**NEW TRENDS OF BIOECONOMIC DEVELOPMENT THROUGH COVID-PRISM**

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Bioeconomics is an economy based on the use of biotechnology that uses renewable biological raw materials. This is a high-tech part of the economy, which provides opportunities to increase energy efficiency, waste reuse, develop renewable energy based on biomass, green the industrial sector, increase the sustainability of agriculture, produce new food, develop medical technology.

Until 2019, countries, society and business focused financial and institutional efforts on socio-oriented and environmental issues. It would seem that this vector will become dominant in the coming years. The volume of the bioeconomy by 2025 was to be almost 8 trillion dollars [1]. But two global circumstances in the first months of 2020 have challenged all the usual scientific and social debates of today: the coronavirus pandemic and the collapse of oil prices are two new markers of a new reality that call into question all previous predictions and assumptions.

The breakdown of global trends that occurred in early 2020 set new colors and trends in the development of the bioeconomy and, accordingly, there was a rethinking of state participation in the stimulating processes of its ontogenesis:

1. New models of industrial and food consumption.

2. According to the most optimistic forecasts, the economic imbalance and a sharp increase in the number of unemployed will continue in the coming years. The recovery of the world economy will be uneven both in countries and in individual sectors. Demand for the bioeconomy will depend on the speed and scale of these recovery processes.

3. Transformations of the energy sector are inevitable under the influence of fluctuations in oil prices and climate policies. Some of them, primarily European, have almost completed the transition to a low-carbon economy. In other countries, including Ukraine, traditional energy sources still dominate. Whether biofuels will become a key source of energy, at least in the horizon of 2025, especially given the growing focus of the agricultural sector on meeting the priority food needs of the population, is a big question.

4. Transition from socio-oriented and environmental priorities to the principles of rationality, efficiency and pragmatism on the part of both the consumer and the producer in the short term. However, in the medium term of 5-7 years, humanity, especially the younger generation, will return to the realization of the need to maintain the trend of integration with nature, but at a new level.

5. The transition from "green", "blue" and "smart" to "efficient" – the main vector of bioeconomy development for the next decade. The steady growth of biotechnology-related segments (both intermediate and final) will have to withstand the new competitive environment [2]. If at the end of 2019 the main slogan of many companies was not profit, but transparency of business, social orientation and responsible business, then being on the verge of "extinction", business can return to the origins of wild capitalism, when the key factors of competitiveness were price, profit and quality products.

6. Increasing the cost of health and a healthy lifestyle creates significant niches for the bioeconomy - Life Science, agro-industrial complex, pharmaceutical industry. The global trend of "human enhancement", which for many years has been a powerful driver of biotechnology development, is likely to make a pit stop on "human survival".

7. The slowdown in bio- and eco-infrastructure projects will be caused by the difficulty of obtaining money at low interest rates and may lead to the accumulation of negative infrastructure effects for the bioeconomy. Unfinished "long-term construction" - biomass and waste processing plants, the introduction of digital technologies, a network of power stations for electric vehicles - risk being overlooked: the future, production chains and demand will no longer be the same after the crisis. Without a well-established and efficient infrastructure, bioeconomic growth is impossible.

8. Global changes in logistics and production chains. Many participants in bioeconomic transformation have long been embedded in existing chains, often acting as subversive innovators or relying on demand from environmentally responsible consumers. Without additional incentives, the bioeconomy, without passing a kind of "break-even point" and without additional incentives, can roll back to the very beginnings of its development.

Such conditions are the foundation for new standards and guidelines for the bioeconomy as an integral part and a necessary condition for new value chains in the world.

9. Temporary restoration of biodiversity is perhaps one of the most positive effects that the bioeconomy will have from the crisis. The cessation of many industries that significantly pollute nature, the self-isolation of millions of people is already manifested in the fact that nature is beginning to recover. But the damage caused by humanity is so great that without special efforts and investment, full recovery is impossible.

10. Total digitalization has connected not only the regions within the states, but also the countries into a single system. In a number of sectors of the bioeconomy, digital ecosystems already have significant positions, for example, the concept of "precision and smart agriculture" can reduce production costs by at least 10-15% [3]. Those countries and sectors of the economy that have already invested in technological modernization will complete it at a faster pace.

11. The slowdown in science and technology caused by the global crisis may affect the bioeconomy as an ecosystem to a lesser extent. For biotechnology experiments, the coming years will be under increased scrutiny from society and the state, which have seen the potential consequences of biological warfare or biohacker attacks.

However, the world's inability to quickly find a scientific and technological response to the pandemic will lead states and companies to understand the need to increase investment in basic science, including biotechnology, breeding and genetic research, the use of artificial intelligence to solve complex problems on big data.

12. National priorities of human health and safety will be expanded and manifested not only in the application of financial mechanisms to support the population, but also in the larger transformational functions of the state as an institution.

13. The slowdown in the transition to a low-carbon and cyclical economy is due to low oil prices and the pandemic, which negatively affects the basic values of the circular economy – a ban on disposable plastic, separate garbage collection, etc. [4]. But the orientation of many countries to self-sufficiency can push business and society to the rational use of certain technologies and products and the creation of closed systems, if not at the level of the whole country, then certainly – a single household.

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