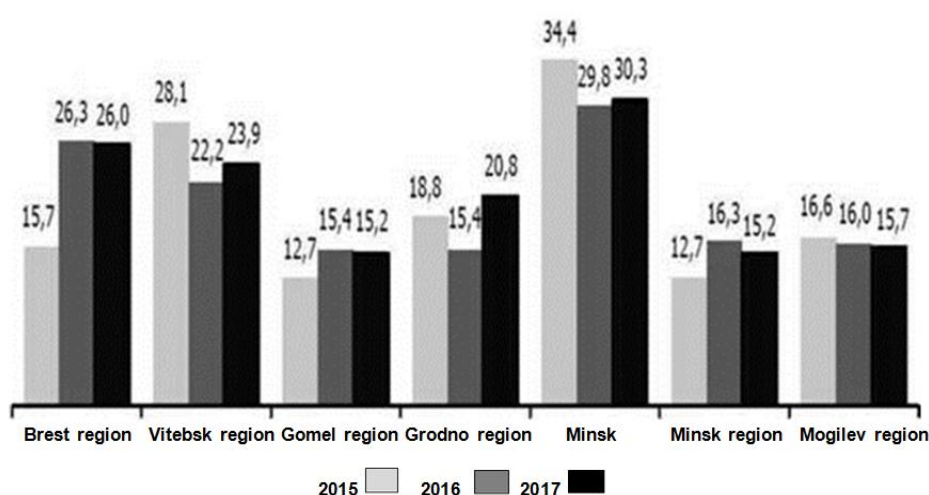


Figure – The proportion of innovatively active industrial organizations by regions and the city of Minsk for 2015 - 2017, %

Note – Source: [3]

We also note that the structure of factors of production and investment should constantly improve in favor of innovation. For example, the creation of R&D centers. In the Republic of Belarus at the moment there are no R&D centers of any global corporation. In comparison, Romania has large Microsoft and Oracle development centers. In the Czech Republic there are R&D centers of dozens of global corporations.

In conclusion, we note that the greater the share of high-tech products and high technologies in GDP, the higher the country's competitiveness [5]. And we emphasize that welfare is the goal of society, factors of production and investment are means, and innovation is the method of achieving the goal. Thus, innovation with an active stimulating state policy should become a priority activity of organizations in the Republic of Belarus, and promoting innovative development of the country today will ensure its competitiveness in the world market tomorrow [6].

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