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**ON THE INCREASING ROLE OF INTELLECTUAL PROPERTY
IN THE DEVELOPMENT OF ECONOMY AND STATE**

The world is looking for a new socioeconomic formation. The neoliberal economy demonstrated its low efficiency in the pandemic environment, first of all, when product delivery chains, global division and specialization of labor

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were disrupted. Today, if a country has natural resources, it does not guarantee its high standard of living and dynamic rates of development. A vivid example is African countries that have enough natural resources but at the same time a low standard of living. While such countries as Japan, South Korea, Israel have no natural resources of their own but can boast powerful economies and high rates of development.

The sanction wars demonstrated that switching off international payment systems and the limitation of access to global finances surely cause damage to a country but it is incomparable with the damage from the limitation of access to technologies. Because of that one can confidently say that technologies and intelligence capable to generate them rule the world today. And this trend will only strengthen. Today, it is no problem to launch production of goods in the world, it is much more difficult to think up a new product or service that will be in demand on the market. A unique tech-

Resource for Economy’s Development”, etc. Awarded the Order of Friendship, medal “For Contribution to the Creation of the Eurasian Economic Union” II degree, etc.

nology is very highly priced but it becomes much cheaper as soon as it becomes possible to copy it. Technologies are developing so rapidly that humankind is not always capable to perceive possible consequence of their large-scale application.

The formation of the new “Knowledge economy”, economy based on knowledge, is currently taking place in the world as one of the courses of the new socioeconomic formation. Recently, such ideas as “generalist” – creator (M. Rubinstein, A. Fistenberg) and “homo creativus” – creative man (D. Foster) appeared in the economic theory. The term “visionaries”, i. e. people who can not only “see new requirements, project the future” but also satisfy new requirements for a wide range of consumers who accept them, changing the quality of life, is starting to circulate. According to the results of the research conducted by the World Bank, the demand for the transmitted skills of the highest order such as logic, critical thinking, complex solution of problems and ability to discourse is growing.¹

As a result, the theory of building “Creative economy” is already being formed in the world. It is impossible without intellectualization of all processes, both technological and social. And the outrunning technological and innovative development of any economy or state is impossible without them.

The intellectual capital is becoming the most important resource of the socioeconomic systems’ development, the share of the intangible assets in the cost of organization (enterprise) in increasing. Intelligence becomes the basic resource in the development of high-tech industries,² providing increase of the world trade in high-tech goods as well as the intellectual products directly in the form of patents, trademarks, knowhow and other objects of industrial property, including the subject matter of copyright: programs, databases and recently amounts of information as well.

When forming his theory of innovative economy and entrepreneurship, Peter Drucker said already in the last century that this progress led to new knowledge, new information becoming the main resource. Proceeding from that, he named the forming society the information society.

The Noble Prize winner Zhores Alferov said that it was necessary to actively increase the number of high-tech intellectual working places providing production of science-based high-tech products but, most important, create the conditions for highly productive and creative labor. That enhances the quality of life, gives individuals an opportunity for self-realization.³

The intellectual leadership becomes the basis of competitiveness in the international field. The idea of intellectualization originates from the word “intelligence”, which means “comprehension, brainpower” if translated from Latin. Intelligence is inherent to humans and is manifested in their activities, because of that it can be considered

a production factor which includes individual’s knowledge, skills, capabilities and experience.⁴

The scientific and technical development, intellectual labor create conditions for the formation of technological platforms focused on activization of innovative processes which are becoming the most important tool providing competitiveness of produced goods as well as of the enterprise (organization).

Thus, the processes of labor intellectualization allow to deal with important social issues, enhance the quality of life, provide an opportunity for self-realization and creativity, self-development by way of participation in scientific research and innovative processes, creation and use of intellectual products.⁵

Digitalization is universal in the 21st century, it is everywhere and because of that one should take into account that the main elements on which efficient digital economy is based are information and knowledge. The main features of such economy are continuous development, changes, increase of flexibility, adaptability, sharing information and bringing operations into life in real time, self-training digital “smart” society.⁶ The world practice confirms that it is intellectual economy that becomes a power impulse for acceleration of technological development, increase of the scientific content and competitiveness of products, helps to develop innovative activities. The above said allows to come to the conclusion that it is necessary to create a socioeconomic model for the state development, in which an individual will become the main factor of economic growth.

The statistics shows that the share of the intangible assets in the cost of the companies – world leaders increases rapidly: from c 17% in 1975 up to 81% by 2010; and already in 2018 the cost of the intangible assets in world economy for the first time exceeded USD 50 trillion (according to Brand Finance), i. e. there is a fast-going process of intellectual economy’s formation, development of the market of intellectual property which is affecting technological and socioeconomic processes more and more.⁷ It should be mentioned that the intangible assets having no physical form are extremely valuable: according to the international agency Global Intangible Finance Tracker, the cost of the intangible assets in the world increased from USD 6 trillion up to USD 57 trillion from 1996 to 2022, and that amounted to 55% of the global GDP. Given that, the cost peak was reached in 2021 – USD 76 trillion, and the revenues for the use amounted to nearly USD 400 billion. For comparison: the tangible assets in 1996 amounted to 26.1% of the global GDP, and to 66.6% in 2021, i. e. the cost of the intangible assets in the world has come close to the cost of the tangible assets and will exceed them in future. Hence, one can come to the conclusion that the tangible resources affect the development of global economy less and less, and intelligence on the contrary is moving to the first place.

The transfer to the new intellectual economy implies the growth of, first of all, the intellectual component of the

¹ Word development report 2019. The changing nature of work. Washington, D. C. : World Bank, 2019.

² *Нехорошева Л. Н.* Формирование системы управления интеллектуальной собственностью как стратегическим ресурсом экономического развития и обеспечения национальной безопасности: перспективные направления, обучение специалистов новым компетенциям // Интеллектуальная собственность в современном мире: вызовы времени и перспективы развития : материалы Междунар. науч.-практ. конф. : в 2 ч. Минск, 2021. Ч. 2. С. 26–41.

³ Ibid.

⁴ *Стома Н. В.* Интеллектуализация производства как драйвер цифровой трансформации экономики Республики Беларусь // Интеллектуальная собственность в современном мире: вызовы времени и перспективы развития : материалы Междунар. науч.-практ. конф. : в 2 ч. Минск, 2021. Ч. 2. С. 172–178.

⁵ *Нехорошева Л. Н.* Op. cit.

⁶ *Стома Н. В.* Op. cit.

⁷ *Нехорошева Л. Н.* Op. cit.

country. There is such a concept in modern economics as the “intellectual capital”. It means potential (that may bring results in future) and already being capitalized (that have already materialized in monetary or other form) knowledge and opportunities expressed in the results of intellectual activities.¹

The scientific and technological achievements in the form of new knowledge, developments, technologies represent the main potential of the innovative model of the society’s development, production of competitive products, their promotion on traditional and new markets, provision of the qualitative growth of national economy.

The use of the leading scientific achievements in production of goods and provision of services is an important condition for development of enterprises and their strong competitive position. The increase of products’ competitiveness depends to a considerable extent on the use of respective intellectual resources. The intellectual property (IP) from this point of view is seen as one of the most important resources together with financial, personnel and material resources. To put it differently, it becomes one of the components of the scientific potential of the country.

The most significant indicator of the scientific and technical, and innovative development of the country is the GDP scientific content and research intensity (the share of expenses for R&D in relation to GDP). The research shows that in case of this indicator being less than 0.4%, science can only perform the sociocultural function, and a more significant impact of R&D on the socioeconomic development of the country is witnessed in case of the GDP scientific content and research intensity exceeding 1%.

Let’s mention for comparison that expenses of the leading EU countries for research and development (R&D) amount to 2–3% of GDP, 2.7% in the United States, 2.19% in China and increase up to 4.5–5% of GDP in such countries as South Korea and Israel. At the same time, if we examine the dynamics for 2010–2018, there is an annual increase of this indicator by 0.1–0.2% in case of most countries (e. g., Norway, Poland, Germany, Greece), and there is a decrease by 0.05–0.12% on the contrary in some countries (Canada, Australia, Ireland). This indicator in the Republic of Belarus either decreases or increases within 0.01–0.08% as in case of Spain, Latvia, France.² The dynamics of the GDP growth and R&D expenses in the Republic of Belarus is presented in Figure 1.

As one can see in this Figure, there is a clear-cut correlation: the more the increase of investments in science, the more the GDP growth in the country, i. e. it is impossible to deceive the laws of economy, if you want to have results, you have to invest in resources.

The global potential of IP as well as global trading in its objects are concentrated in a rather limited circle of developed countries. Thus, the share of OECD amounts to over 90% in the world trade in the results of intellectual activities, and the share of the rest more than 150 countries amounts to about 10%, with more than 100 of them practically not taking part in the international exchange of licenses, consequently they do not use the most valuable creative

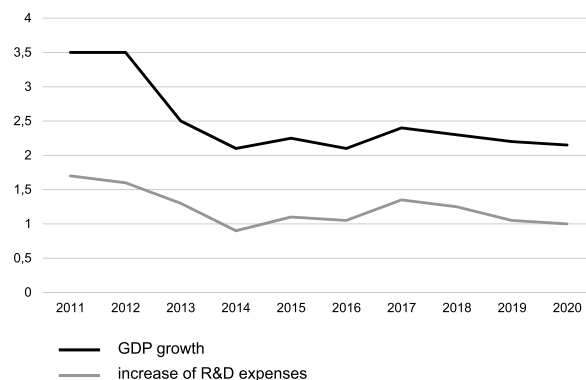


Figure 1. Dynamics of the GDP growth and R&D expenses in the Republic of Belarus in 2011–2020

achievements to enhance their standard of living and for solution of socioeconomic tasks.³

Innovative products amount to about 33–35% of the annual production of organizations in developed countries at the expense of a different attitude to legal registration of their rights and considerably higher level of management of enterprise’s assets basing on the principles of careful registration and account, evaluation, protection and implementation of the IP objects in production or other activities. Thus, for example, the cost of the fixed capital of such companies as Microsoft, IBM amounts on the average to about 14% of their market value, consequently, the rest 86% are determined as the cost of knowledge accumulated by the companies, including the cost of the intellectual property. As for the science-based and high-tech industries, intangible assets, IP amount to 50–70% of all their assets. The cost of the IP objects in research institutions and design bureaus is three times higher than the cost of their other assets.

According to the new report by Brand Finance, the leading consulting company specializing in evaluating brands, the cost of the Amazon brand in the beginning of 2023 amounted to USD 299.3 billion, Apple was the second with the cost of USD 297.5 billion, Google was ranked the third with the cost of USD 281.4 billion, Microsoft the fourth – USD 191.6 billion. And the cost of the Tesla brand increased by 44% during the year and amounted to USD 66.2 billion. According to Brand Finance, in 2022, Apple Inc. became the world leader in the amount of intangible assets, their cost amounts to USD 2.297 trillion, and the cost of Microsoft Corp. intangible assets is evaluated as USD 1.586 trillion.⁴

This information allows to confidently come to the conclusion that the cost of the intangible assets in the above mentioned companies exceeded the cost of the tangible assets by the order of magnitude and long ago, and the basic price of these companies is the cost of developments, technologies, business models, patents and knowhow, i. e. their intellectual component.

¹ Коржак А. В. Анализ интеллектуального капитала Республики Беларусь // Вестник Витебского гос. технол. ун-та. 2022. № 1 (42). С. 170–180.

² Коржак А. В. Оп. cit.

³ Оморов П. О., Оморов Н. П. Интеллектуальная собственность в области науки и техники и перспективы развития инновационной деятельности в Кыргызской Республике в условиях «экономики знаний» // Известия Нац. акад. наук Кыргызской Республики. 2013. № 4. С. 39–46.

⁴ Brand Finance опубликовала рейтинг самых дорогих брендов мира // Коммерсантъ. URL: <https://www.kommersant.ru/doc/5182157?ysclid=1ha4wk1mhl119297611> (accessed: 30.04.2023).

One of the indicators of efficiency of the intangible assets' use is export of services in the field of payments for the use of rights to the objects of intellectual property.

The biggest in the world exporter of intellectual property is the United States where the revenues for the use of the objects of intellectual property in 2021 amounted to USD 124.614 billion, as one can see in Figure 2, the Swiss revenues amounted to USD 30.709 billion, while the Russian Federation got USD 1.435 billion, i. e. 20 times less than Switzerland.

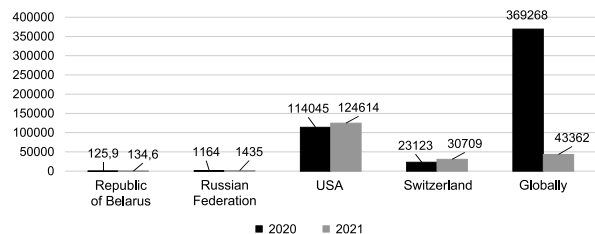


Figure 2. Indicator of payments for the use of intellectual property (USD, mln)

If we compare this data with the sizes of economies, the picture somewhat changes as one can see in Figure 3. Switzerland takes the first place, and Belarus and Russia, alas, even fall short of the average global indicator.

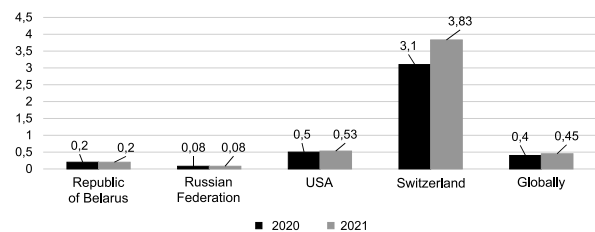


Figure 3. Percentage of payments for the use of intellectual property in relation to GDP

Starting from 2012, the amount of export from the Republic of Belarus in the field of payments for the use of IP has been annually demonstrating growth by 30 percent on the average (according to the Belstat – the National Statistical Committee of the Republic of Belarus – data) as presented in Table 1, and exceeded USD 134 mln in 2021. We have goods to trade, our developments are in demand on the international market of intellectual property, though we have a lot of growing up to do to reach the US level.

Table 1

Indicators of export in the field of services for the use of intellectual property in the Republic of Belarus, 2017–2021 (USD, mln)

2017	2018	2019	2020	2021
32.3	65.7	100.4	125.0	134.6

As one can see from Table 2, the state of affairs in the computer services is much better. Considerable material assets are not expected in this sector originally, and all products are actually the results of intellectual activities. The export in this field exceeded USD 3 billion in 2021, compare it with the food export of the Republic of Belarus during the same period, which amounted to USD 7 billion.

Table 2

Indicators of export in the field of computer services in the Republic of Belarus, 2017–2021 (USD, mln)

2017	2018	2019	2020	2021
1,203.1	1,585.6	2,118.8	2,524.6	3,019.9

Taking into account the IP big economic effect, the state takes various measures to preserve, support and increase its intellectual potential, including by creating the effective infrastructure and mechanisms.

The Republic of Belarus is a country that has chosen the intellectual way of development as the strategic focus in its regulatory documents. Thus, The Science and Technologies: 2018–2040 Strategy sets forth the key features of the new intellectual economy, the main areas of focus of the state policy in science and innovative activities, the tools for stimulating scientific and technological development of national economy for the period up to 2040 as well as expected results from the Strategy's¹ bringing into life, which will allow the country to attain the world level in competitiveness in a number of focal areas basing on the development of the IT-technologies, intellectualization and digital industrialization.²

And here the role of intelligence and intellectual property is especially big, the new world and new economy are built on intellectual developments and technologies. And if in the past Nathan Rothschild said, “Who owns the information, he owns the world,” and we respectively built the information society, this saying could sound today as follows: who owns the technologies, he owns the world. And it means that the transfer to the new intellectual economy is a fairly real basis for building a new socioeconomic formation.

¹ Стратегия «Наука и технологии: 2018–2040» / НАН Беларуси. URL: https://nasb.gov.by/congress2/strategy_2018-2040.pdf (accessed: 30.04.2023).

² Годовой отчет Национального центра интеллектуальной собственности за 2022 г. Минск : Нац. центр интеллектуальной собственности, 2023.