

## EFFICIENCY OF MEANS OF STIMULATING THE DEVELOPMENT OF THE DIGITAL ECONOMY IN UKRAINE AND EUROPEAN COUNTRIES

### A EFICÁCIA DOS MEIOS DE ESTIMULAR O DESENVOLVIMENTO DA ECONOMIA DIGITAL NA UCRÂNIA E NOS PAÍSES EUROPEUS

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## ABSTRACT

**Objective:** The purpose of the study is to study the legal means of stimulating the development of the digital economy in Ukraine and to analyze the relevant experience of the European Union in order to determine ways to improve domestic legislation in this area.



**Methodology:** The work uses a complex of methods, including analysis of Ukraine's current legislation and international acts, comparative legal analysis, system-structural method, logical methods (analysis, synthesis, generalization), dialectical methods, and dogmatic methods.

**Results:** The results of the study demonstrate the existence of certain problems in the implementation of means of stimulating the development of the digital economy in Ukraine, in particular insufficient harmonization of national legislation with European standards, limited access to state support tools for enterprises outside the IT sphere, and a low level of digital literacy of the population.

**Contributions:** The contribution of the study consists in identifying the main problems of implementing means of stimulating the digital economy in Ukraine and formulating proposals for their solution by harmonizing national legislation with European standards, expanding access to state support tools and implementing a comprehensive program to increase the digital literacy of the population.

**Keywords:** Digital economy. Economic stimulation. State aid to economic entities. Foreign investments. Legal regime of Dii City. Digital infrastructure.

## RESUMO

**Objetivo:** O objetivo do estudo é estudar os meios legais de estimular o desenvolvimento da economia digital na Ucrânia e analisar a experiência relevante da União Europeia, a fim de determinar formas de melhorar a legislação nacional nesta área.

**Metodologia:** O trabalho utiliza um complexo de métodos, que inclui a análise da legislação vigente da Ucrânia e dos atos internacionais, análise jurídica comparativa, método estrutural-sistêmico, métodos lógicos (análise, síntese, generalização), métodos dialéticos e dogmáticos.

**Resultados:** Os resultados do estudo demonstram a presença de certos problemas na implementação de meios de estimular o desenvolvimento da economia digital na Ucrânia, em particular a harmonização insuficiente da legislação nacional com as normas europeias, acesso limitado a ferramentas de apoio estatal para empresas fora da esfera das TI, e um baixo nível de alfabetização digital da população.

**Contribuições:** A contribuição deste estudo consiste em identificar os principais problemas de implementação de meios de estímulo à economia digital na Ucrânia e na formulação de propostas para a sua solução através da harmonização da legislação nacional com as normas europeias, da expansão do acesso a ferramentas de apoio estatal e da implementação de um programa abrangente para melhorar o alfabetização digital da população.

**Palavras-chave:** Economia digital. Estímulo económico. Auxílios estatais a entidades económicas. Investimentos estrangeiros. Regime jurídico da cidade de Diiya. Infraestrutura digital.



## INTRODUCTION

The development of the digital economy is one of the key directions in many countries of the world because its effective functioning can ensure sustainable economic growth and increase labor productivity and the international competitiveness of national economies. That is why the study of effective means of stimulating the development of the digital economy is of significant scientific and practical interest.

Analyzing European countries' experience in the mentioned field is particularly relevant for Ukraine. This can be explained by the fact that our state strives to build its own model of digital transformation that meets today's requirements and challenges. An important task is to identify political, institutional, and financial instruments that have demonstrated their effectiveness in European countries and can be adapted to Ukrainian realities.

## DESENVOLVIMENTO

### STATISTIC DATA

In Ukraine, the legal regulation of the digital economy is carried out on the basis of a number of normative legal acts, in particular: the Civil Code of Ukraine (UKRAINE, Code of Ukraine No. 435-IV, 2003), Commercial Code of Ukraine (UKRAINE, Code of Ukraine No. 436-IV, 2003), Laws of Ukraine "On Electronic Documents and Electronic Document Management" (UKRAINE, Law of Ukraine № 851-IV, 2003), "About electronic identification and electronic trust services" (UKRAINE, Law of Ukraine № 2155-VIII, 2017), "On personal data protection" (UKRAINE, Law of Ukraine No. 2297-VI, 2010), etc. Ukraine also joined a number of international acts, such as the UN Convention on the Use of Electronic Messages in International Treaties (UNITED NATIONS, 2005), the EU Directive on Electronic Commerce (EUROPEAN UNION, 2000), the Convention on Cybercrime (COUNCIL OF EUROPE, 2001).

The specified legal acts create a basis for regulating certain segments of the digital economy, in particular, electronic commerce, the use of electronic documents, personal data protection, and the fight against cybercrime. However, the lack of a coherent system of legal support for the functioning of the digital economy in Ukraine necessitates further improvement of legislation in the discussed areas.



According to a study by the World Economic Forum, by 2027, artificial intelligence will create 69 million new jobs, but at the same time, 83 million current positions will become irrelevant (SEVEN..., 2023).

The results of a study conducted by K. Kraus and N. Kraus show that 71% of enterprises believe that the main purpose of investing in automation is to increase operational efficiency. At the same time, 70% of companies seek to improve the effectiveness of their processes, and 60% focus on increasing flexibility. It should be noted that separate studies confirm a high level of return on investment in customer relationship management (CRM) systems of up to 500% (KRAUS; KRAUS, 2022, p.78). Such facts testify to the potential and importance of the use of digital tools in supporting the effective development of the digital economy both in Ukraine and in European countries.

The analysis of official data shows the rapid growth of the IT sector in Ukraine. A significant increase in the number of IT companies was observed between 2020 and 2021: Computer services: 22% growth; information services: 10% growth (VERGUN, 2021).

According to forecasts, the implementation of the "Action City" initiative of the Ministry of Digital Transformation of Ukraine will contribute to the significant growth of the IT sector. It is expected that annual growth rates may double to 40-50%. By 2025, a significant increase in revenues from the IT industry is expected, from the current \$6 billion to \$16.5-\$17 billion. Such development will also lead to the creation of many new jobs, the total number of which may reach 450,000. Moreover, the IT industry can become a significant sector of the economy, contributing to the country's GDP, reaching 10% (now this indicator is about 3.7-4.2%) (MINTSIFRA:...).

European Union Directive IP/10/581, adopted on May 19, 2010, as part of the "Digital Agenda for Europe," set the goal of ensuring that by 2020, 100% of EU citizens have access to broadband Internet with a speed of at least 30 Mbps and 50% of European households have the opportunity to use a speed of at least 100 Mbit/s (UKRAINIAN...).

## CONCEPTUAL BASICS OF THE DIGITAL ECONOMY

The digital economy is a relatively new phenomenon that is gaining more and more importance in today's world. Despite its relevance and practical significance, the definition of this concept remains debatable, and its essential characteristics and



definition do not have a unified interpretation in the scientific environment. Thus, in her concept of the digital economy, N. Deeva emphasizes that the digital economy acts as a complex network phenomenon arising from the interaction and integration of billions of online connections between various entities, such as people, enterprises, devices, data and processes (DEEVA; DELEICHUK, 2018, p. 654). At the same time, G. Karcheva, D. Ogorodnya, and V. Openko claim that this is an innovative, dynamic economy based on the active implementation of innovations and ICT in all spheres of activity, contributing to increased efficiency and competitiveness (KARCHEVA; OGORODNYA; OPENKO, 2017, p.14). S. Kolyadenko defines the digital economy as one based on the production of high-tech electronic goods and services, using electronic commerce for their distribution (KOLYADENKO, 2016, p.106).

At the same time, there is a legal definition of the discussed term. According to the Concept of the Development of the Digital Economy and Society of Ukraine for 2018-2020, approved by the Cabinet of Ministers of Ukraine Order No. 67-r of January 17, 2018, the digital economy means economic activity in which the main means (factors) of production are digital, electronic and virtual data, both numerical and textual (UKRAINE. The Cabinet of Ministers of Ukraine., 2018).

The digital economy is associated with the emergence of new forms of economic relations based on the use of "big data", cloud computing, artificial intelligence, blockchain technology, etc. The listed technologies fundamentally change not only the organization of economic processes, but also social relations, the system of public administration, and even the legal sphere. It is not by chance that the term "digital law" appears in the scientific literature (METHODOLOGY..., p. 4), which reflects the need to regulate new social relations that arise in connection with the digitalization of the economy and other spheres of life.

P. Putsenteilo notes that the key characteristic of the digital economy is the implementation of digital technologies not only in management systems but also in production processes in all spheres of life and economy (PUTSENTEILO, 2018, p. 140). Instead, O. Vinnyk defines the digital economy as a system based on the use of digital computer technologies. He singles out several key features of such an economy: electronic business: conducting any commercial activity within the framework of global telecommunications networks; E-commerce: commercial activity aimed at obtaining profit, with comprehensive automation of the commercial cycle through a global network; variety of business models and tools: electronic stores, catalogs, payment



systems, auctions, shopping centers, virtual communities and others; electronic data exchange: standardized computer-to-computer exchange of business data between trading partners and other participants in the digital economy (VINNYK, 2018, p.124)

We believe that from a legal point of view, the digital economy is characterized by a number of specific features. First, it is the "virtual" nature of economic activity, which is increasingly moving online. Secondly, the blurring of the boundaries between producer and consumer, as Internet platforms allow end users to become producers of content, goods and services themselves. Third, the growing role of data as the main resource of the digital economy creates new challenges for its collection, storage, processing, and use. Fourth, the cross-border nature of most operations in the digital economy complicates their legal regulation.

The specified features of the digital economy necessitate the revision of many traditional legal structures and institutions, in particular in the areas of intellectual property rights protection, personal data protection, taxation, e-commerce settlement, online dispute resolution, etc. At the same time, the digital transformation of the economy also opens up new opportunities for improving legal regulation, for example, through the introduction of "smart" legislation with the use of blockchain technologies.

At the same time, legal support for the development of the digital economy is quite fragmented and unsystematic both at the national and international levels. The lack of a comprehensive regulatory and legal framework that comprehensively regulates relations in the field of digitalization creates legal uncertainty and hinders the effective functioning of the digital economy. Therefore, it is extremely important to form a balanced system of legal norms that would establish an optimal balance between stimulating innovation, protecting the rights of participants in digital relations, and ensuring public interests.

In addition to legal uncertainty, the digital transformation of the national economy causes a number of other urgent needs that require a comprehensive solution.

In particular, there is an urgent need for the formation and development of digital infrastructure. The effective functioning of the digital economy is impossible without the proper level of development of telecommunication networks, server capacities, cloud services, data processing centers, etc. Taking into account the rapid growth of data volumes and the need for their operational processing, it is becoming important to ensure broadband access to the Internet, in particular in rural areas, as well as the



introduction of 5G technologies. The lag in the development of digital infrastructure can significantly limit the opportunities for domestic enterprises to fully implement digital technologies and integrate them into global value-added chains.

No less urgent is the need to increase the digital literacy of the population. The success of digital transformation depends not only on the availability of technologies but also on the readiness and ability of consumers, employees, and managers to use them effectively (BRECHKO, 2020, p.16). Therefore, it is important to introduce effective educational programs aimed at the development of digital competences at all levels - from general secondary to higher and postgraduate education. Retraining and training of the adult population employed in traditional sectors of the economy in order to adapt to the new requirements of the labor market also require special attention.

Another digitalization priority should be the development of a cyber security system. The growth of cybercrime is due to large-scale transformations in the structure of criminal opportunities, which emphasize the evolution of the criminal environment (GRAHAM, 2018). The widespread adoption of digital technologies and the growth of digitized information increases the risks of cyber-attacks, data leakage, fraud, etc. (BRECHKO, 2020, p.13). Therefore, it is extremely important to ensure reliable protection of critical infrastructure, personal data of citizens and commercial information of business entities. Such a step involves not only the adoption of relevant legislation but also the implementation of a complex of organizational, technical, and educational measures.

An additional legal problem arising in the context of digital transformation is the need to improve labor legislation. O. Brechko points out that the rapid introduction of automation and robotics into production processes leads to a reduction in jobs, especially for workers engaged in routine, repetitive work (BRECHKO, 2020, p.12). This fact threatens a significant increase in unemployment, social tension, and inequality. Researchers believe that human capital is the main driver of economic growth (SHAHBAZ *and others*, 2022). Therefore, it is important to develop effective mechanisms for retraining, retraining and employment of workers who lose their jobs due to digitalization, as well as the introduction of flexible forms of employment and social protection.

In addition, the spread of remote work, the use of artificial intelligence, and algorithmic management increase the risks of violating employees' labor rights, particularly in relation to wages, working hours, labor protection, etc. Accordingly, labor



legislation must be adapted to regulate new forms of labor organization and ensure a proper balance of interests of employers and employees in the digital environment.

Taking into account the large-scale impact of digitalization on socio-economic processes, the issue of stimulating economic activity in the context of the transformation of the national economy requires special attention.

The theoretical and legal characteristics of the mechanisms for stimulating economic activity play a key role in the formation of a balanced system of legal norms that ensures the progressive development of the digital economy. The researchers note that stimulating economic activity is a complex process of applying various means of economic, organizational, and legal influence to encourage business entities to the desired behavior and achieve specified economic and social results (MOCHERNY, 2002, p. 473). That is, stimulation involves the use of material and non-material incentives in order for producers, consumers, investors, etc., to act in accordance with the interests of those who apply such incentives (YEVTUSHEVSKA, 2018, p. 36-37).

From a legal point of view, stimulation of economic activity can take various forms. In particular, it can be carried out by establishing tax benefits, subsidies, grants, and preferences for entities that conduct activities in strategically important areas for the state; provision of state guarantees, loans, or investments; conclusion of public-private partnership agreements; provision of consulting, information, and other support, etc. At the same time, it is important to ensure that the application of such incentive tools is carried out on a clear, objective, and non-discriminatory basis.

As O. Yevtushevska rightly points out, in contrast to motivation, which is endogenous in nature and depends on a person's internal needs and attitudes, stimulation is an external action aimed at encouraging certain behavior (YEVTUSHEVSKA, 2018, p. 37). Therefore, within the framework of digital transformation, it is important to ensure a harmonious combination of tangible and intangible incentives that take into account both business needs and social interests.

In particular, tax benefits, accelerated depreciation of fixed assets, state subsidies and grants for the implementation of digital technologies, as well as advantages in the state procurement system for innovative products of domestic developers can be effective forms of financial incentives. In turn, non-material incentives should include recognition of achievements, training and professional development, creation of favorable conditions for self-realization, and career growth of employees.





Material stimulation, as a rule, involves the use of various economic incentives and benefits aimed at increasing the interest of business entities in achieving certain economic results. The main forms of material incentives include tax benefits (reduction of tax rates, exemption from paying taxes, etc.); state subsidies, subsidies, and loans on preferential terms; priority access to public procurement; provision of guarantees, sureties, and risk insurance; and reimbursement of expenses for scientific research and development (OZHIGANOV and others, 2014).

In contrast to material, non-material incentives do not provide for a direct monetary reward but are aimed at meeting the social, professional, and personal needs of business entities. The main forms of non-material stimulation include professional development, professional retraining and training; provision of additional powers, expansion of the sphere of responsibility; promotion on the career ladder, awarding of honorary titles; public recognition of merit, moral encouragement; creation of favorable working conditions, social guarantees (OZHIGANOV and other, 2014).

We believe that the stimulation of innovative activity is of particular importance within the framework of digital transformation. After all, innovations are the driving force behind digitization and increasing the competitiveness of the national economy. From a legal point of view, stimulation of innovation can be carried out in the following main directions:

*tax incentives.* Application of preferential rates of income taxation, value-added tax, and accelerated depreciation for enterprises conducting research and development works and implementing technological innovations. Such preferences contribute to the growth of investments in research and development works, as well as the development of innovative entrepreneurship;

*Financial support.* Provision of state grants, subsidies, loans on preferential terms, and guarantees for the implementation of innovative projects, especially at the initial stages of their development and implementation. This direction allows you to reduce risks and increase the investment attractiveness of innovations;

*Development of innovative infrastructure.* Creation of specialized innovation centers, technology parks, and business incubators that provide startups and small innovative enterprises with platforms, equipment, consultations, etc. The formation of such an infrastructure provides favorable conditions for the commercialization of the results of scientific research;



*Improvement of the public procurement system.* Introduction of preferences for domestic developers of innovative products, in particular by establishing additional points when evaluating tender offers. Such a step contributes to the growth of demand for innovations and stimulates business entities to increase their competitiveness;

*Encouraging cooperation and technology transfer.* Legal provision of public-private partnership in the field of research and development, conclusion of license agreements, creation of joint ventures, etc. Such tools make it possible to combine scientific developments with industrial production and effectively commercialize innovations;

*Development of human capital.* Directing investments in the education and professional training system ensures the formation of digital skills, creativity, and entrepreneurial thinking. Improving personnel qualifications is a decisive factor in the successful implementation of innovative ideas.

Thus, stimulating economic activity in the conditions of digital transformation requires a comprehensive approach that combines various legal instruments of a tangible and intangible nature. The application of such incentives should contribute to increasing the innovative activity, productivity, and competitiveness of domestic enterprises and ensure a balance between the interests of business and the social needs of society.

One successful example of implementing such a comprehensive approach is the introduction of the special legal regime "Diia City" in Ukraine, which demonstrates an effective combination of various tools for stimulating the development of the digital economy.

"Diia City" is an innovative regulatory regime introduced in Ukraine in 2022 with the aim of creating favorable conditions for the dynamic growth of the IT sector and the spread of digital technologies in other sectors of the national economy. The legal support of this regime includes a set of stimulating measures aimed at activating innovative activities, attracting investments, and developing human capital.

According to Clause 9 of Art. 1 of the Law of Ukraine "On Stimulating the Development of the Digital Economy in Ukraine" No. 1667-IX dated 15.07.2021, the legal regime of "Diia City" is a set of legal norms that determine the rights and obligations of a person arising, changing and terminating in connection in connection with the application for acquisition, acquisition, and loss of the status of a resident of "Diia City", as well as the peculiarities of regulating relations with the participation of a



resident of "Diia City" and regarding participation in its authorized capital (UKRAINE, Law of Ukraine № 1667-IX, 2021). This regime demonstrates a comprehensive approach to stimulating the development of the digital economy in Ukraine.

In particular, Diia City residents are provided with a number of significant tax benefits, such as: 5% personal income tax; 22% of the single social contribution from the minimum wage; 9% tax on "capital withdrawn" or 18% income tax (DIIA.CITY).

In addition, Diia City offers alternative forms of cooperation, in particular GIG contracts, which combine company flexibility with basic social guarantees for employees. It is also possible to cooperate with natural persons-entrepreneurs and conclude employment contracts according to the Code of Labor Laws.

In our view, an important element of the Action City regime is the introduction of venture capital investment tools typical of English law, such as convertible loans, priority payments to investors, options, and staff incentive schemes. This position is based on the fact that it significantly simplifies the access of Ukrainian companies to the necessary financing.

In general, Diia City creates the most favorable legal environment for the development of the digital economy in Ukraine. The tax, financial, and infrastructural preferences received by residents of this regime are designed to increase the innovative activity, productivity, and competitiveness of domestic IT companies, promote investment attraction, and accelerate the digital transformation of the national economy.

Along with measures aimed at developing the digital economy in Ukraine, it is important to analyze the European Union's experience in this area. In recent years, the EU has been actively developing and implementing a number of legal acts designed to stimulate the digital transformation of member states' economies.

One of the key initiatives is the Digital Agenda for Europe, approved by EU Directive IP/10/581 Brussels in 2010. The specified strategic document defines the main areas of development of the digital economy, including creation of a single digital market, development of broadband access to the Internet, improvement of digital skills of the population, ensuring cyber security, etc. (KRAUS; KRAUS, 2022, p.78). For the implementation of the strategy during 2010-2020, a number of regulations and directives were adopted aimed at harmonizing the legislation of member countries in



the field of electronic commerce, personal data protection, copyright in the digital environment, etc.

An equally important initiative of the European Commission in this direction is the Digital Compass 2030 - a strategic document that defines four main vectors of digital transformation: digital skills, digital infrastructure, digital transformation of business, as well as digitalization of public services. Each of these areas is supported by specific targets that Europe must achieve by 2030. So, it is planned that 75% of Europeans will have at least basic digital skills, 20% of businesses will use cloud technologies, 5G will cover the entire territory of the EU, and 90% of households will have access to the Internet with a speed of more than 100 Mbps (COMPASS - 2030: Europe's Path to the Digital Decade).

To stimulate the development of the digital economy, the European Union actively uses other regulatory and legal instruments. In particular, in 2022, the Act on Digital Markets entered into force, which establishes rules for the conduct of large technology companies acting as "custodians" of digital platforms. This document aims to ensure fair competition and greater choice for consumers in the digital environment. In parallel, there is an Act on Digital Services, which defines the requirements for transparency and accountability of online platforms regarding the distribution of content (DIGITAL Services Act (DSA) and Digital Markets Act (DMA)).

In addition, on March 13, 2024, the EU adopted the Regulation on artificial intelligence, which establishes clear rules for the use of AI systems, including their safety and responsibility (THE EUROPEAN Parliament has adopted a law regulating the work of artificial intelligence, 2024). This regulatory act aims to ensure that the development of advanced technologies takes place in a manner that respects fundamental human rights. In general, the above initiatives demonstrate the EU's comprehensive approach to the formation of a favorable regulatory environment for the digital economy aimed at consumer protection, innovation support, and public trust.

Comparing European and Ukrainian experience, it should be noted that domestic legislation in the field of digital transformation generally corresponds to European approaches and standards. For example, the Law of Ukraine "On stimulating the development of the digital economy in Ukraine" (UKRAINE. Law of Ukraine № 1667-IX, 2021) identifies similar priorities: digital skills, digital infrastructure, digitalization of business, and public services. At the same time, there are certain differences in the practical implementation of such initiatives, which require further



improvement of the legal framework and increased synchronization with European trends.

In our opinion, it is worth considering in more detail the most successful examples of legal regulation aimed at stimulating the development of the digital economy in individual member states of the European Union.

Germany, as one of the leaders of digital transformation in Europe, demonstrates a comprehensive approach to the discussed issue. In particular, the key normative acts are the National Strategy of Artificial Intelligence (STRATEGIE der Bundesregierung für Künstliche Intelligenz), the Law on Electronic Government (ACT TO promote electronic government), as well as the Digital Strategy 2025 (DIGITALE Strategie 2025), which determine the priority areas of digitization in the public sector, industry, and social life. As O. Winkel points out, it is possible to fully realize the potential of e-government only when expectations are lowered, and the development of this sector is considered mainly as a strategic investment for the future (WINKEL, 2007, p.163).

The practical implementation of these initiatives was the development of high-speed digital infrastructure, acceleration of the implementation of Industry 4.0 technologies, and active support of the startup ecosystem. Thus, the National Strategy of Artificial Intelligence envisages measures for the development of advanced AI technologies and their practical application in various fields. The Law on e-government laid the legal basis for expanding the list of public services available online. The Digital Strategy 2025, in turn, defines a comprehensive plan for the digitalization of the national economy and society.

The experience of the Netherlands demonstrates an example of effective practical implementation of normative and legal initiatives in the field of cyber security and e-government. National cyber security strategy (THE NETHERLANDS Cybersecurity Strategy 2022-2028) gave an impetus to the development of a reliable system for the protection of critical infrastructure, the implementation of advanced standards of information security, as well as programs to improve the cyber hygiene of the population. The "Government Digitization" program (INFORMATION PUNT Digitale Overheid, 2023) contributed to the expansion of the list of public services available in electronic format, which led to a significant increase in the level of digital involvement of citizens.



Estonia, as a recognized leader of digital transformation in Europe, demonstrates the successful practical implementation of its key regulatory acts. Law on information systems (INFOÜHISKONNA service law, 2004) gave an impetus to the formation of a reliable, uninterrupted and protected state IT infrastructure. Electronic Identification and Trust Services Act (E-IDENTIMISE ja e-tehingute vysudstuensteus status, 2016), in turn, became the basis for the widespread introduction of electronic signatures, registers, voting, and other digital services, which increased the efficiency and convenience of interaction between citizens and authorities. Law on cyber security (KÜBERTURVALISUSE seedus, 2018) provided clear regulation of the responsibility and powers of state structures in the field of information security, contributing to the development of effective mechanisms for protection against cyber threats.

Spain also demonstrates the successful practical implementation of its key regulatory initiatives in the field of digital economy regulation. The national strategy on artificial intelligence (LA ESTRATEGIA Nacional de Inteligencia Artificial) became the basis for the implementation of advanced AI technologies in a wide range of industries, from health care to transport and energy. In particular, a network of research centers was created, and programs to support innovative solutions based on artificial intelligence were launched. Law on measures of digital transformation of the public sector (LEY de Transformación Digital, 2019) gave impetus to the active digitization of public services in Spain. Citizens were given the opportunity to remotely interact with authorities, submit documents electronically, make electronic payments, etc. Such actions significantly increased the availability and convenience of government services. Law on the protection of consumer rights in the field of digital services (PAQUETE de la Ley de Servicios Digitales) strengthened guarantees of citizens' rights in the online environment. The document defines the requirements for the transparency of the activities of digital platforms, the mechanisms for protecting personal data and combating disinformation. This contributed to the growth of public trust in digital services.

A study that analyzed the development of municipal web pages in Spain indicates a growing specialization in e-government. This suggests that the concept of e-government cannot be one-size-fits-all and, instead, should be addressed through individual programs. (JANOWSKI, 2015, p. 226). In general, the practical implementation of Spain's legislative initiatives in the field of the digital economy demonstrated concrete results in the form of active digitalization of public services, the



introduction of advanced AI technologies in various industries, as well as strengthening the protection of the rights of consumers of digital products and services.

Although Ukraine generally meets European standards in the field of digital transformation regulation, certain problems remain that require further resolution.

In our opinion, the main obstacle to the effective implementation of means of stimulating the development of the digital economy in Ukraine is insufficient synchronization of domestic legislation with modern European trends. For example, although the Law of Ukraine "On stimulating the development of the digital economy in Ukraine" defines similar priorities, such as digital skills, digital infrastructure, digitalization of business, and public services, the practical implementation of such initiatives still lags behind the best European experience.

Another problem that holds back the effectiveness of the means of stimulating the development of the digital economy in Ukraine is the lack of effective mechanisms for supporting the implementation of innovative technologies in various sectors of the national economy.

In particular, despite the creation of a special "Diia City" regime, which provides tax, financial, and infrastructure preferences for IT companies, other high-tech industries continue to face numerous obstacles on the way to digital transformation. For example, enterprises in the industrial sector, energy, transport, or agro-industrial complex still do not have sufficient state support for the modernization of production, the implementation of Industry 4.0 technologies, or the development of digital solutions.

This situation is primarily explained by the fragmentation and narrow profile of the existing simulation tools. The Diya City regime is focused exclusively on the IT sector, while other high-tech industries remain outside the scope of this special legal regime. In addition, existing support measures, as a rule, are of a point nature and do not provide systematic support for the digital transformation of enterprises.

In addition, the insufficient level of digital literacy among the population and citizens' low involvement in digitalization processes slow down the pace of development of the digital economy in Ukraine. The lack of a comprehensive state program to improve digital skills and spread digital culture among different segments of the population is a significant challenge.

In order to solve the outlined problems, Ukraine needs to intensify its efforts in the following priority directions: first, it is important to ensure the harmonization of



domestic legislation with the advanced European practice of regulating the digital economy. This step involves the introduction of mechanisms for stimulating digital innovation, building digital infrastructure, and ensuring cyber security, similar to those used in EU member states. The adaptation of the best foreign practices will allow to overcome Ukraine's lag in the pace of digital transformation and create a favorable regulatory and legal environment for the development of the digital economy.

Secondly, it is necessary to expand the list and deepen measures of state support for the digital modernization of enterprises in various sectors of the national economy. In addition to the IT industry, other high-tech industries, such as industry, energy, transport, etc., should also be given access to tax incentives, grants, credit programs, and other infrastructural assistance for the implementation of innovative technologies. Such a comprehensive approach will ensure the balanced development of digital transformation in Ukraine.

The last, key task should be the development and implementation of an effective state program to improve the digital literacy of the population. The mentioned event involves the implementation of educational initiatives aimed at developing the necessary digital skills among citizens of different ages and social statuses. Only the active participation of the population in digitalization processes can ensure the sustainable development of the digital economy in Ukraine.

Comprehensive implementation of the outlined proposals will contribute to accelerating Ukraine's digital transformation, increasing the competitiveness of the national economy, and improving the investment climate in the country. At the same time, it is important to maintain the flexibility and adaptability of domestic legislation so that it corresponds to dynamic changes in the technological and economic environment.

## CONCLUSION

The digital economy is a relatively new phenomenon characterized by the active use of information and communication technologies (ICT) in all spheres of economic activity. From a legal point of view, the digital economy can be defined as an economic activity in which the main means (factors) of production are digital, electronic, and virtual data.

The main features of the digital economy from a legal standpoint are: the "virtual" nature of economic activity, which is increasingly moving to the online space;





the blurring of the boundaries between the producer and the consumer, as Internet platforms allow end users to become producers of content, goods and services; the growing role of data as the main resource of the digital economy, which creates new challenges regarding its collection, storage, processing and use; the cross-border nature of most operations in the digital economy, which complicates their legal regulation.

New features of the digital economy require a rethinking of traditional legal approaches. In particular, issues of intellectual property protection, privacy, taxation, e-commerce regulation, and online dispute resolution arise. At the same time, digital transformation creates opportunities for improving legal regulation, for example, by introducing "smart legislation" using blockchain technologies. This will allow legal institutions to adapt to dynamic changes in the digital environment.

For the effective development of the digital economy, it is important to create a balanced system of legal norms aimed at its stimulation. This may involve the introduction of tax preferences, government subsidies, grants, and other financial instruments to support innovation and digital transformations in various industries. It is also necessary to form a favorable institutional infrastructure, for example, technology parks, business incubators, research centers, etc.

Despite certain achievements of domestic legislation in regulating certain segments of the digital economy, there is a need for further improvement and harmonization with advanced European practice. The key directions for improving the regulatory and legal support for the development of the digital economy in Ukraine should be: ensuring the synchronization of domestic legislation with European trends, expanding the list, and deepening measures of state support for the digital modernization of enterprises in various sectors of the economy, as well as the development of an effective state program to increase the digital literacy of the population.

The comprehensive implementation of the mentioned measures will contribute to accelerating the digital transformation of Ukraine, increasing the competitiveness of the national economy, and improving the investment climate in the country.

In general, the legal regulation of the digital economy is a complex, multifaceted and dynamic process that requires constant improvement in order to ensure the effective functioning of new forms of economic relations based on the application of advanced digital technologies. The key task is to create a balanced system of legal



norms that would stimulate innovation, protect the rights of participants in digital relations, and, at the same time, ensure the achievement of the public interests of society.

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