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INFORMATIZATION AS A FACTOR OF DEVELOPMENT OF MODERN ECONOMICS AND ENSURING COMPETITIVENESS

ИНФОРМАТИЗАЦИЯ КАК ФАКТОР РАЗВИТИЯ СОВРЕМЕННОЙ ЭКОНОМИКИ И ОБЕСПЕЧЕНИЯ КОНКУРЕНТОСПОСОБНОСТИ

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ABSTRACT

INFORMATIZATION, INFORMATION SOCIETY, INFORMATION COMMUNICATION TECHNOLOGIES, INFORMATION INFRASTRUCTURE, KNOWLEDGE ECONOMY

АННОТАЦИЯ

ИНФОРМАТИЗАЦИЯ, ИНФОРМАЦИОННОЕ ОБЩЕСТВО, ИНФОРМАЦИОННО-КОММУНИКАЦИОННЫЕ ТЕХНОЛОГИИ, ИНФОРМАЦИОННАЯ ИНФРАСТРУКТУРА, ЭКОНОМИКА ЗНАНИЙ

Today it is customary to talk about the formation of a new type of economy - an economy based on information. M. Castells in his writings calls such an economy informational and global. It is informational since the productivity and competitiveness of factors or agents in this economy depend, first of all, on their ability to generate, process and efficiently use knowledge-based information. It is global because the main types of economic activity are organized on a global scale, directly or using an extensive network connecting economic agents. In Belarus, the development of informatization is a prerequisite for maintaining competitiveness.

Сегодня принято говорить о формировании нового типа экономики – экономики, основанной на информации. М. Кастельс в своих трудах называет такую экономику информационной и глобальной. Информационной – так как производительность и конкурентоспособность факторов или агентов в этой экономике зависят, в первую очередь, от их способности генерировать, обрабатывать и эффективно использовать информацию, основанную на знаниях. Глобальная – потому что основные виды экономической деятельности организуются в глобальном масштабе, непосредственно или с использованием разветвленной сети, связывающей экономических агентов. В Республике Бела-

руссь развитие информатизации является необходимым условием сохранения конкурентоспособности.

Evaluation of information as a new factor of production and resource began in the mid-1950s, and from the second half of the 1970s many scientists have started talking about the formation of an "informational" society. Just as at one time capital replaced land as a resource that attracted the greatest demand with limited supply, today knowledge, being a rare production factor, replaces capital. Moreover, the limited and rarity of knowledge is the limited and rarity of a completely different order than all previously known resources. Labor was also influenced by the widespread and widespread use of information, the development of means of processing it. This is reflected in a decrease in employment in industry and the primary sector, which was offset by an increase in employment in the services sector. A situation arises when a person increasingly appears today not as a subject of labor activity, but as a carrier of unique capabilities and abilities.

Under these conditions, as never before, non-traditional forms of production that do not require the concentration of significant capital become the most advanced and achieve the greatest success. Fifteen of the twenty richest people in the United States are companies that have emerged over the past two decades (Microsoft, Metromedia, Intel, Oracle, Viacom, New World Communications, etc.) [1]. In a broad sense, informatization can be defined as the process of using information and communication technologies (ICT) and systems in all areas of social, economic, political and cultural life of society with the goal of the most efficient use of information and knowledge in the direction of civilization's movement towards the information society. This definition focuses specifically on the use of information for the transition to the information society [2].

An analysis of the development of the ICT sector in Belarus shows that the scientific, technical, industrial and intellectual capabilities available in our country are sufficient to form an innovative economic system. In general, the picture of informatization in Belarus is as follows. The basic complex of electronic government has been practically created, which includes such components as a nationwide automated information system, an interdepartmental electronic document management system, a state system for managing public keys for verifying electronic digital signatures, a single settlement information space, and others.

According to the estimates of the Commission of the International Telecommunication Union (ITU) on the development of broadband access, the Republic of Belarus currently occupies the 25th position in the number of fixed broadband subscribers (28.8 per 100 people) and the 23rd position in the number of households with Internet access (57.1 per 100 households) among 195 countries receiving the survey.

Belarus rose to 38th place in the UN ranking on the level of development of e-government

(United Nations E-Government Survey 2018). The country moved 11 lines up compared to 2016 results [3, 4].

The ranking includes 193 countries. For the first time in its history, Belarus has moved to a group of countries (top 40) with a very high index of e-government development (Very-High-EGDI). According to the rating compilers, this may be due to the implementation of the national sustainable development strategy for the period until 2030, which includes several initiatives related to the development of ICT in various sectors of the economy [5].

All 40 countries except two from the very high EGDI group are high-income countries; Belarus and Kazakhstan are above average income countries. As previous UN studies (in 2012, 2014 and 2016) show, per capita income, reflecting the country's economic potential, has a strong influence on the development of national e-government. The composite index (E-Government Development Index) of Belarus in the ranking was 0.7641. The most highly rated human capital index of Belarus is 0.8681. The level of development of online services is 0.7361, the index of ICT infrastructure is 0.6881. Belarus has also made significant progress in the ranking of countries by the E-Participation Index - from 76th to 33rd place. This indicator reflects the development of active communication services between citizens and the state [3].

The Information and Communication Technology (ICT) Development Index 2017 was published as part of the annual report of the International Telecommunication Union (ITU) "Measuring the information society". Country profiles were compiled for 176 countries. In 2017, Belarus took 32nd place in the ITU Information and Communication Technology Development Index with an index of 7.55 points. Compared to the previous year, the position of Belarus has not changed, but the value of the index improved by 3.57 %. This allows us to say that our country is purposefully moving towards the goal set for it by the National Strategy for Sustainable Social and Economic Development of the Republic of Belarus for the period until 2030 – to enter the top 30 countries in terms of ICT development in the ITU ICT Development Index [6].

At the same time, according to the National Statistics Committee, the coefficient of inventive activity in the country is declining: in 2015 – 1.8, and in 2017 – 1.6. The share of innovative goods and services new to the domestic market of Belarus in 2017 amounted to 44.6 %. At the same time, the share of an innovative product, new to the world market, of domestic industrial enterprises in the same year was 0.6 %, the contribution of exports of medium- and high-tech products to the trade balance was 2.2 %, and the indicator of the export of high-tech services was 25.73 %. It seems that one of the reasons for the decline in innovation activity is insufficient R&D funding – in 2017 it was estimated at 0.69 % of GDP [7].

In accordance with the Belarus 2020 Concept for the Development of Science and Economics, in order to develop fundamentally new sectors of the economy for the republic, by 2020 it is necessary to increase the share of innovative products to 22–23 %, the level of domestic R&D expenditures, mainly from extrabudgetary funds, to 2.5–2.9 % of GDP [8]. But

only raising funding does not solve the problem of stimulating the creative activity of the scientific and industrial sphere. The current innovative passivity of Belarus is not so much scientific and technical as organizational and economic in nature and does not indicate the intellectual weakness of domestic specialists, but the lack of a mechanism for converting ideas and innovative solutions into market products.

REFERENCE

1. Kozlov, V. A. Pekka Himanen and Manuel Castells. The Information Society and the Welfare State / Summary of the expert of the Center for Strategic Research Foundation, Doctor of Engineering V.A. Kozlova [Electronic resource]. - Access mode: <http://www.kreml.org/state/7028373/>. - Date of access: 08/20/2019.
2. Lemeshevsky, I. M. Macroeconomics: world experience and Belarusian practice: textbook, manual / I. M. Lemeshevsky. - 3rd ed. - Minsk: FUAinform, 2017. - 384 p.
3. The UN Global E-Government Development Index / Electronic Government Development Index. - 2018. - Access mode: <https://unpan3.un.org/egovkb/Reports/UN-E-Government-Survey-2017>. - Access date: 08/22/2019.
4. United Nations E-Government Survey 2018 / Level of development of electronic government [Electronic resource].- 2018. - Access mode: <https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2018>. - Access date: 08/22/2019.
5. The state program for the development of the digital economy and the information society for 2016-2020: approved. Decree of the Council of Ministers of the Republic of Belarus dated March 23, 2016 No. 235 // ConsultantPlus: Belarus / LLC "YurSpektr". - Minsk, 2016.
6. ICT Development Index (IDI) / Information and Communication Technology (ICT) Development Index [Electronic resource]. - 2018. - Access mode: https://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2017/MISR2017_Volume1.pdf. - Access date: 08/22/2019.
7. The information society in the Republic of Belarus: stat. Sat [Electronic resource]. - Access mode: http://www.belstat.gov.by/ofitsialnaya-statistika/publications/izdania/public_compilation/index_7864/. - Access date: 02/15/2019.
8. State Committee for Science and Technology. International cooperation [Electronic resource]. - 2018. - Access mode: <http://gknt.org.by/opencms/opencms/ru/foreignrel/>. - Date of access: 08/10/2019.