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Digitalization of the Global Economy and Its Impact on International Economic Processes

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ABSTRACT

Digitalization has emerged as a key driver of economic growth and a supporting factor for economic sustainability, significantly influencing international economic processes and relations. Leading countries in the development of the digital economy are implementing national digitalization strategies or creating a favorable fiscal and tax environment to attract investment in innovative projects that promote digitalization and the development of industrial zones with a high concentration of advanced technology manufacturers. The purpose of this article is to examine the impact of economic digitalization on international economic processes, including the development of industrial zones. The study applies methods of analyzing strategic documents of governments in the EU, East Asia, and Northern Europe to identify strategic directions for digitalization and the scale of their financing. To assess the level of economic digitalization, the dynamics of high-tech product exports by world regions over 2014–2024 and the trends in ICT goods exports and imports during 2000–2022 were analyzed. The results demonstrate the significant role of state policy and public financing in economic digitalization. In the EU, financing of innovative projects in high-tech sectors prevails. In the USA, the Chips and Science Act (2022) provides subsidies for producers of critical technologies in artificial intelligence, quantum computing, and green energy. In China, five-year digital economy plans are aimed at increasing the added value of high-tech industries. Using the United States as an example, it was found that a favorable fiscal and tax environment (including tax incentives, subsidies under state digitalization programs) contributes to the economic digitalization and directs private and foreign investment towards high-tech enterprises. The study shows a significant impact of digitalization strategies on foreign direct investment flows into high-tech sectors in countries that have created supportive fiscal and tax conditions for innovative development. A relationship is identified between public financing of digitalization, the development of high-tech sectors, and the transformation of international economic processes through the attracting of FDI and the formation of digital industrial clusters.



KEYWORDS

circular economy, industrial parks, digitalization of the economy, eco-industrial parks, industrial symbiosis, industrial park.



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Цифровізація світової економіки та її вплив на міжнародні економічні процеси

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СТАТТЯ

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Цифровізація стала новим чинником економічного зростання та підтримки економічної стійкості, значно вплинувши на міжнародні економічні процеси та відносини. Країни-лідери за розвитком цифрової економіки впроваджують національні стратегії цифровізації або формують сприятливе фіскальне, податкове середовище для залучення інвестицій у інноваційні проекти, що сприяють цифровізації та розвитку промислових зон з високим рівнем концентрації виробників нових технологій. Мета статті полягала у дослідженні впливу цифровізації економіки на міжнародні економічні процеси, в тому числі розвиток промислових зон. У статті застосовуються методи аналізу стратегічних документів урядів в країнах ЄС, Східної Азії та Північної Європи для виявлення стратегічних напрямів цифровізації та обсягів їх фінансування. Для оцінювання рівня цифровізації економіки проаналізовано динаміку експорту високотехнологічної продукції за регіонами світу у 2014–2024 роках, динаміку обсягів експорту-імпорту ІКТ-продукції у 2000–2022 роках. Результати демонструють важливу роль державної політики та державного фінансування цифровізації економіки: в ЄС переважає фінансування інноваційних проєктів підприємств високотехнологічних секторів; у США прийнято Закон про фінансування напівпровідників для субсидування виробників критично важливих технологій у сферах штучного інтелекту, квантових обчислень та зеленої енергетики; у Китаї п'ятирічні плани цифровізації економіки спрямовані на зростання доданої вартості високотехнологічних галузей. На прикладі США встановлено, що сприятливе фіскальне та податкове середовище (податкові пільги, субсидії у межах державних програм цифровізації економіки) сприяє цифровізації економіки та спрямуванню приватних іноземних інвестицій у високотехнологічні підприємства. Дослідження свідчить про значний вплив стратегій цифровізації економіки на потоки прямих іноземних інвестицій, які спрямовуються у високотехнологічні сектори та підприємства країн, які створили сприятливе фіскальне, податкове середовище для реалізації інноваційних проєктів. Встановлено взаємозв'язок між державним фінансуванням цифровізації, розвитком високотехнологічних секторів та трансформацією міжнародних економічних процесів через механізм залучення ПІІ та формування цифрових промислових кластерів.

КЛЮЧОВІ СЛОВА

циркулярна економіка, промислові парки, цифровізація економіки, екоіндустріальні парки, промисловий симбіоз, промисловий парк.

1. Introduction

The global digital transformation of the economy is one of the leading global trends, which radically restructures the traditional architecture of international economic relations. The transition to Industry 4.0 and the introduction of technologies – artificial intelligence, cloud computing, the Internet of Things (IoT), robotics, fintech, and blockchain – have led to the fact that the digital transformation of the economy has become a factor in the competitiveness of leading countries investing in high-tech sectors and industries. At the same time, digitalization is uneven, with a significant gap between highly developed and developing countries, which exacerbates contradictions and exacerbates economic and social inequality [4]. In addition, digitalization is taking place against the backdrop of global climate change, raw materials, food and energy crises, military conflicts and geopolitical instability. This forces the world community, experts, and regulators to rethink the strategies of economic development, actualizes the transition to environmentally friendly production and consumption, circular economy.

2. Literature Review

The impact of the digital economy on the reconfiguration of international economic relations is studied through the identification of links between technological innovation and the modernization of the global value chain [11; 17; 21]. In particular, the example of China demonstrates the presence of direct links between technologies and the modernization of value chains in the country's manufacturing industry in 2006-2020 [12; 17]. The rapid development of digital technologies has made it possible to carry out electronic trade in non-distributive services such as telemedicine, teleeducation, and outsourcing of design and R&D services between countries in various forms.

At the same time, in the era of globalization, global value chains are becoming more regionalized due to the emergence of industrial zones, and digital technologies and platforms are becoming the drivers of the development of value chains [18; 21].

Of particular importance for global value chains is the rise of digital technologies such as big data, the Internet of Things, and artificial intelligence. These technologies lead to the development of new type of connections, cooperation and innovations, significantly expanding the opportunities for growth and globalization of international economic processes. Digital platforms play a key role in creating global value chains, as they create opportunities for the development of multilateral partnerships and interaction, change the way profits are distributed, and change the way work is organized [3; 18].

Other studies highlight the impact of the digital economy on international economic processes through industrial integration: technology contributes to the coordinated development of production, production services through the dissemination of knowledge, information and the expansion of markets [16], especially in small towns.

In contrast to the identified positive effects of digitalization of the production of goods and services, the article [23] presents a U-shaped relationship between the digital economy and the industrial cooperative agglomeration in China. This is due to the fact that the high level of industrialization in industrial clusters over time leads to an increase in land prices, a burden on human capital and labor resources, and transport challenges due to the high concentration of enterprises [23]. In addition, the activities of industrial clusters and the high concentration of resources cause environmental burden, the outflow of resources from adjacent territories and weaken the ability of enterprises to support technological progress.

Another line of research examines the change in global investment flows in favor of technology industries and the knowledge economy, which also affects the value chain [32]. European countries are among the largest investors in digital technologies produced in developing countries. On the other hand, North American economies are more prone to knowledge-intensive FDI in developing countries at a high rate. Developing countries also play a large role in global investment flows in digital industries. However, with the respective exceptions of China, India, and the Four Asian Tigers, domestic and external FDI in developing countries is predominantly manufacturing-oriented, with less focus on R&D, engineering, and ICT funding [31].

3. Problem Statement

Despite a significant number of empirical studies of the consequences of digitalization of the economy and its impact on changes in international economic processes, the problem of state support and financing of various areas of digitalization requires attention. The latter contributes to the accumulation of private capital in high-tech sectors through the tax incentives created, the provision of subsidies or grants for the implementation of innovative projects that promote digitalization.

4. Methods and Materials

The theoretical basis of the study is the fundamental provisions of economic theory, the concept of digital economy and circular economy, and industrial parks, which allow explaining the cause-and-effect relationships between economic growth and state regulation of the economy in the context of the growth of high-tech industries.

The study is based on methods of comparative analysis of programs and strategies for financing the digitalization of the economy in various areas in the EU, East Asia and North America. These three regions were selected for comparative analysis, taking into account the highest volumes of exports of high-tech products and the volumes of export-import of ICT in these regions. The information base of the study was made up of data and materials from the World Bank, the European Commission, the Organization for Economic Co-operation and Development, and the United Nations Development Program, which provided detailed information on the strategies for digitalization of the economy and directions for financing digitalization in the EU, East Asia, and North America.

5. Results and Discussion

Digitalization of the economy is considered a new paradigm of production, exchange, consumption and distribution of manufactured goods and services, which is based on the use of innovative technologies to improve production processes, efficient use of resources, create new digital models of doing business and provide e-services by the state to increase the availability of public services. The digital economy has significant potential to increase productivity, create new jobs, and increase the competitiveness of manufactured goods and services, as well as the country as a whole.

The digital economy has become a new mechanism for economic growth and competitiveness in global markets. In view of this, the governments of developed and developing countries are adapting national legislation, institutions and implementing national strategies for the digitalization of the economy. According to the World Bank, the countries of East Asia, North America and Europe are significantly ahead of other regions in terms of the share of exports of high-tech products (products created based on advanced scientific developments and investments in R&D, namely: aerospace, industrial, pharmaceuticals, electronics, biotechnology, medical equipment, etc.) in 2014–2024. The countries of North Asia (7.43%) and the countries of South Asia (8.88% in 2014–2024) significantly increased the volume of technology exports, which has a positive effect on the competitiveness of national economies in these countries, compared to other regional players.

Table 1. Dynamics of exports of products of high-tech sectors of the economy in different regions of the world (% of exports of manufactured products) in 2014–2024

Region	2014	2019	2020	2021	2022	2023	2024	Absolute deviation 2024–2014, %
East Asia and the Pacific	27,25	33,98	35,89	35,27	35,04	33,77	34,68	+7,43
Europe and Central Asia	17,12	16,24	15,88	16,12	19,94	20,2	21,43	+4,31
European Union	16,61	16,35	16,06	16,38	19,12	19,23	20,62	+4,01
Latin America and the Caribbean	13,24	13,84	14,76	12,58	12,75	12,45	13,12	-0,12
Middle East, North Africa, Afghanistan, and Pakistan	4,92	4,18	7,21	7,15	6,8	8,59	9,62	+4,7
North America	19,37	18,39	18,97	19,18	19,5	20,79	22,91	+3,55
South Asia	9,18	9,84	10,7	9,94	12,34	14,54	18,06	+8,88
Sub-Saharan Africa	5,62	6,47	5,43	4,74	5,68	5,03	6,07	+0,45
Everything in the world	19,06	20,72	21,83	21,54	22,89	22,95	24,76	+5,7

Source: [28].

Instead, we note the downward trend in international trade (exports and imports) of ICT goods and services on a global scale from the 2000s to 2022 (ICT exports amounted to 15.13% in 2000, 11.92% in 2022; ICT imports amounted to 15.53% in 2000, 12.76% in 2022). At the same time, East Asian countries remain leaders in world trade in ICT products, and the countries of North America, Latin America and Europe are lagging far behind, having significantly reduced the volume of international exchange of ICT products over the past twenty years (Table 2). Such trends are due to the relocation of high-tech production to East Asian countries, especially electronics manufacturing, due to significantly lower labor costs. This has led to the creation and development of industrial zones and production clusters of enterprises engaged in high-tech sectors. In Asian countries, global value chains and a production network have been formed, which unites Chinese electronics manufacturers, semiconductor manufacturers in South Korea, microchip manufacturers in Taiwan, manufacturers of important components for technological equipment, which are concentrated in Japan. Vietnam and Malaysia have become centers for the assembly of electronic products. For comparison, the economies of EU countries focus on the digitalization of funded services, software development, and the provision of other types of ICT services.

Table 2. Dynamics of exports and imports of ICT goods and services by regions of the world in 2000–2022, %

Region	Export of ICT goods and services (% of total exports)			Imports of ICT goods and services (% of total exports)		
	2000	2010	2022	2000	2010	2022
East Asia and the Pacific	25,15	25,52	25,65	22,57	20,25	24,15
Europe and Central Asia	9,13	5,52	4,47	11,97	8,74	6,60
European Union	9,87	6,47	4,88	11,97	9,22	6,75
Latin America and the Caribbean	9,96	8,99	7,07	13,30	12,85	9,40
North America	17,37	8,89	6,46	16,94	13,31	12,00
South Asia	1,56	1,76	2,67	5,12	5,97	7,43
Sub-Saharan Africa	0,68	0,60	-	6,73	6,16	-
Everything in the world	15,13	12,87	11,92	15,53	12,96	12,76

Source: [29; 30].

The shift of the world economy towards the rapid development and practical application of digital technologies (Industry 4.0) has created a new model of economic relations, in which state regulation and state support of high-tech industries play an important role, which ensures the global competitiveness of the country.

The Digital Europe Program provides strategic funding to empower the private sector in digital technologies and reduce dependence on international technology flows. The program aims to support SMEs, industry and public administration in their digital transition, which operate within the network of European Digital Innovation Hubs. All financing programs for the digitalization of the EU economy are closely interconnected within the framework of budget financing for digital development on a long-term basis [5–7; 9; 10].

East Asian countries are shaping industrial policy for digitalization and modernization of production, in which state capital and established state-owned enterprises play a significant role. In 2021, China's Central Cybersecurity and Informatization Commission released the 14th Five-Year Plan to digitize the economy and build a digital infrastructure network in the country, integrating data centers in the country [25]. The Plan defines the following strategic goals for the digitalization of the Chinese economy: achieving 10% of the added value of high-tech sectors in China's GDP; creation of a data market; improvement of digital industrialization; equality and universality of digital public services. In 2023, China presented the "Digital China" action plan for the national digital transformation of the economy: the development of digital infrastructure, data collection and processing systems (data centers), the development of digital public governance, the development of digital culture and competencies, and the strengthening of cooperation with other countries in the field of digitalization [27] (Table 4).

Table 3. Financing the digitalization of the economy in the EU

Program	Purpose	Amount of funding, bln. EUR	Direction of financial support
The Digital Europe Program (2021–2027)	Ensuring the transfer and transfer of digital technologies to the private sector and reducing the EU's import dependence on international supplies	More than 8.1 billion. EUR	Artificial intelligence, cybersecurity, digital skills, cloud technologies
Horizon Europe (2021–2027)	Countering climate change, achieving the Sustainable Development Goals and increasing the competitiveness of the EU economy	More than 93.1 billion. EUR	Innovation and research
Horizon Europe (2028–2034)	Growth of productivity and competitiveness of the EU economy	More than 175 billion. EUR	Implementation of short-term scientific projects in clean aviation, artificial intelligence technologies, etc.
Next Generation EU	To ensure the sustainability of the EU economy and the development of innovation potential, digitalization of the public sector and business	More than 800 billion. EUR	Digital and green transition of the economy
Connecting Europe Facility Digital (2021–2027)	Combining public and private capital for the development of digital network infrastructure	More than 1.5 billion. EUR	Data centers, digital infrastructure, and networks (5G projects, technologies for smart communities, and other projects)
InvestEU	Attracting private and public investment to ensure the economic sustainability of the EU through the implementation of innovative projects	More than 26 billion. EUR	Innovative projects aimed at digitalization and technology implementation in energy, defense, R&D sectors and other important sectors of the economy

Source: Summarized by the authors based on [5–7; 9; 10].

Unlike China, Japan has published its own vision for the development of the digital economy - Society 5.0, which is to solve the chronic problem of an aging workforce and personnel shortages by developing a “smart” society based on the use of artificial intelligence technologies, the Internet of Things, and big data analytics [26]. From 2002 to 2017, Japan annually allocated about 35 billion. USD. for digitalization (science, technology and innovation). In addition to this basic national digitalization plan, Japan is implementing the Strategy for the Development of Artificial Intelligence Technologies for its application in the provision of public services and the formation of an ecosystem for providing services to citizens. Japan's Digital Garden City Nation Initiative aims to address population aging and depopulation in the country's rural regions by building digital infrastructure, developing human resources and their digital skills [14].

Table 4. Financing digitalization in East Asian countries

Country	Program and purpose	Amount of funding, bln. EUR	Sources of funding	Direction of financial support
China	Digital China, New Infrastructure Initiative, 14 th Five-Year Plan	More than 1.4 trillion. USD. (2020-2025)	Central budget, state-owned banks, provincial funds, state-owned enterprises, and corporations	Digital Infrastructure, Artificial Intelligence, Data Centers, Cloud Computing, Semiconductors
Japan	Society 5.0, Digital Garden City Nation Initiative	More than 60 billion USD. USA	State and local budgets, private enterprises	Smart cities, robotics, digital services, Internet of Things technologies
South Korea	Korean New Deal, including the Digital New Deal	About 58 billion USD	State budget (57%), local budgets and private investments	Artificial Intelligence, Digital Governance, Digital Skills, 5G
Singapore	Smart National Program	More than 10 billion USD	State Budget and State Investment Funds	E-government, smart cities, digital public services

Source: Compiled by the author based on [14; 20; 22; 25–27].

South Korea is implementing the Korean New Deal strategy, which was unveiled in 2022 and aims to accelerate digital transformation through data integration, the development of networking, and artificial intelligence technologies (Digital New Deal) [20]. This strategy covers initiatives such as smart digital infrastructure, remote work and educational technologies for learning, artificial intelligence

technologies in medicine. The main goal is to transform society, create an inclusive environment and transition to a low-carbon economy. The strategy also provides for the introduction of economic zones and the provision of fiscal and tax incentives, reduction of regulations to promote the digitalization of business.

In Singapore, he launched the Smart National Program initiative (led by the Ministry of Digital Development and Informatization) to improve urban space, public services and economic efficiency. Note that Singapore ranked 2nd in the World Digital Competitiveness Ranking in 2025, 4th in the Global Innovation Index ranking in 2024, and third in the E-Governance Development Index in 2024 [22].

In 2022, the United States passed the Chips and Science Act and reduced dependence on foreign supplies in the face of geopolitical tensions with partner countries (including China and Taiwan) [1]. In addition, the new law provided for financing the production of critical technologies in the field of artificial intelligence, quantum computing and green energy by providing subsidies in the amount of UAH 39 billion. USD. for the construction, expansion or modernization of factories for the production of new technologies in the United States (Table 5). In addition, it provides for the provision of 25% tax credits on capital expenditures for investments in advanced equipment for technology manufacturers. Budget funding in the amount of UAH 200 billion has been allocated for research and science. dollars, which is provided through the National Science Foundation and the US Department of Energy, to establish regional technology centers throughout the country. In this regard, large manufacturers of technological products announced the implementation of large-scale investment projects (Intel, Micron, Samsung).

Table 5. Financing Digitalization in North America

Country	Program and purpose	Amount of funding, billion EUR	Sources of funding	Direction of financial support
USA	Chips and Science Act of 2022, Broadband Equity Program, AI Initiative	More than 280 billion. USD. on the Chips and Science Act, more than 65 billion. USD. for digital infrastructure	Federal budget, venture capital, private corporations	Semiconductors, Artificial Intelligence, Cybersecurity, Digital Infrastructure
Canada	Digital Charter Implementation Act 2022, Universal Broadband Fund	More than 4 billion. Canadian kroner	Federal Budget, Provincial Programs	Broadband, digital skills, e-services
Mexico	National Digital Strategy 2021-2024	Limited funding, less than 1% of GDP each year	State budget, international financial organizations	E-Governance, Digital Inclusion

Source: Compiled by the authors based on [1; 13; 19].

Thanks to a favorable regulatory environment and government support for high-tech manufacturers, North American countries saw a 23% increase in foreign direct investment (FDI) in 2024. First of all, this growth is due to a wave of large-scale semiconductor projects in the United States, where foreign direct investment increased by 20% [24].

North American countries, primarily the United States, were leaders in the global growth of FDI into the digital economy, compared to other regions of the world. The share of FDI aimed at implementing innovative projects of the digital economy amounted to 28% in 2024, compared to 18% in 2023 (Figure 1).

Other North American countries (Canada, Mexico) have adopted new legislation (Digital Charter Implementation Act 2022 in Canada [13]) to protect personal information in the digital space, introduce new principles for the use of artificial intelligence technologies and free circulation of information.

In the context of the digitalization of the economy and the creation of economic zones with favorable fiscal and tax conditions for doing business, industrial parks or eco-industrial parks (one of the forms of circular economy) began to actively develop. The World Bank report demonstrates that eco-parks have become industrial zones in which cooperation between industrial producers and local authorities has been established to ensure economic, social and environmental efficiency, accelerating the exchange of material, water, energy and information resources [2].

Thus, the higher level of state support and the established system of economic and financial incentives in the field of digitalization provide higher rates of development of high-tech sectors of the economy and contribute to attracting investments (Table 6).

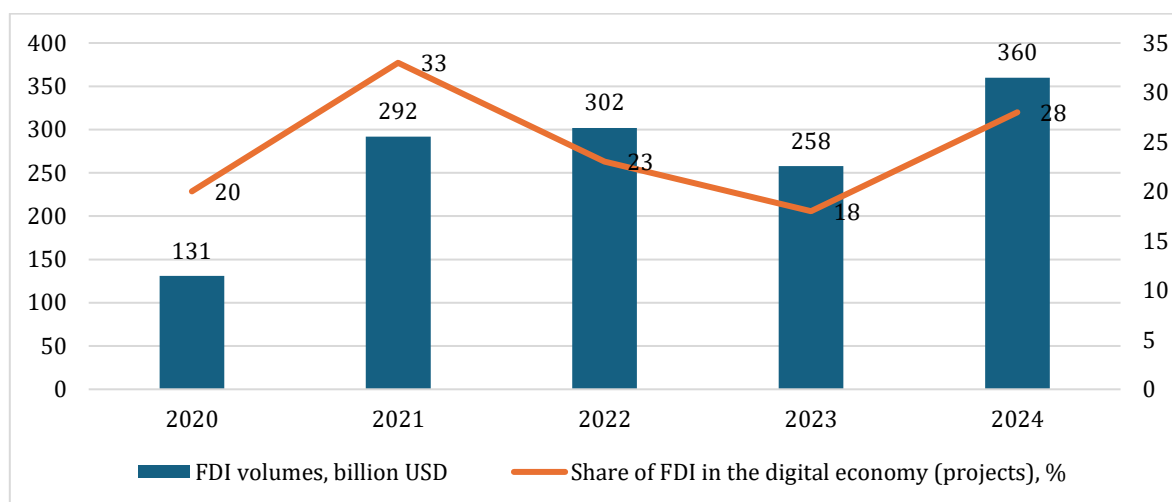


Figure 1. Dynamics of FDI in the digital economy, 2020–2024 (billion dollars and share in the FDI structure, %)

Source: Built by the authors based on [24].

Table 6. The impact of state support on the digitalization of the economy

Region	Financing digitalization	Result
EU	€>900 billion	Growth of high-tech exports
USA	>280 billion dollars.	20–23% increase in FDI
China	>1.4 trillion dollars.	Development of digital industrial parks
Japan	>60 billion dollars.	Moving to Society 5.0
South Korea	>58 billion dollars.	Digital New Deal

Source: Summarized by the author.

From 2001 to 2020, the number of industrial ecoparks increased from 245 units to 438 units. The largest number of industrial zones is concentrated in China, Japan and South Korea (for example, the Ulsan Industrial Ecopark), Europe (for example, Kalundborg in Denmark) [2]. Empirical studies highlight the significant economic, social and environmental potential of these forms of industrial symbiosis, which provides a significant reduction in the impact of industrial production on the environment. In addition, it is important to jointly manage resources and use technology to quickly exchange resources, reuse resources. According to F. Agger, in 2021, 35% of eco-parks installed renewable energy sources; almost 50% have implemented effective water use practices to optimize water use and recovery; and 52% have created an industrial symbiosis program for the recovery of waste and material streams in the park, in particular for heat production [2].

In the context of digitalization, new economic zones began to develop – industrial eco-parks, which combine the activities of digital technology manufacturers, e-commerce enterprises, educational institutions for the development of human capital with the necessary digital skills (Table 7).

Therefore, there are industrial parks of the digital economy in China, which are focused on the production of new generation information products, software, and the provision of services in the ICT sector. In Poland, a special economic zone has been created in the city of Lodz, within which enterprises are focused on the development of Internet of Things technologies, 5G, technological solutions for the development of smart cities. In Greece, the Kavala Industrial Park has been created with EU funding, the activities of which aim to promote digital transformation. The creation of a “new generation” industrial park involves the integration of producers’ activities and the use of high-speed technologies, renewable energy sources in the production of products, and the introduction of “smart management” energy technologies. It is envisaged to transform an industrial zone with a high density of industrial production into technologically smart, environmentally sustainable and innovative industrial parks.

Thus, the state policy of digitalization of the economy contributes to industrial symbiosis and a closed production cycle within industrial parks in the context of an increase in the industrial burden on the environment through investment in digital infrastructure and data centres. The practical implementation of the principles of the circular economy requires the development of digital

infrastructure, the specific spatial organization of industrial zones, and, therefore, the attraction of borrowed capital and private investment to support their functioning.

Table 7. Industrial eco-parks – new economic zones of the digital economy

Country	Eco-park	Dignity
China	Ningjiang District Economic Industrial Park, Songyuan City	Unites the activities of industrial manufacturers and e-commerce enterprises (102 enterprises), promoting cross-border trade, development of the educational sector (11 industrial colleges have been established), Production volumes reached 150 million tons. yuan in 2024 High concentration of the industrial value chain Established a service system and developed services
China	Digital Economy Industrial Park located in Liangjiang New District in Chongqing Municipality in southwest China	Leading national economic zone for the development of the digital economy The activities of the industrial park focus on the production of integrated circuits and electronic information products of the new generation, as well as software, services in the information technology sector and other sectors of the digital economy
Poland	Special Economic Zone in the City of Lodz	Enterprises focus on the development of Internet of Things technologies, 5G, technological solutions for the development of smart cities
Greece	Kavala Industrial Park	EU funding is aimed at digital transformation, strengthening the circular economy by creating a “new generation” industrial park that uses high-speed technologies, renewable energy sources, and “smart management” energy technologies (€65.77 million) It is envisaged to transform an industrial zone with a high density of industrial production into technologically smart, environmentally sustainable and innovative industrial parks

Source: Summarized by the authors based on [7;15].

Industrial symbiosis is a practical way of implementing the principles of a closed production cycle, which allows separate industries or enterprises to create partnerships and establish cooperation, create competitive advantages through the exchange of materials, energy, water resources and by-products. However, the complexity of scaling does not allow enterprises in various industries to implement the circular economy at a rapid pace, in particular due to obstacles to finding partners, reliable coordination of activities, and measuring the effectiveness of partnerships. In cluster operating conditions (such as eco-industrial parks), these issues are especially relevant because the geographical proximity of enterprises contributes to the exchange of resources, but does not reduce the cost of coordination and time. To solve this problem, it is possible to use digital platforms and big data technologies. Digital platforms and Big Data technologies provide an unprecedented level of tracking of resource flows within industrial clusters and eco-industrial parks, which allows minimizing transaction costs, coordinating the flows of secondary raw materials and establishing a closed production cycle.

In conclusion, state funding for digitalization has a significant impact on the development of the country's digital infrastructure, which contributes to the growth of high-tech sectors of the economy. As a result of the established system and mechanisms of state financial incentives for high-tech activities, flows of private foreign investment in high-tech sectors are increasing. In addition, state support and legislation are the basis for the formation of new generation industrial parks with developed digital infrastructure and e-commerce (Figure 2).

As a result, countries with higher levels of government funding ensure not only the growth of high-tech exports, but also the strengthening of international competitiveness.

6. Conclusions

The digitalization of the economy has led to an increase in public financing of high-tech sectors of national economies in the context of maintaining economic resilience, growth and ensuring digital competitiveness. The countries of the EU, East Asia and Northern Europe are leaders in the implementation of programs and strategies aimed at developing the digital economy and creating favorable economic zones for the growth of high-tech sectors. To support digital competitiveness, governments of developed countries are implementing measures to reduce import dependence on international technology suppliers (primarily the EU countries, which provide financing to enterprises implementing innovative projects, or the United States, which subsidizes high-tech manufacturers).

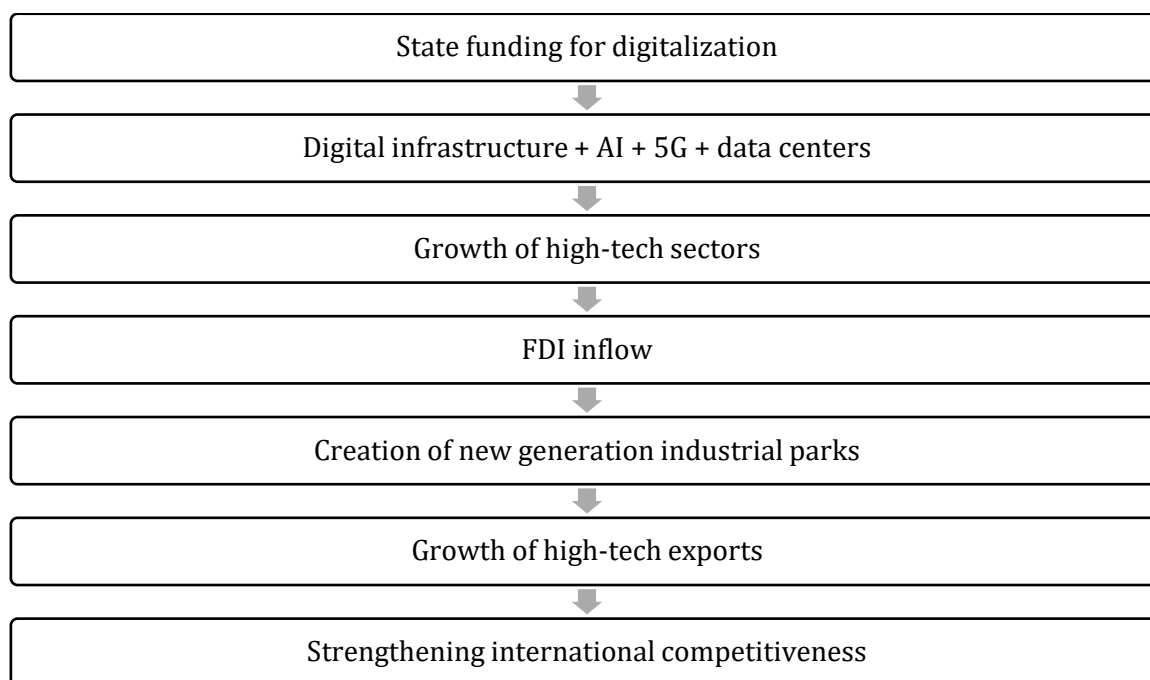


Figure 2. The mechanism of digitalization's impact on international economic processes

Source: formed by the author.

China's industrial policy is aimed at long-term digital growth of the economy by building digital infrastructure and data centers, promoting the creation of industrial parks of the digital economy. Programs and strategies for financing high-tech sectors contribute to the redistribution of foreign direct investment flows and their direction to highly innovative enterprises. Further research should be aimed at identifying the impact of state strategies for digitalization of the economy and state support measures on the development of high-tech industries.

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