

UDC 332.1

**STUDY OF THE POTENTIAL OF THE REPUBLIC OF
BELARUS FOR THE IMPLEMENTATION OF THE
"SMART SPECIALIZATION" STRATEGY**

Sherstneva O.

Vitebsk State Technological University, Belarus

e-mail: olga_sherstneva@mail.ru

Шерстнева О.М.

Витебский государственный технологический университет, Республика Беларусь

Keywords: innovations, research and entrepreneurship, regional development, smart specialization strategy.

Ключевые слова: инновации, исследовательская и предпринимательская деятельность, региональное развитие, стратегия «умной специализации».

Abstract. The article defines the main indicators characterizing the possibility of applying the "smart specialization" strategy, including the scientific and innovative environment of the regions, as well as the business sector. A study of innovative, scientific and entrepreneurial activities of the Republic of Belarus in the context of regions was carried out. As a result of the study, both positive and negative trends. The main directions of activation of innovative, scientific and business development of enterprises of the Republic of Belarus are proposed in order to create the possibility of applying the strategy of "smart specialization".

Аннотация. В статье определены основные показатели, характеризующие возможность применения стратегии «умной специализации», включающие научную и инновационную среду регионов, а также предпринимательский сектор. Проведено исследование инновационной, научной и предпринимательской деятельности Республики Беларусь в разрезе регионов. В результате проведенного исследования были определены как положительные, так и отрицательные тенденции. Предложены основные направления активизации инновационного, научного и бизнес развития предприятий Республики Беларусь с целью создания возможности применения стратегии «умной специализации».

A key aspect of "smart specialization" both at the regional and international level is the promotion of technology, science and business, as well as the creation of competitive advantages that would allow these territories to stimulate their economic and social development on the principles of sustainable development. A key element of the smart specialization strategy for regional innovation and innovation development is the promotion of technology in the business of enterprises and economic and social institutions [1, 2]. The Smart Specialization Strategy is, in fact, a part of the European Commission's Smart Growth Strategy, which aims at leading Europe towards smarter, more inclusive and more sustainable growth.

Thus, "smart specialization" is a concept for the development of the region based on the identification of competitive areas/activities and the promotion of smart business systems and smart cooperation [3].

The effectiveness of research activities is largely determined by the number of organizations that carry out research and development; intellectual potential, which is formed by scientific personnel; as well as the volume of research and development performed, scientific and technical services provided by organizations. The Republic of Belarus is traditionally considered a state with a significant scientific and intellectual potential; scientific schools recognized in the world; and a developed system of personnel training.

In terms of the number of organizations performing research and development, there is a noticeable decrease in their number: by 9 organizations in the Republic. However, the growth of the organizations under study is visible in the Vitebsk and Gomel regions; the leading position over the past five years has been occupied by the city of Minsk. The lagging regions for this indicator are the Mogilev and Grodno regions [4, p. 755]. In terms of the number of personnel involved in research and development, it can be noted that the largest number of people corresponds to the city of Minsk and the Minsk region, however, in 2020 there is a noticeable increase in the number in the Vitebsk region (+198). But also in 2020, compared to 2019, in the Republic as a whole, there is a decrease in the number of personnel engaged in research and development by 2113 people [5].

A number of researchers point at a negative trend of -3.8 % (-130 people) [4, p. 754]. At the same time, despite the decrease in the number of organizations using innovations, the volume of research and development carried out is growing [4, p. 756]. As evidenced by the given data, in the analyzed period there is an increase in the volume of research and development performed, scientific and technical services provided by organizations.

The innovative activity of enterprises is not only a characteristic indicator of innovative activity in the country, but also one of the main indicators of the knowledge economy. According to the data of the National Statistical Committee of the Republic of Belarus, during the study period, there has been an increase in the number of Belarusian enterprises engaged in innovative activities in all regions of the country, with the exception of the Minsk region [6]. In the analyzed period, the growth rate of shipped innovative products was positive in all regions, with the exception of Minsk. In addition, there was a decrease in the share of shipped innovative products in the total volume of shipped products in 2019 from 18.6 % to 16.6 %. However, at the end of the analyzed period, there was a positive trend. Thus, in 2020, compared to 2019, the share of shipped innovative products in the total volume of shipped products increased from 16.6 % to 17.9 %. This circumstance testifies to the increased susceptibility of national enterprises to innovations as a means of increasing their competitiveness [7]. It should also be noted that at the end of 2021, 88 organizations participate in joint projects for the implementation of innovative activities, which is about 20 % of all organizations performing research and development in 2021. The largest number of organizations

participating in joint projects for the implementation of innovative activities in 2021 is noted in Minsk, in the Brest, Vitebsk and Minsk regions. In terms of the number of joint projects for the implementation of innovative activities, the city of Minsk and the Brest region are in the lead [8].

One of the important components of the implementation of the "smart specialization" strategy is the entrepreneurial activity of the regions and the country as a whole. For the period 2016–2020 there is an increase in the share of small and medium enterprises participating in joint innovation projects. The share of staff employment in knowledge-intensive activities has been on the rise over the past five years. Also, the share of innovations new to the market and new to the company in the total turnover in the Republic of Belarus as a whole in 2020 increased by 0.39 % compared to 2019 [9]. The growth of these indicators is associated with an increase in the share of investments in fixed assets of SMEs. Minsk, and Minsk, Mogilev, and Vitebsk regions occupy the leading position in terms of the share of investment in fixed capital of SMEs. In the Grodno and Brest regions, there is a noticeable decrease in the share of investment in fixed capital of SME organizations in 2020 compared to 2019 [10].

The study made it possible to determine that the development of innovative, scientific and entrepreneurial activities of enterprises in the Republic of Belarus is characterized by both positive and negative trends. Thus, in the main areas characterizing the possibility of applying the "smart specialization" strategy, the following conclusions can be drawn:

To activate the innovative, scientific and business development of enterprises of the Republic of Belarus in order to create the possibility of applying the "smart specialization" strategy, it is necessary: development of new and improvement of basic industrial technologies to improve the quality of products, reduce the cost of its production; development of innovative products with high added value, involving modifications of the product and modernization of the technological process; development of sectoral and university science, creation on their basis of sectoral scientific and testing laboratories for the needs of all sub-sectors of industry; provision by the state of the principles of sustainable financing of research and development using various sources (the republican budget, innovation funds, venture funds, grants, own funds of enterprises); development of various forms of scientific and technical partnership, expansion of the geography of the search for business partners in the innovation sphere between regions and abroad.

References

1. Sörvik, J. Smart Specialisation in sparsely populated areas: challenges, opportunities and new openings / J. Sörvik, J. Teräs, A. Dubois, M. Pertoldi // *Regional Studies*. – 2019. – Vol. 53(7). – pp. 1070–1080.
2. Hassink, R. Six critical questions about smart specialization / R. Hassink, H. Gong // *European Planning Studies*. – 2019. – Vol. 27(10). – pp. 2049–2065.

3. Шерстнева, О. М. Стратегия «умной специализации» регионов: теоретические аспекты и европейский опыт / О. М. Шерстнева, Г. А. Яшева // Вестник Витебского государственного технологического университета. – 2022. – № 1(42). – С. 214–226.
4. Статистический сборник «Регионы Республики Беларусь 2021». Том 1 / Национальный статистический комитет Республики Беларусь. – Минск, 2021. – 776 с.
5. Национальный статистический комитет Республики Беларусь. Интерактивная информационно-аналитическая система распространения официальной статистической информации [Электронный ресурс]. URL: <http://dataportal.belstat.gov.by/Indicators/Preview?key=148631>.
6. Национальный статистический комитет Республики Беларусь. Интерактивная информационно-аналитическая система распространения официальной статистической информации [Электронный ресурс]. URL: <http://dataportal.belstat.gov.by/Indicators/Preview?key=148645>.
7. Национальный статистический комитет Республики Беларусь. Интерактивная информационно-аналитическая система распространения официальной статистической информации [Электронный ресурс]. URL: <http://dataportal.belstat.gov.by/Indicators/Preview?key=148645>.
8. Статистический бюллетень «О научной и инновационной деятельности в Республике Беларусь в 2021 году» / Национальный статистический комитет Республики Беларусь. [Электронный ресурс]. URL: https://www.belstat.gov.by/ofitsialnaya-statistika/publications/izdania/public_bulletin/index_50314/.
9. Отдельные показатели Европейского инновационного табло (EIS-2021) по Республике Беларусь / Национальный статистический комитет Республики Беларусь. [Электронный ресурс]. URL: <https://www.belstat.gov.by/ofitsialnaya-statistika/realny-sector-ekonomiki/nauka-i-innovatsii/>.
10. Национальный статистический комитет Республики Беларусь. Интерактивная информационно-аналитическая система распространения официальной статистической информации [Электронный ресурс]. URL: <http://dataportal.belstat.gov.by/Indicators/Preview?key=233842#>.