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PROSPECTS FOR THE DEVELOPMENT OF THE SMART ECONOMY IN UKRAINE

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The development of smart economy is an actual trend of the modern world economy, but in every country it is always the result of a whole complex of prerequisites. The country's progress towards a smart economy begins with the creation of smart cities, their successful implementation and the dissemination of their experience to the entire national economy.

The creation and effective development of smart cities can become an important impulse, an engine for the further development of the entire economy of the country. Therefore, all kinds of support are needed for the cities of Ukraine on the way to the formation of a smart economy. We believe that such a course is possible not only for large regional centers, but also for cities of regional and local significance. As world experience shows, there are many examples of successful smart development in medium and small cities.

Solving the problems of the formation of a smart economy in the country should be done through the creation of a theoretical concept and the development of a concrete mechanism for the effective implementation of all the principles and components of a smart economy at different levels. The main problems in the conditions of martial law and post-war revival are the definition of clear tools for building a smart economy based on the systematization of the most successful world experience in creating smart cities, identifying the factors of their success and determining the successive steps of their implementation in modern Ukrainian realities [1].

Based on the generalization of various ratings and approaches, it is possible to present a system of key elements that form a smart city. In our opinion, such a system should consist of the following directions: Ecology, Economy and Infrastructure, Society, Management. Each of these directions is revealed by the following components:

Ecology: energy consumption; water, air quality control; waste; natural environment and green areas.

Economy and Infrastructure: business support; ICT infrastructure; transport; water supply and drainage; energy supply; construction; city planning; security.

Society: education; health care; employment; innovations; social integration; culture.

Management: public sector; Big Data; creation of decision-making centers.

Each of the components can include many new sub-elements, which will be characterized by their indicators. Modern ICTs give any city a huge space for development and advancement on the path of a smart economy.

The above list of indicators is far from exhaustive, it simply outlines the main directions in which a smart city is implemented. It can and even should expand and be filled with new directions and indicators. If we talk about the assessment of the success of a smart city, it should certainly be supplemented with economic indicators: regarding the city's income, expenditures for educational, cultural, technological purposes, indicators of social differentiation, etc. This array of data collectively proves the effectiveness of implementing the ideas of a smart city.

In the vast majority of cities (in the world), the creation and effective development of smart cities takes place through the gradual introduction of smart technologies into already formed urban systems. Each city independently chooses its priorities: ensuring safety, improving the operation of city transport, energy efficiency, increasing public activity, improving the health care system, etc. At the same time, the possibility of realizing the idea of a smart city is created only if there is a developed smart infrastructure [2].

However, there is another possibility of creating a smart city — it is to create it from scratch, by building a city from the very beginning based on the concept of a smart city. In our opinion, this approach should be fully implemented in Ukraine. Unfortunately, the consequence of military aggression is not just destruction, but sometimes almost complete destruction of cities: Volnovakha, Popasna and many others. The revival of such cities must take place on a fundamentally new basis, with modern systems of housing and communal services, transport, medical care, and so on. It is clear that this requires a lot of money, because modern smart infrastructure is quite expensive. Such a task is beyond the power of our country, which is already suffering huge losses and economic losses [3].

The real way out in this situation is the help of foreign partners. Many countries, regions and individual cities have already expressed their desire to help rebuild our cities. Therefore, it is very important that local authorities have ready-made projects, the implementation of which will become possible with the help of various instruments of public-private partnership, crowdfunding, funds from domestic and international donors.

In the conditions of huge losses of the Ukrainian economy as a result of military aggression, one of the most important tasks is to ensure the restoration of the economy on a fundamentally new basis, which involves:

- recovery of the economy: first of all, due to the support of modern high-tech and export industries with a high degree of processing (unlike heavy industry, they do not require large investments and a long development time). Create all kinds of opportunities for the development of small and medium-sized businesses (tax benefits for startups, attraction of funds from foreign investors and funds). It is the development of the IT sector that will contribute to the growth of the economy, the provision of employment, and the wide implementation of the latest products and technologies in the processes of creating and managing cities;
- reconstruction of infrastructural facilities on the foundations capable of ensuring a new quality of economic life (high-tech, ecological, socially oriented) and residential premises in a single ecosystem, the functioning and life of which is based on smart technologies and sustainable development;
- restoration of human potential by implementing a comprehensive state policy regarding: 1) systematic support of small and medium-sized businesses (return of lost business through targeted grants and credit holidays, assistance to new businesses); 2) development of a system of measures to interest the population in returning to their hometowns, which will include measures for employment in public works, etc., creation of favorable conditions for participation in the reconstruction of the city, residential and social infrastructure; 3) targeted assistance to those who lost their housing due to compensation based on the use of foreign grants, preferential long-term loans with the possibility of repayment from future reparations received; 4) special attention to the restoration of educational institutions of all levels, healthcare and culture; moreover, this recovery should take place on a fundamentally new technical and technological basis, taking into account the aspects of security, advanced digitalization, and sustainable development;
- business support and activities for disposal and reuse of construction waste. One of the urgent problems of Ukraine is the huge number of destroyed residential and industrial facilities. Most objects cannot be

restored. Disposal of a huge amount of construction waste is a serious problem, as it requires significant funds, appropriate equipment, and human resources. At the same time, there are already projects on processing construction waste into new construction materials. It seems that such projects need special support, as they will allow not only to solve the problems of disposal and production of construction materials, but also to employ a large part of the population, which is extremely important in the conditions of growing unemployment;

reconstruction of destroyed cities immediately on the basis of a smart economy. Reconstruction of residential buildings taking into account modern environmental requirements for materials, space planning. The main conclusion of the war is the need to build shelters, which must be laid from the very beginning during the construction of various objects, as well as individual storage facilities (at bus stops, transport hubs, places of large crowds – shopping malls, educational and medical institutions, state administration bodies, etc.). One of the most important elements of the new architecture should be a serious organization of counter-security, which requires the creation of a powerful information data center, a huge number of video surveillance cameras and the organization of rapid response to various threats.

Therefore, the countries with successful smart cities achieve the greatest success in the development of the smart economy. The example of such cities, in which a significant part of the country's population lives, becomes an important impetus for the successful sustainable development of the country based on technological and ecological imperatives and deserves further development and research of this topic.

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