

UDC 330.14.014

PROBLEMS OF THE DEVELOPMENT OF INTELLECTUAL CAPITAL OF THE REPUBLIC OF BELARUS IN THE CONTEXT OF FORMATION OF POST-INDUSTRIAL ECONOMY

ПРОБЛЕМЫ РАЗВИТИЯ ИНТЕЛЛЕКТУАЛЬНОГО КАПИТАЛА РЕСПУБЛИКИ БЕЛАРУСЬ В КОНТЕКСТЕ ПРОЦЕССА ФОРМИРОВАНИЯ ПОСТИНДУСТРИАЛЬНОЙ ЭКОНОМИКИ

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ABSTRACT

INTELLECTUAL CAPITAL, PARADIGM
OF SUSTAINABLE SOCIO-ECONOMIC
DEVELOPMENT, POST-INDUSTRIAL ECONOMY

With the integration of the economy into the world space and the formation of a post-industrial society and the economy of knowledge, intellectual capital and people become not only factors, but also the goal of economic development. The article analyzes the main indicators of the development of intellectual capital of the country, such as the dynamics of the number of scientific organizations, the number and structure of personnel, the material base of scientific organizations, the share of public sector spending on research and development in GDP. Here we formulate the main directions of development of intellectual capital in the economy of the Republic of Belarus.

АННОТАЦИЯ

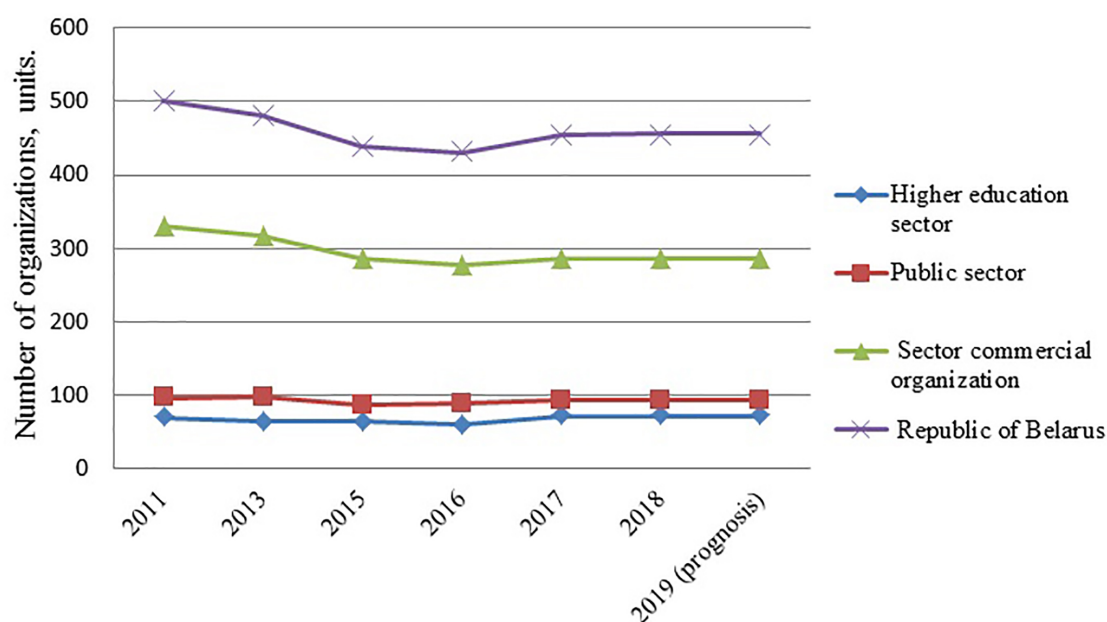
ИНТЕЛЛЕКТУАЛЬНЫЙ КАПИТАЛ, ПАРА-
ДИГМА УСТОЙЧИВОГО СОЦИАЛЬНО-ЭКО-
НОМИЧЕСКОГО РАЗВИТИЯ, ПОСТИНДУ-
СТРИАЛЬНАЯ ЭКОНОМИКА

В условиях интеграции экономики в мировое пространство и формирования постиндустриального общества и экономики знаний, интеллектуальный капитал и его носитель человек становятся не только факторами, но и целью экономического развития. В статье анализируются основные показатели развития интеллектуального капитала страны, такие как динамика численности научных организаций, численность и структура кадрового состава, материальная база научных организаций, доля расходов государственного сектора на НИОКР в ВВП. Формулируются основные направления развития интеллектуального капитала в экономике Республики Беларусь.

The integration of Belarus into civilizational world economic relations, and the related processes of liberalization of international trade, greening of economic activity, the processes of creating a post-industrial society, have led the country to the need to form a paradigm of sustainable socio-economic development. Here a person will become not just a factor of development, but its main goal. These processes cause a change in the role and importance of intellectual capital, the formation of the so-called knowledge economy. In this regard, the problems of research of qualitative and quantitative indicators of intellectual capital development in Belarus are of particular importance.

The most important indicators of the quality and productivity potential of scientific and scientific-technical activities are: the number of scientific organizations; the volume and structure of research and development; the number and structure of scientific personnel; the sources of funding and spending on research developments; and the material-technical base, etc.

Here we analyze the dynamics of the number of organizations engaged in research and development (fig. 1).



Source: by the author on the basis of [1]

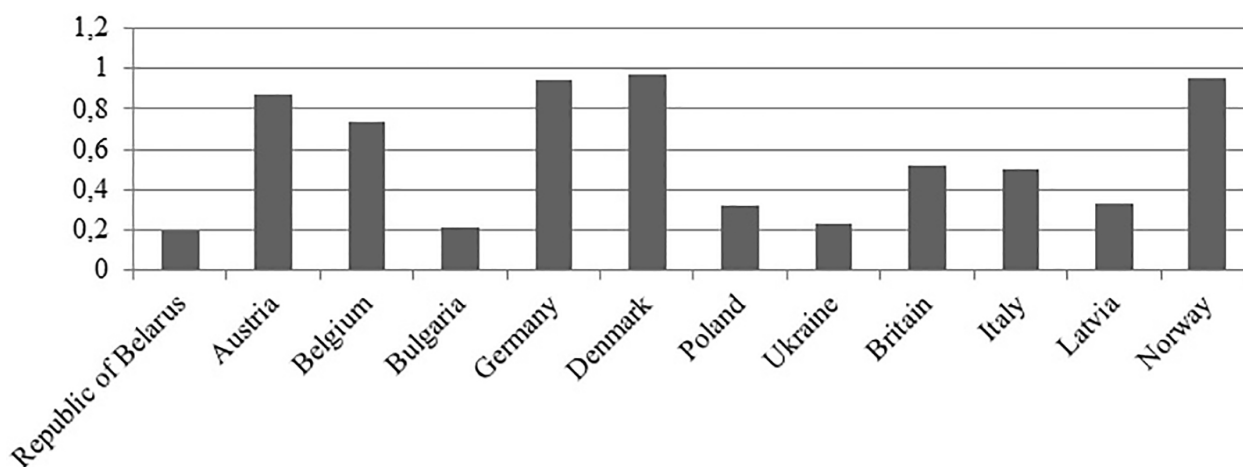
Figure 1 – Number of organizations engaged in research and development

According to the analysis of data on the Republic of Belarus, the number of scientific organizations in recent years has decreased significantly (over the past 8 years by 47 units or more than 9 %). At the same time, the reduction in the number of organizations affected both organizations with state ownership and commercial organizations operating in the field of scientific research and development (Fig.2). There was a significant reduction in the number of non-governmental sector organizations (13.5 %) and a less significant reduction

in public sector organizations (3 %). This is due to funding opportunities for the last of the state budget funds. The main reason of the negative dynamics of indicators of the number of research organizations is the reduction in demand for the national innovative product and its displacement from the domestic market. This is largely due to the overall reduction in the number of researchers, and hence the volume of research works. So in the 1990 s there was a decrease in number of researchers by 3.3 times [2]. Currently, the trend of reducing the number of scientific personnel remains.

At the same time, changes in the age structure of researchers occur in an unfavorable direction. From science there is an outflow of the most productive middle-aged 30-39 years. The proportion of researchers aged 30-39 has decreased from 32.3 % to 24.2 % over the past 15 years, and over 60 has increased from 2.1 % to 19.0 %. At the same time, the share of doctors of Sciences aged 30-39 years is only 0.47 % of their total number [1]. Such age structure of scientific potential is dangerous by loss of continuity required for reproduction of scientific schools.

The low share of public sector expenditure on research and development in GDP is also a significant problem. Although it has increased from 0.17 % to 0.19 % in 10 years, it is still significantly lower than in other developed countries (Fig. 2).



Source: developed by the author on the basis of [1]

Figure 2 – Share of public sector expenditure (including higher education) on research and development in GDP (EIS-2018), in %.

Another problem is the significant depreciation of the fixed capital of scientific organizations. The analysis showed that 1/3 of their buildings have more than 60 %, and more than half of 40 % wear. The average annual coefficient of renewal of the active part of production facilities is only 5 %, which is almost 3 times lower than the level recommended by modern economic science [2].

In the context of globalization, integration and the formation of a single economic space, the problems of development of the scientific potential of the Republic of Belarus turn into a problem of "survival" of the national economy in the modern world economic system. The country implements a system of measures to develop the national intellectual capital through a number of program documents such as "Belarus 2020: Science and Economy", "Science and Technology: 2018-2040" and others. However, as the analysis has shown, there are still a number of serious problems in the development of intellectual capital of the country.

Building up the intellectual component in the conditions of integration processes in the economy should be provided in three main directions: building scientific competence and increasing the mobility of scientific personnel; strengthening relationships and interaction in science and innovation; transformation of Belarus into an IT country. At the same time: first, measures related to improving the efficiency of the use of intellectual capital should be comprehensive; secondly, the essential point is to solve the personnel problems of the development of domestic science and education, which are associated with the improvement of material incentives for the work of scientists. It will increase the number of scientific personnel and improve their age structure; third, in the context of the predominance in the national economy of large enterprises with high share of public capital, it is necessary to develop public-private partnerships, implemented through the mechanism of self-financing of scientific and technical sphere. On this basis we should attract the commercial sector more widely in the processes of intellectual capital formation; fourth, these measures should be supported by creation of favorable conditions for investments in knowledge-intensive production, including on the basis of tax benefits for enterprises that use intellectual capital.

To a certain extent, the implementation of these measures will solve a number of problems facing the development of Belarusian science and will contribute to the growth of the effectiveness of the use of the intellectual potential of the country.

REFERENCE

1. Science and innovation in the Republic of Belarus. Statistical compendium. Minsk 2018. [Electronic resource]. – Mode of access: http://www.belstat.gov.by/ofitsialnaya-statistika/publications/izdania/public_compilati_on/index_10791/?special_version=Y– Date of access: 10.09.2019.
2. Analysis of the innovative potential of the Belarusian economy. [Electronic resource.] – Mode of access: <http://era-oikonomos.org/analiz-innovatsionnogo-potentsiala-ekonomiki-belarusi/> – Date of access: 10.09.2019.