

**DOI: 10.52363/passa-2024.2-17**

**UDC: 352 (477): 322**

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## **PROSPECTS FOR IMPROVING PUBLIC ADMINISTRATION MECHANISMS IN THE FIELD OF DIGITALIZATION AND INNOVATION**

*The prospects for ensuring the development of digitalization and the use of artificial intelligence technologies, which occur as a result of significant quantitative and qualitative changes in the functioning of information and socio-economic systems, are outlined. The annihilation and institutional impact in the development of public administration in the field of digitalization and innovation is argued. The prospects for improving the legal and organizational mechanisms of public administration in the field of the use of artificial intelligence technologies are determined.*

*Keywords: public administration, mechanisms of public administration, digitalization, digitalization technologies, digital economy, innovative activity, innovation, institutional environment, artificial intelligence.*

Problem setting. Today, the whole world is actively implementing digital technologies that should ensure innovative development and digital transformation in the public and private sectors. At the same time, the uncertainty of the application of artificial intelligence technologies adds special complexity, because this “request-response system” is only gaining momentum. Therefore, we need to talk about improving the risk assessment system for the use of digital technologies and artificial intelligence in public administration, which is directly related to the state priorities of Ukraine in the field of security, economy and social development.

Recent research and publications analysis. Organizational, legal, economic and other aspects of the formation and implementation of state policy in the conditions of digitalization were studied in the scientific works of foreign and domestic scientists L. Analai, L. Antonova, M. Kastels, L. Gren, O. Gromyko, A. Davidson, O. Karpenko, S. Kvitky, T. Mamotova, Yu. Mykytyuk, N. Nasira, V. Onoprienko, A. Pomaza-Ponomarenko, V. Togobytska, Yu. Ulyanchenko, E. Shchepansky, and others. [2–6]. Without belittling the scientific achievements of researchers, we note that the features of the annihilating impact of digitization and the innovative environment, as well as the role of the state in this context, require a comprehensive consideration.

Paper objective. The purpose of the article is to determine the imperative vectors for the development of public management mechanisms in the field of digitization and innovation.

Paper main body. It should be noted that in Ukraine, digital transformation in the public administration and economy is also a pressing issue, as it is designed to ensure improvements in these important areas of public life. In fact, this is the purpose of digital transformation – to ensure quantitative and qualitative changes. Currently, Ukraine lacks the necessary legislative support for digital transformation and the use of artificial intelligence. One of the key documents on which this transformation is based is the “Roadmap for the Regulation of Artificial Intelligence” (2023), developed by the Ministry of Digital Transformation of Ukraine [1]. The Roadmap is a step-by-step plan for the implementation of national legislation on the

development of artificial intelligence (hereinafter referred to as AI), which corresponds to the main provisions of the world's first law on AI (EU AI Act). This European law includes the integration of the HUDERIA methodology.

It is worth noting that the “Roadmap for the Regulation of Artificial Intelligence” is designed to implement the HUDERIA methodology, but in the economic sphere in general and to improve the activities of the business environment. At the same time, this methodology can also be implemented within the public sector. This hypothesis is expressed in view of the fact that the HUDERIA methodology provides for a unified approach to identifying, analyzing and assessing the risks of the impact of AI on human rights, democracy and the rule of law. It can be further noted that the adaptation of the HUDERIA methodology in Ukraine meets state priorities in ensuring transparency, accountability and ethics of the use of new technologies in public administration (see the order of the Ministry of Education and Science of Ukraine “On Amendments to the Order of the Ministry of Education and Science of Ukraine dated 07.09.2023 No. 1104” No. 1202 dated 04.10.2023) [2].

In our opinion, the use of the HUDERIA methodology in the domestic arena involves the implementation of a number of scientific approaches: institutional, risk-based, and others. Their application in public administration and legal regulation of AI will allow Ukraine to prevent possible negative consequences of the implementation of technical solutions, in particular in the context of data security, privacy, and cybersecurity. The project also supports Ukraine's integration into the European legislative space. Given the importance of innovation and digitalization for the economic development and post-war recovery of Ukraine, the implementation of modern mechanisms for regulating AI will contribute to increasing the efficiency of public administration, creating new economic opportunities, and strengthening the legal system.

It should be noted that the “Roadmap for the Regulation of Artificial Intelligence” should be implemented in 2 stages. Stage 1 provides businesses with opportunities and tools to prepare for future regulation, the state with time to understand the market, risks and acquire the actual ability to implement the law (establish a regulator), and citizens with awareness of the topic [1]. According to the wording of the second stage, the implementation of the AI Act is planned to begin, which will likely coincide with the receipt of requirements from the EU for its implementation. A gradual implementation is possible with the gradual introduction of the most demanding provisions (bottom up stage 2) [ibid.]. According to the analyzed roadmap, the development and adoption of a number of organizational and legal measures are planned (Fig. 1, 2). The implementation of the roadmap involves adhering to the following principles: service function; balance; partnership and self-regulation; global perspective; product approach [ibid.].

Therefore, the current task of Ukraine is to develop and adopt a law on artificial intelligence, as well as implement state programs, measures, and tools that should be aimed at ensuring the security of the individual, which includes his or her socio-economic and barrier-free development.

It is worth identifying the advantages of the approach to regulating the prospects for the development of artificial intelligence for key stakeholders:

1) for the industry:

- providing time and tools to prepare for future regulation;
- creating an identical legal regime with the EU – simplifying entry into the EU market,

attracting funds, finding partners;

- predictability of regulation here and now – through the publication of the White Paper;  
2) implementing (at the final stage) regulation that offers the highest level in the world of human rights protection from risks and malicious use of AI;

3) maintaining a balance of interests between society and business and fulfilling Ukraine’s future international obligations to the European Union (European integration) and requirements for respecting human rights.

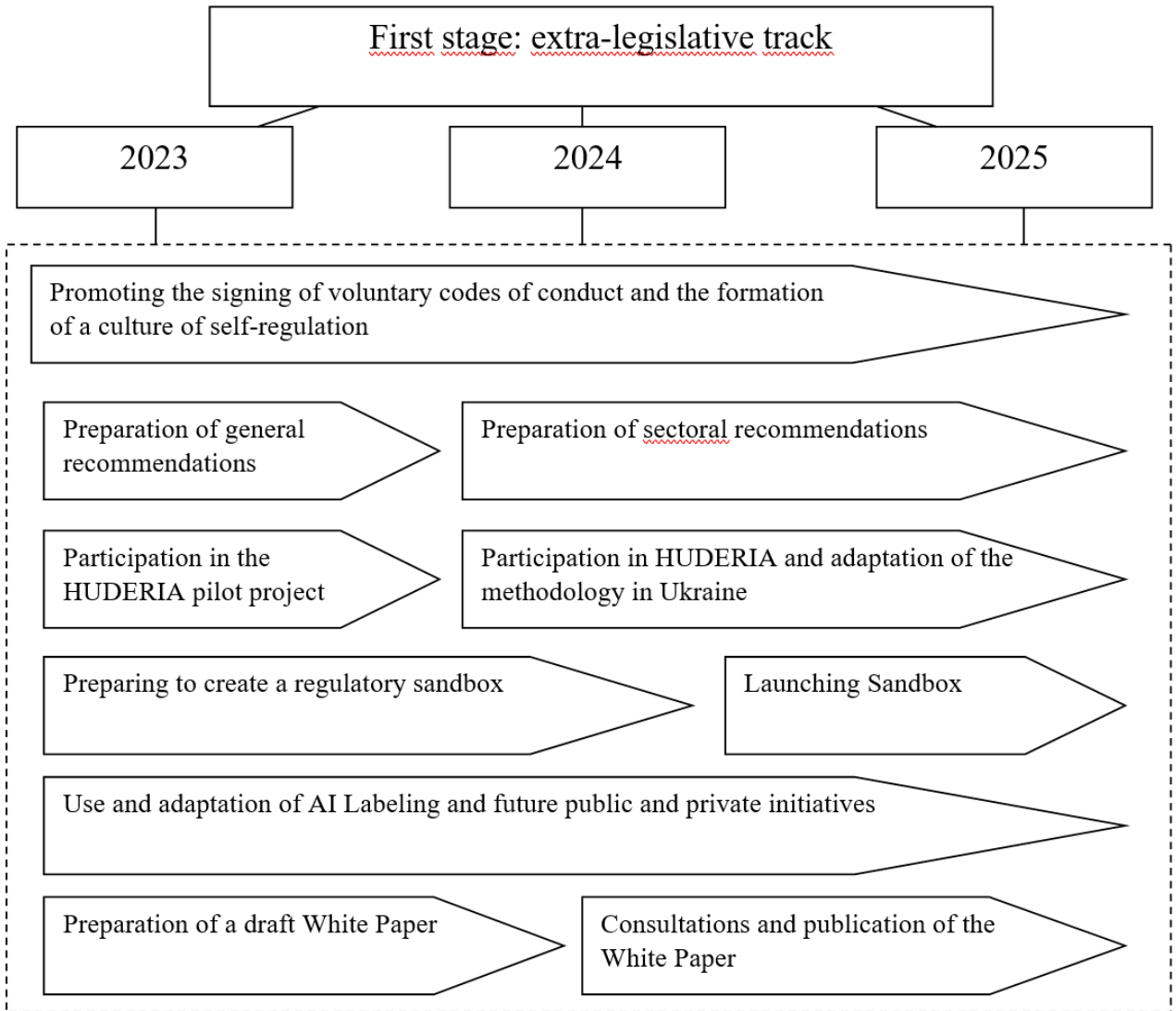


Fig. 1. Organizational and legal measures envisaged in stage 1 of the “Roadmap for the Regulation of Artificial Intelligence”

Source: compiled on the basis of [1]

Therefore, within the framework of stage 1, businesses should be provided with opportunities and tools to prepare for the future regulation of the use of artificial intelligence technologies, and the state should be given time to understand the market, risks, and acquire the actual ability to implement the law on artificial intelligence (creation of a regulator), and citizens should be given awareness of the topic.

The second stage involves the start of the implementation of the AI Act, which will probably coincide with the receipt of requirements from the EU for its implementation. A gradual implementation is possible with the gradual introduction of the most demanding provisions (bottom up stage 2).

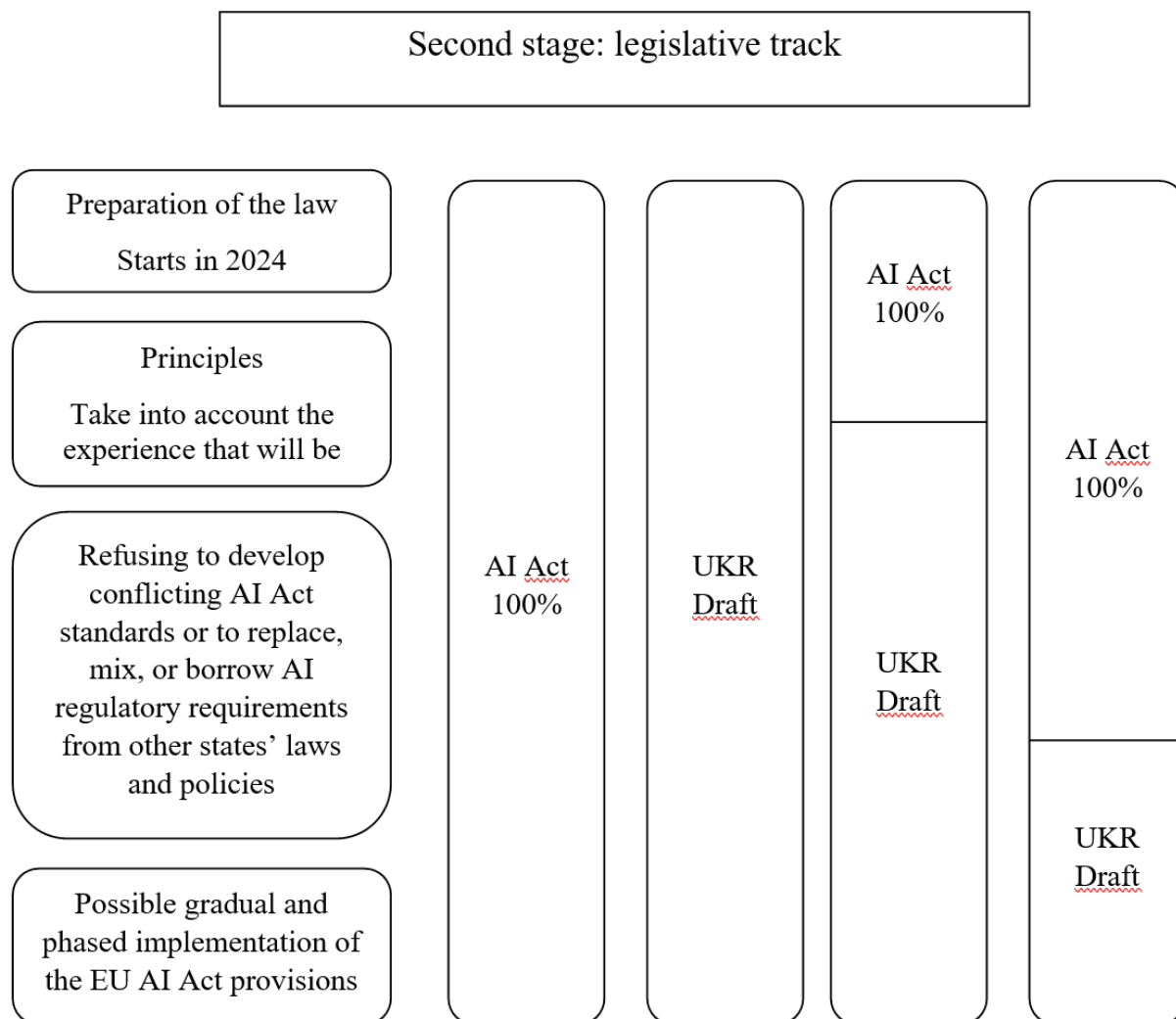


Fig. 2. Organizational and legal measures provided for in stage 2 of the “Roadmap for the Regulation of Artificial Intelligence”

Source: compiled on the basis of [1]

Today, it is necessary to create a model, on the one hand, of anti-crisis management using artificial intelligence, and on the other hand, of strategic modernization and digital transformation of public administration at the regional level. On this basis, we note that further scientific research should be devoted to this direction.

Conclusions of the research. The information infrastructure available in the global society contributes to the development of digitalization, digital transformation and innovation. This infrastructure includes IT infrastructure, telecommunication networks, computing power and the volume of content, creating the basis for the expanded use of IT and the development of innovative activity. The latter is an integral feature of the functioning of the private sector, which acts as a “generator” of ideas for innovative development. It is from this sector that important IT solutions migrate to the public sector, allowing to improve social life in a particular area. It is argued that today a mechanism for the use of artificial intelligence technologies needs to be provided. It is revealed that Ukraine does not have a law on artificial intelligence, but there is a Roadmap (2023). On this basis, it insists on ensuring the transition from informatization to the development of artificial intelligence, characterized by a comprehensive coverage of the business process of innovation and digital transformation of the public administration system.

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