iep Institut für Europäische Politik

IER

Research Paper

Joining the EU Digital Single Market – New Challenges for Ukraine

Lilia Oleksiuk



February 2025

Table of contents

3 Abstract

4 Introduction

5 Methodology

6 Implementation of EU legislation

7 Overview of the information and communication technologies market

13 Joining the EU Digital Single Market – status, risks and threats

23 Conclusions and recommendations

27 Appendix 1 Comparative table of implementation of EU legal acts with Ukrainian legislation in the area of the EU Digital Single Market

47 References

The views expressed in this publication are those of the author and do not necessarily reflect the views of the Institut für Europäische Politik (IEP), the Institute for Economic Research and Policy Consulting (IER), or the Federal Foreign Office

Abstract

In 2018, Ukraine began taking its first steps towards integration into the EU's Digital Single Market, in order to simplify access to the EU market for Ukrainian companies, reduce barriers to online trade, implement European cybersecurity and data protection standards, and attract investment in digital infrastructure. Initially, the scale of the necessary changes was estimated to be much smaller, and with the expansion of EU digital legislation, the scope of the norms required for implementation has grown significantly

On 15 December 2020, the Ministry of Digital Transformation of Ukraine presented the study "Ukraine's Integration into the EU Digital Single Market: Potential Economic Benefits",[1] which contains expert assessments and actual calculations of the potential economic effect upon Ukraine.

Ukraine has taken steps to implement the changes required to enable it to integrate into the Digital Single Market (DSM), according to the measures contained in the EU–Ukraine Association Agreement. In particular, the integration depends upon regulatory alignment in the areas of electronic communications, electronic identification and electronic trust services, postal and financial services, electronic payments, cybersecurity and data protection, within the framework of the updated Annex XVII-3, which, according to the authors of this study, "will lead to the introduction of the latest EU standards in the field of electronic communications in Ukraine. Ukraine is also gradually converging with regards to other components of the DSM, such as electronic identification, electronic payments and settlements, protection of intellectual property rights on the internet, cybersecurity, personal data protection, and so on. These steps, in turn, ensure Ukraine's gradual integration into the DSM, which will facilitate digital transformation within the country and open a window of new opportunities for citizens and businesses".[2]

The main goal of Ukraine's integration into the DSM and the interoperability of digital services is to enable Ukrainian businesses to provide services to the EU population and vice versa – to allow European companies to enter the Ukrainian market without additional regulation, that is, equal regulation of the digital market. For the EU and Ukrainian populations, the benefit is an increase in the number of companies providing digital services, which may ultimately reduce the cost of such services.

This article provides a brief description of the identified obstacles and bottlenecks, assesses the risks and implications for certain areas of the digital market, and suggests possible ways by which Ukraine's accession to the DSM can be accelerated and the measures to be taken that can assist with this.

By studying the statistics on the information and communication technologies (ICT) sector in Ukraine before and after the full-scale invasion makes it possible to determine the current state of the market and its development prospects.

Based on the author's analysis of the legal and regulatory framework currently in place in the EU and to be implemented via Ukrainian legislation, the article assesses the state of Ukraine's readiness to join the DSM.

[1] Trade+ Center for International Trade Analysis, Kyiv School of Economics, & Ukrainian Center for European Policy. (2020). Ukraine's integration into the EU Digital Single Market: Potential economic benefits. Ministry of Digital Transformation of Ukraine.

[2] Ibid.

Introduction

In the context of the global transformation of the world economy, the e-services sector is rapidly becoming an important source of growth in the gross domestic product of a country, contributing to increased employment and welfare.

Digitalisation leads to the creation of new jobs in technological sectors, products, services, and related industries, changes in employment sectors (an increase in the number of people employed in the service sector, against a decrease in the number of people employed in industry and construction), as well as a reduction in employment in sectors where automation and robotics come to replace human labour.

At the beginning of 2018, Ukraine identified certain priority areas for joining the EU's Digital Single Market[3] (DSM), including Ukraine's accession to the EU programme Interoperability Solutions for European Public Administrations 2 (ISA2), e-CODEX, e-invoicing, as well as the Single Digital Gateway and Electronic Identification (eID) initiatives, which are united by one important foundation: to ensure the development of interoperability and electronic services in Ukraine in accordance with EU requirements (formats, standards, regulations, technical solutions).

In August 2018, Ukraine developed and submitted to the EU Party (The Directorate-General for Communications Networks, Content and Technology of the European Commission (also called DG CONNECT)) the Strategy for Integration into the EU Digital Single Market of the European Union (the "Roadmap"[4]), together with the Action Plan for the Roadmap, as provided for in Annex XVII of the EU–Ukraine Association Agreement.[5] On 9 December 2020, the Roadmap was adopted by Ukraine and the EU during a meeting of the Association Committee in Trade configuration. It was updated in 2021[6] in view of the changes in EU law that need to be implemented, specifically in terms of the digital economy – in the agreement, "information society services" – and the DSM.

While European countries have had ample time to achieve their goals and have been progressing towards them in an evolutionary manner, Ukraine has had to take a large number of actions in a very limited time in order to fulfil its obligations under the EU–Ukraine Association Agreement. Yet even these countries have encountered certain difficulties in relation to the implementation of so many acts, initiatives and projects.

Given the EU countries' ability to plan for the long term, they have already iterated several approaches to regulating certain areas of the digital economy (for example, in the field of electronic trust services (electronic identification, authentication, and trust services – eIDAS and eIDAS2), and cybersecurity – NIS and NIS2 Directives) and are able to fully track progress towards the set goals by using the Digital Economy and Society Index (DESI) methodology.[7]

---

3 Cabinet of Ministers of Ukraine. (2018). *РОЗПОРЯДЖЕННЯ Про схвалення Концепції розвитку цифрової економіки та суспільства України на 2018-2020 роки та затвердження плану заходів щодо її реалізації*. [Order On the approval of the Concept for the Development of the Digital Economy and Society of Ukraine for 2018–2020 and the action plan for its implementation]. https://zakon.rada.gov.ua/laws/show/67-2018-%D1%80#Text

4 Ministry of Digital Transformation of Ukraine. (n.d.). *Мінцифра представила оновлену Дорожню карту інтеграції до Єдиного цифрового ринку ЄС* [The Ministry of Digital Transformation presented an updated roadmap for integration into the EU Digital Single Market.] https://thedigital.gov.ua/news/mintsifra-predstavila-onovlenu-dorozhnyu-kartu-integratsii-do-edinogo-tsifrovogo-rinku-es

5 Verkhovna Rada of Ukraine. (2014). *Угода про асоціацію між Україною, з однієї сторони, та Європейським Союзом, Європейським співтовариством з атомної енергії і їхніми державами-членами, з іншої сторони*. [Association Agreement between Ukraine, of the one part, and the European Union, the European Atomic Energy Community and their Member States, of the other part]. https://zakon.rada.gov.ua/laws/show/984_011#Text

6 Google Docs. (n.d.). *Інформація щодо процесу інтеграції України до Єдиного цифрового ринку ЄС* [Information on the process of Ukraine's integration into the EU Digital Single Market] https://docs.google.com/document/d/1H6o28O7s8lnK-mUmF9X7aEz-iNY-dyoR0kWu68A87SAg/edit?tab=t.0

7 European Commission. (n.d.). *Digital Economy and Society Index (DESI)*. Digital Strategy. https://digital-strategy.ec.europa.eu/en/policies/desi

Ukraine, on the other hand, has different baseline data; because of the full-scale invasion by Russia, the occupation of 20% of its territory, and its inability to conduct large-scale surveys, statistics, or censuses, the data is fragmented, some data has not been collected since the beginning of the invasion, and some businesses have relocated or left and are now operating in the EU. All of this makes it very difficult to determine the present state of Ukraine's digital economy.

As there is not enough information on the legislative aspects of the DSM to be found in one place on the official websites of the European Commission, this article was prepared using the analysis and systematisation of acts by Bruegel – Improving economic policy (in particular: J. Scott Marcus, Kamil Sekut, Hèctor Badenes Rodríguez); this is the third version of the well-known dataset, the "blue wall" of EU digital regulation. While the 2010 "Digital Agenda" marked the starting point of such regulation, it was the von der Leyen Commission that released a tsunami of new proposals. At the end of the 2019–2024 legislative term, our dataset listed a total of 116 legislative items, 87 adopted as EU laws and 21 still in negotiation, with eight remaining in the planning stage. Eighty-two EU governance mechanisms have been created to implement and enforce the digital legislation.[8]

This analytical report provides answers to the following questions:

- What does Ukraine need to do to join the DSM, when, and within what timeframe?
- What challenges must it overcome?
- How can the European community help to accelerate Ukraine's accession to the EU?

The DSM is primarily concerned with common standards and regulation, uniform rules, and transparent and independent institutions for regulating markets. Therefore, the focus of this article is on aspects of regulation that will influence opportunities or create risks for Ukraine.

Methodology

The main purpose and objectives of this article are:

- to assess the state of Ukraine's legal and regulatory framework and readiness to join the EU's DSM in accordance with EU law, standards and practices;
- to determine the state of Ukraine's digital economy before the war and now;
- to outline measures to assist Ukraine in the process of joining the DSM.

This article provides a brief description of the identified obstacles and bottlenecks, assesses the risks and implications for certain areas of the DSM, and suggests possible ways by which Ukraine's accession to the DSM can be accelerated and the measures to be taken that can assist with this.

The subject of the study is the legal regulation of Ukraine in comparison with the EU's legislation in terms of regulation of the DSM.

[8] Marcus, J. S., Sekut, K., & Zenner, K. (2024, 6. Juni). *A dataset on EU legislation for the digital world*. Bruegel. https://www.bruegel.org/dataset/dataset-eu-legislation-digital-world

Implementation of EU legislation

Since the website of the European Commission does not contain a clear list of EU legal acts, for this part of this report we have used a compilation of such acts by Kai Zenner, expert on the EU Digital Agenda,[9] prepared for Bruegel – Improving economic policy (Table 1).[10]

Table 1: Overview of EU Legislations in the Digital Sector

Applicablelaw	Published in the Official Journal of the European Union.
Innegotation	Proposal by the European Commission entered the legislative process.
Planedinitiative	Mentioned by the European Commission as potential legislative initiative.

Research& Innovation	Industrial Policy	Connectivity	Data& Privacy	IPR	Cybersecurity	Law Enforcement	Trust & Safety	E-commerce & Consumer Protection	Competition	Media	Finance
Digital Europe Programme Regulation, (EU)2021/694	Recovery and Resilience Facility Regulation, (EU)2021/241	Frequency Bands Directive, (EU)2018/1972	ePrivacy Directive, (EC)2002/58, 2017/0003(COD)	Database Directive, (EC)1996/9	Regulation for a Cybersecurity Act, (EU)2019/881, 2023/0108(COD)	Law Enforcement Directive, (EU)2016/680	Product Liability Directive (PLD), (EEC) 1985/374, 2022/0302(COD)	Unfair Contract Terms Directive (UCTD), (EEC)1993/13	EC Merger regulation, (EU)2004/139	Satellite and Cable Directive, (EEC)1993/83	Common VAT system, (EC)2006/112, 2022/0407(CNS)
Horizon Europe Regulation, (EU)2021/695, (EU)2021/764	InvestEU Programme Regulation, (EU)2021/523	Radio Spectrum Decision, (EC)2002/676	European Statistics, (EC)2009/223, 2023/0231(COD)	Community Design Directive, (EC)2002/6, 2022/0391(COD)	Regulation to establish a European Cybersecurity Competence Centre, (EU)2021/887	Directive on combating fraud and counterfeiting of non-cash means of payment, (EU)2019/713	Toys Regulation, (EC)2009/48, 2023/0290(COD)	Price Indication Directive, (EC)1998/6	Technology Transfer Block Exemption, (EU)2014/316	Information Society Directive, (EC)2001/29	Administrative cooperation in the field of taxation, (EU)2011/16
Regulation on a pilot regime for distributed ledger technology, (EU)2022/858	Connecting Europe Facility Regulation, (EU)2021/1153	Open Internet Access Regulation, (EU)2015/2120	General Data Protection Regulation (GDPR), (EU)2016/679	Enforcement Directive (IPR), (EC)2004/48	NIS 2 Directive, (EU)2022/2555	Regulation on interoperability between EU information systems in the field of borders and visa, (EU)2019/817	European Standardization Regulation, (EU)2012/1025	E-commerce Directive, (EC)2000/31	Company Law Directive, (EU)2017/1132, 2023/0089(COD)	Audio-visual Media Services Directive (AVMSD), (EU)2010/13	Payment Service Directive 2 (PSD2), (EU)2015/2366, 2023/0209(COD)
	Regulation on High Performance Computing Joint Undertaking, (EU)2018/1488, 2024/0918(CNS)	European Electronic Communications Code Directive (EECC), (EU)2018/1972	Regulation to protect personal data processed by EU institutions, bodies, offices and agencies, (EU)2018/1725	Directive on the protection of trade secrets, (EU)2016/943	Cybersecurity Regulation, (EU)2019/881	Regulation on terrorist content online, (EU)2021/784	Radio Equipment Directive (RED), (EU)2014/53	Unfair Commercial Practices Directive (UCPD), (EC)2005/29	Market Surveillance Regulation, (EU)2019/1020	Portability Regulation, (EU)2017/1128	Digital Operational Resilience Act (DORA Regulation), (EU)2022/2554
	Regulation on Joint Undertakings under Horizon Europe, (EU)2021/2085, 2022/0033(NLE)	.eu top-level domain Regulation, (EU)2019/517	Regulation on the free flow of non-personal data, (EU)2018/1807	Design Directive, 2022/0392(COD)	Information Security Regulation, 2022/0084(COD)	Temporary CSAM Regulation, (EU)2021/1232, 2022/0155(COD)	eIDAS Regulation (European Digital Identity Framework), (EU)2014/910	Directive on Consumer Rights (CRD), (EU)2011/83	P2B Regulation, (EU)2019/1150	Satellite and Cable II Directive, (EU)2019/789	Crypto-assets Regulation (MiCA), (EU)2023/1114
Decision on a path to the Digital Decade, (EU)2022/2481	Roaming Regulation, (EU)2022/612	Open Data Directive (PSI), (EU)2019/1024	Compulsory licensing of patents, 2023/0129(COD)	Cyber Resilience Act, 2022/0272(COD)	E-evidence Regulation, (EU)2023/1543	Regulation for a Single Digital Gateway, (EU)2018/1724	e-invoicing Directive, (EU)2014/55	Single Market Programme, (EU)2021/690	Copyright Directive, (EU)2019/790	Financial Data Access Regulation, 2023/0205 (COD)
European Chips Act (Regulation), (EU)2023/1781	Union Secure Connectivity Programme, (EU)2023/588	Data Governance Act (DGA Regulation), (EU)2022/868	Standard essential patents, 2023/0133(COD)	Cyber Solidarity Act (Regulation), 2023/0109(COD)	Digitalisation of cross-border judicial cooperation, (EU)2023/2844	General Product Safety Regulation, (EU)2023/988	Regulation on cooperation for the enforcement of consumer protection laws, (EU)2017/2394	Vertical Block Exemption Regulation (VBER), (EU)2022/720	European Media Freedom Act, (EU)2024/1083	Payment Services Regulation, 2023/0210(COD)
Establishing the Strategic Technologies for Europe Platform (STEP), (EU)2024/795	Gigabit Infrastructure Act, (EU)2024/1309	European Data Act (Regulation), (EU)2023/2854			Directive on combating violence against women, 2022/0066(COD)	Machinery Regulation, (EU)2023/1230	Geo-Blocking Regulation, (EU)2018/302	Digital Market Act (DMA Regulation), (EU)2022/1925	Remuneration of musicians from third countries for recorded music played in the EU	Digital euro, 2023/0212 (COD)
European critical raw materials act (Regulation), (EU)2024/1252	New radio spectrum policy programme (RSPP 2.0)	Interoperable Europe Act, (EU)2024/903			Directive for combating sexual abuse and child sexual abuse material, 2024/0035(COD)	AI Act (Regulation), 2021/0106(COD)	Digital content Directive, (EU)2019/770	Regulation on distortive foreign subsidies, (EU)2022/2560		Regulation on combating late payment, 2023/0323(COD)
Net Zero Industry Act, 2023/0081(COD)	Digital Networks Act	Regulation on data collection for short-tem rental, (EU)2024/1028			Digitalization of travel documents	Eco-design Regulation, 2022/0095(COD)	Directive on certain aspects concerning contracts for the sale of goods, (EU)2019/771	Horizontal Block Exemption Regulations (HBER), (EU)2023/1066, (EU)2023/1067		
EUSpace Law		European Health Data Space (Regulation), 2022/0140(COD)				AI Liability Directive, 2022/0303(COD)	Digital Services Act (DSA Regulation), (EU)2022/2065	Platform Work Directive, 2021/0414(COD)		
		Harmonisation of GDPR enforcement procedures, 2023/0202(COD)					Political Advertising Regulation, (EU)2024/900	Single Market Emergency Instrument (SMEI), 2022/0278(COD)		
		Access to vehicle data, functions and resources					Right to repair Directive, 2023/0083(COD)			
		GreenData4all					Consumer protection: strengthened enforcement cooperation			

This study also uses the following as a basis for estimates:

- the European Commission's 2024 report[11] on Ukraine's progress in fulfilling its obligations under the EU–Ukraine Association Agreement and the Deep and Comprehensive Free Trade Area (DCFTA);
- data from the website of Ukraine's Ministry of Digital Transformation on the implementation of the EU–Ukraine Association Agreement;[12]

[9] Zenner, K. (n.d.). *About me*. Digitizing Europe. https://www.kaizenner.eu/about

[10] Zenner, K. (2023). *Digital factsheet #4: A dataset on EU legislation for the digital world*. Digitizing Europe. https://www.kaizenner.eu/_files/ugd/88fe02_76e1a3317443495aabcd5ba4a48f35e6.pdf

[11] European Commission. (2024, October 30). *Ukraine report 2024*. Directorate-General for Neighbourhood and Enlargement Negotiations. https://neighbourhood-enlargement.ec.europa.eu/ukraine-report-2024_en?fbclid=IwY2xjawGQnqJleHRuA2Fl-bQIxMAABHaQT5geEZAKY1XzQVY7um5LuQusK5mPvHFnIByXk3yq7nJHCAMNkiuAJCg_aem_4IhWMwib6w4Ros6K6nVkgg

[12] Ministry of Digital Transformation of Ukraine. (n.d.). *Дорожня карта.* [Roadmap]. https://thedigital.gov.ua/projects/yevrointegraciya/roadmap

- data from the report National Broadband Development Strategy and Implementation Plan Recommendations to the Ministry of Digital Transformation of the Government of Ukraine, prepared by World Bank experts to provide recommendations to the Ministry of Digital Transformation;[13]
- individual expert assessments in the absence of reliable data.

A table comparing EU and Ukrainian legislation in terms of the implementation of the DSM (Annex 1) contains detailed information on the current state of implementation.

The gradations of implementation of EU legal acts contained in the table are marked as follows: not subject to implementation, not implemented, partially implemented, implemented.

All acts mentioned in the table that contain legal provisions implementing EU law have a link to the official website of the Verkhovna Rada of Ukraine (https://zakon.rada.gov.ua/laws), with November 2024 being used as the legislative base.

Overview of the information and communication technologies market

The overview of the information and communication technologies (ICT) market and dynamics for 2020–2023 is taken from available sources.

The State Statistics Service of Ukraine does not publish all data; some of it is not made public, in compliance with the requirements of the Law of Ukraine "On Official Statistics",[14] which ensures confidentiality for some state statistics bodies.

However, open data was available for analysis as follows:

- The number of people employed directly in the IT sector in Ukraine has almost doubled since 2015 to almost 200,000 in 2020[15] (according to the N-iX report).
- According to the World Bank, one job in the ICT sector can create 4.9 jobs in other sectors (assuming the level of technological sophistication of the ICT sector is at the level of this sector in the United States).
- The share of people employed in the service sector in Ukraine increased from 53.9% in 2010 to 61.1% in 2020 (World Bank, ILO).
- According to McKinsey,[16] approximately 15% of the world's workforce (400 million people) may lose their jobs due to the automation of work processes. However, these changes in employment will not lead to long-term mass unemployment, as new types of jobs will be created in various fields (McKinsey).

[13] World Bank. (2020). *Recommendations to the Ministry of Digital Transformation of the Government of Ukraine for a national broadband development strategy and implementation plan 2020–2025.* World Bank. https://documents1.worldbank.org/curated/en/896591621848142525/pdf/A-National-Broadband-Development-Strategy-and-Implementation-Plan-Recommendations-to-the-Ministry-of-Digital-Transformation-Government-of-Ukraine.pdf

[14] Verkhovna Rada of Ukraine. (2022). *Про офіційну статистику.* [Official Statistics]. https://zakon.rada.gov.ua/laws/show/2524-20#Text

[15] Melnytska, Y. (2019, August 30). *Звіт N-iX: Доходи в IT-сфері у 2019 році складуть $5 мільярдів.*[N-iX report: Revenues in the IT sector will amount to $5 billion in 2019.]. Investory News. https://investory.news/zvit-n-ix-doxodi-v-it-sferi-u-2019-roci-skladut-5-milyardiv/

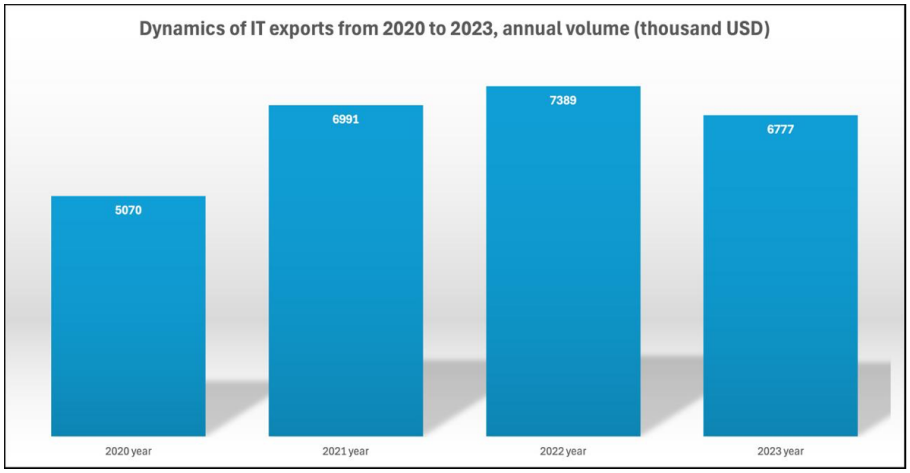
[16] UNIAN. (2017, November 29). *До 2030 року до 800 мільйонів людей можуть втратити робочі місця через роботів – аналітики.* [*By 2030, up to 800 million people could lose their jobs due to robots – analysts*].UNIAN Editorial. https://www.unian.ua/science/2269721-do-2030-roku-do-800-milyoniv-lyudey-mojut-vtratiti-robochi-mistsya-cherez-robotiv-analitiki.html

- According to a McKinsey study, 90% of jobs will require digital skills over the next 10 years.

The export figures[17] (Figure 1) for the IT sector are fairly optimistic – in 2023, they almost reached the level of those recorded before the full-scale invasion. That is, despite mobilisation and a significant number of people having gone abroad, IT services are still in demand.

In 2023, the export of IT services saw a decline for the first time, due to power outages and the cautious attitude of foreign customers towards ordering services from Ukrainian IT specialists (due to the risks of mobilisation and missile attacks).[18]

Figure 1



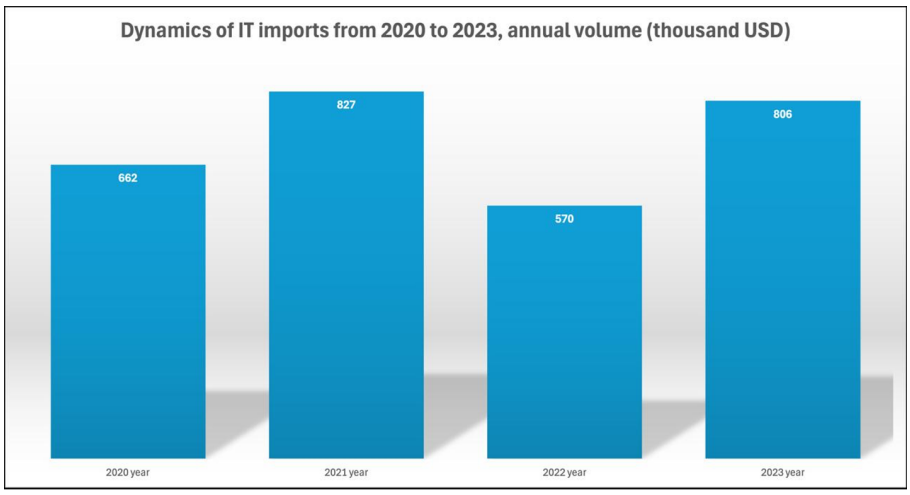
Source: State Statistics Service of Ukraine. Visualisation by the author.

In terms of imports, however, the figures have increased. This dynamic can be attributed to two reasons: a large number of digitalisation projects; and the widespread use of cloud services by the public sector. This applies to the increase in imports of IT services (Figure 2) and electronic communications services (Figure 4), which have both been growing steadily year on year.

[17] Soroka, R. (2023, February 21). *Торік Україна експортувала до ЄС телекомунікаційних послуг на $87,5 млн.* [Last year, Ukraine exported IT services worth 875 million dollars to the EU.] SPEKA. https://speka.media/torik-ukrayina-eksportuvala-do-jes-kompyuternix-poslug-na-875-mln-dolariv-vm8nzp

[18] Agapova, V. (2024, May 15). *«Хліб» замість «металу»: як Україна намагається втриматися на міжнародних товарних ринках.* [“Bread” instead of “metal”: How Ukraine tries to maintain its position in international commodity markets]. Ukrinform. https://www.ukrinform.ua/rubric-economy/3863981-hlib-zamist-metalu-ak-ukraina-namagaetsa-vtrimatisa-na-miznarodnih-tovarnih-rinkah.html

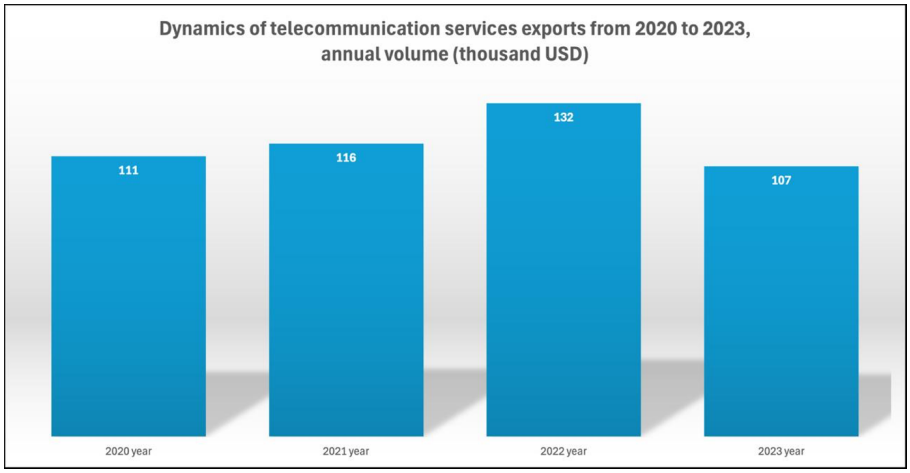
Figure 2



Source: State Statistics Service of Ukraine. Visualisation by the author.

The dynamics of exports of electronic communication services (Figure 3) is explained by the use of Roaming Like at Home (RLAH) services; from 17 June 2024, mobile data roaming tariffs for Ukrainians in any of the 27 EU countries were frozen for the first four months from 17 June 2024 spent in the EU.[19] The tariffs will undergo further review, but for now, by agreement between Ukrainian and EU mobile operators, this roaming has been extended for another 12 months.[20]

Figure 3



Source: State Statistics Service of Ukraine. Visualisation by the author.

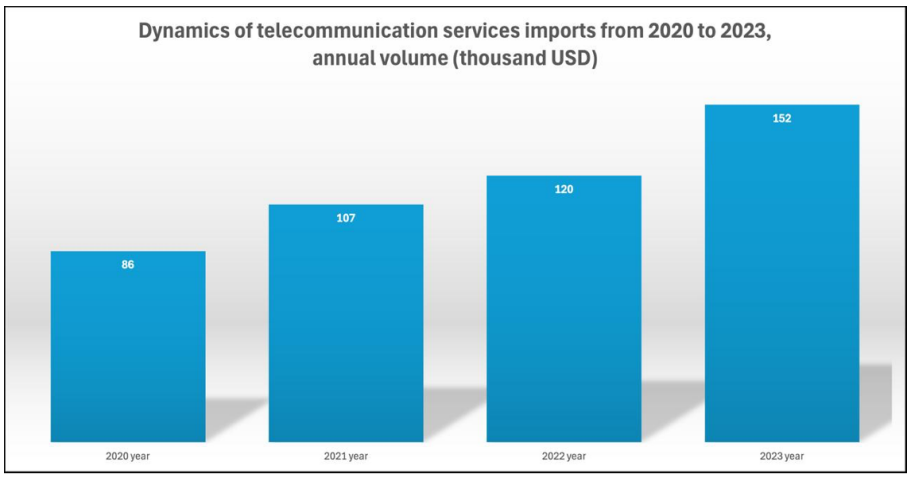
At the same time, Figure 4 shows that imports of telecommunications services increased significantly,[21] which is due to the increase in public sector digitalisation activities (procurement of IT services and cloud services).

[19] Kuzmenko, Y. (2024, June 19). *«Роумінг як вдома» з ЄС діятиме щонайменше 4 місяці — Мінцифри.* [«Roaming like at home» with the EU will last at least 4 months — Ministry of Digital Transformation]. Suspline News. https://suspilne.media/772245-rouming-ak-vdoma-z-es-diatime-sonajmense-4-misaci-mincifri/

[20] European Commission. (2024, July 10). *Commission welcomes a twelve-month roaming extension for affordable calls to and from Ukraine*. European Commission Press. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_3721

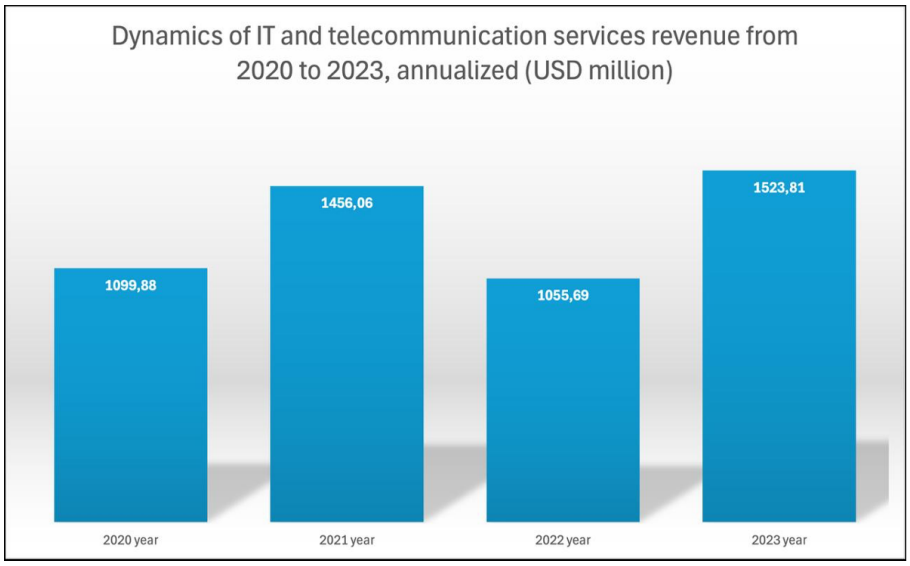
[21] National Bank of Ukraine. (2024). *Платіжний баланс у 2024 році.* [Balance of Payments in 2024.] https://bank.gov.ua/files/ES/State_y.pdf

Figure 4



Source: State Statistics Service of Ukraine. Visualisation by the author.

Figure 5

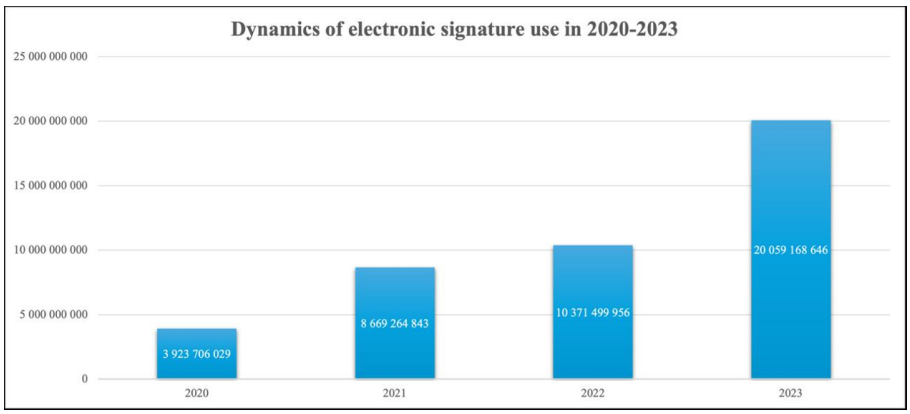


Source: State Statistics Service of Ukraine. Visualisation by the author.

The war and emigration of Ukrainians abroad had a significant impact on the electronic trust services sector,[22] which grew by almost 200% compared to the pre-war period. This is because such electronic services are often the only means by which Ukrainian citizens can access financial and public services, or carry out business activities while outside Ukraine. However, these figures did not translate into an increase in revenue, as most of these services are provided by banking institutions, and the cost of them is included in the cost of customer service. Furthermore, such electronic signature services are generally provided free of charge. An exception is the Ukrainian app Diia, which is operated by an enterprise within the Ministry of Digital Transformation, and which charges a fee for this service. Despite this, the Diia signature is in the greatest demand – the number of qualified electronic signature certificates issued by Diia is 17.9 million.

[22] Central Certification Authority of Ukraine. (n.d.). *Оцінка стану розвитку сфери електронних довірчих послуг.* [Assessment of the development of electronic trust services]. https://czo.gov.ua/development

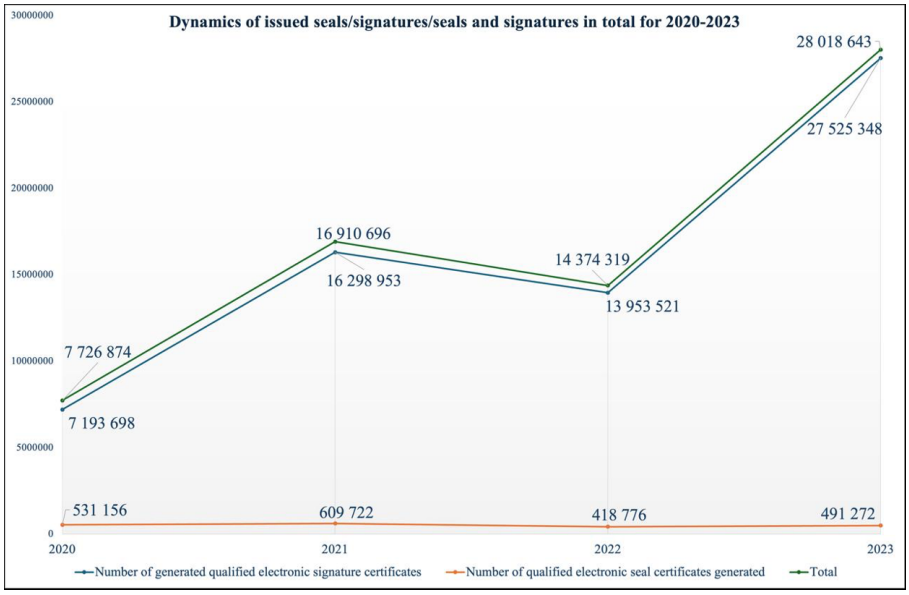
Figure 6



Source: State Statistics Service of Ukraine. Visualisation by the author.

Figure 7 shows the dynamics of issued electronic signatures, and qualified and ordinary seals, before wartime and during the full-scale invasion. Given these statistics, we can draw some conclusions: the approximate number of people who have digital skills and use digital services in their daily activities, both civilian and business, is 15–25 million. That is, the potential for increasing the use of various digital services is high.

Figure 7



Source: State Statistics Service of Ukraine. Visualisation by the author.

With regard to European integration of electronic identification and electronic trust services, we can see that most of the electronic signature certificates generated are based on international standards. However, the usage of the national standard is also growing (Table 2).

Table 2

	2020	2021	2022	2023
Number of qualified electronic signature certificates generated using national standards	3 999	2 087	116 161	8 385 392
Number of qualified electronic signature certificates generated using international standards	7 189 699	16 296 864	13 804 795	19 139 956

Source: https://czo.gov.ua/development. Visualisation by the author.

Joining the EU Digital Single Market – status, risks and threats

Before adopting the terminology "digital economy", Ukraine defined this area as the "information society"[23] and had made certain achievements in this area, including drafting dedicated legislation and developing strategic documents.[24] This segment has always been a priority for Ukraine, demonstrated by its past successes in creating technological know-how and innovations.[25]

Given Ukraine's potential in terms of ICT and the powerful impact this could have on increasing the country's competitiveness and welfare, the reform of the telecommunications infrastructure (electronic communications) and the development of the information society are among the main priorities for the implementation of the Sustainable Development Strategy "Ukraine – 2020".[26] Ukraine's readiness in terms of achieving the UN Sustainable Development Goals for Ukraine by 2030 is determined by the Decree of the President of Ukraine of 30 September 2019, No. 722/2019 "On the Sustainable Development Goals of Ukraine for the period up to 2030".[27]

Cooperation between Ukraine and the EU in the field of information society development (Chapter 14 of Title V of the EU–Ukraine Association Agreement) is focused upon:

- the implementation of national information society strategies;
- developing a comprehensive legal framework for electronic communications; and
- expanding Ukraine's participation in EU research programmes in the field of ICT.

Hence, digital transformation has been identified as one of the government's priorities, and it spans all areas of government activity. To this end, the position of Deputy Minister for Digital Transformation has been created for all ministries and other central executive authorities, as well as for regional state administrations.[28]

The ratification of the EU–Ukraine Association Agreement by the Verkhovna Rada and the European Parliament also opened up potential opportunities for Ukraine to implement European standards and integrate into the DSM, as reflected in the Government of Ukraine's Programme.[29]

[23] Verkhovna Rada of Ukraine. (2007). *ЗАКОН УКРАЇНИ Про Основні засади розвитку інформаційного суспільства в Україні на 2007-2015 роки*. [Law of Ukraine On the Basic Principles of the Development of the Information Society in Ukraine for 2007–2015]. https://zakon.rada.gov.ua/laws/show/537-16#Text

[24] Cabinet of Ministers of Ukraine. (2013, May 15*). РОЗПОРЯДЖЕННЯ Про Основні засади розвитку інформаційного суспільства в Україні на 2007-2015 роки*. [Order On Approval of the Strategy for the Development of the Information Society in Ukraine]. https://zakon.rada.gov.ua/laws/show/386-2013-%D1%80#Text

[25] V.M. Glushkov Institute of Cybernetics of the National Academy of Sciences of Ukraine. (n.d.). *Історія.* [History]. https://incyb.kiev.ua/institut/about-institute/istoriya

[26] President of Ukraine. (2015, January 14). *УКАЗ ПРЕЗИДЕНТА УКРАЇНИ Про Стратегію сталого розвитку «Україна - 2020».* [Decree of the President of Ukraine On the Sustainable Development Strategy «Ukraine - 2020»]. https://www.president.gov.ua/documents/52015-18245

[27] President of Ukraine. (2019, September 30). *Про Цілі сталого розвитку України на період до 2030 року.* [On the Sustainable Development Goals of Ukraine until 2030]. https://zakon.rada.gov.ua/laws/show/722/2019#Text

[28] Cabinet of Ministers of Ukraine. (2020, March 3). *Деякі питання діяльності підрозділів з питань цифрового розвитку, цифрових трансформацій і цифровізації центральних та місцевих органів виконавчої влади та заступників керівників центральних органів виконавчої влади, обласних, Київської та Севастопольської міських державних адміністрацій з питань цифрового розвитку, цифрових тһрансформацій і цифровізації.* [Some issues related to the activities of digital development, digital transformation and digitalization units of central and local executive authorities and deputy heads of central executive authorities, regional, Kyiv and Sevastopol city state administrations on digital development, digital transformation and digitalization]. https://zakon.rada.gov.ua/laws/show/194-2020-%D0%BF#Text

[29] Cabinet of Ministers of Ukraine. (2020, June 12). *ПОСТАНОВА Про затвердження Програми діяльності Кабінету Міністрів України.*[Resolution On Approval of the Program of Activities of the Cabinet of Ministers of Ukraine] https://zakon.rada.gov.ua/laws/show/471-2020-%D0%BF#Text

In August 2018, Ukraine developed and submitted to the EU Party (The Directorate-General for Communications Networks, Content and Technology of the European Commission (also called DG CONNECT)) the Strategy for Integration into the EU Digital Single Market (the "Roadmap") together with the Action Plan for the Roadmap,[30] as provided for in Annex XVII of the Association Agreement.

On 4 October 2019, the Verkhovna Rada approved the Programme of Activities of the Cabinet of Ministers of Ukraine,[31] whose goals include Ukraine joining the EU digital space and meeting the criteria for EU membership. The programme also provided, at the level of the state apparatus, for total digitisation of management and information exchange processes.

The purpose of the Roadmap **for Ukraine's integration into the EU's DSM by 2023** is to introduce the principle of reciprocity to the internal market regime in certain sectors, as well as to fulfil Ukraine's obligations in the field of electronic communications through the consistent adaptation of Ukrainian legislation to EU standards between 2018 and 2023. The Roadmap also provides for the adoption, by the Association Committee in Trade configuration, of a decision on the **gradual mutual granting of access to the digital market**. This implies the elimination of restrictions on the provision of services in a certain sector by a legal entity in Ukraine or EU member states, regardless of whether it is established in Ukraine or the European Union, i.e. the same rules and no additional obstacles. (EU).

The Roadmap was updated in 2020–2021,[32] taking into account the recommendations made by the European Commission, as well as revolutionary changes in EU law that were introduced as a mechanism for achieving the goal of digital transformation of the EU by 2030. The Roadmap also provides for the implementation of the latest EU digital norms and standards in Ukraine – at least 75 acts of EU law (25 basic and 50 implementing acts). However, this is not exclusive to Ukraine; 2021 was a turning point for EU law, with most directives (advisory for EU Member States) being revised and replaced by regulations and acts, which are binding and require much less implementation at the national level. The EU is thus significantly accelerating a single legal framework for digital transformation, based on three main pillars – solidarity, prosperity and resilience – which will ensure that the EU gives its citizens, businesses and governments control over digital transformation.

The 141 measures of the Roadmap for Ukraine's Integration into the EU's DSM by 2023 are **implemented by 29 public authorities**. Meanwhile, the European Commission has initiated a multi-phase process to assess the state of implementation of Ukraine's existing commitments, administrative capacity and legislation. The recommendations issued as part of this process were provided by the relevant Directorates-General of the European Commission in the Roadmap Assessment and the On-Site Assessment of the commitments on telecommunication services under the EU–Ukraine Association Agreement. Accordingly, this Roadmap now includes measures to implement these recommendations.[33]

[30] This Strategy was developed within the framework of the mechanisms set out in Annex XVII of the EU–Ukraine Association Agreement and did not require it to be enshrined as an act of Ukrainian or EU law. It was further transformed in the European Integration Plan and other strategic documents approved by the government and the Verkhovna Rada of Ukraine.

[31] Cabinet of Ministers of Ukraine. (2020, June 12). *ПОСТАНОВА Про затвердження Програми діяльності Кабінету Міністрів України.* [Resolution On Approval of the Program of Activities of the Cabinet of Ministers of Ukraine]. https://zakon.rada.gov.ua/laws/show/471-2020-%D0%BF#Text

[32] Ukraine. (2021, November 22). *СТРАТЕГІЯ інтеграції України до Єдиного цифрового ринку Європейського Союзу («Дорожня карта»).* [Strategy for integration into the EU digital single market («Roadmap»)]. https://docs.google.com/document/d/1XgGb7AWSs7Ktl6Pl5xuYDpLFV0mtOTSN/edit?tab=t.0#heading=h.30j0zll

[33] Ministry of Digital Transformation of Ukraine. (n.d.). *Дорожня карта*. [Roadmap]. https://thedigital.gov.ua/projects/yevrointegraciya/roadmap

In December 2019, the Ukrainian side of the EU–Ukraine Civil Society Platform, a body established by the EU–Ukraine Association Agreement itself (Article 469), also prepared a report titled "Ukraine's Integration into the EU Digital Single Market: Challenges, Opportunities and Barriers",[34] which contained recommendations by experts on the development of Ukraine's digital economy, including:

- To provide for expenditures in the state budget for the implementation of the action plan of the Concept for the Development of the Digital Economy and Society of Ukraine for 2018–2020, and to adopt a government decision to launch the Digital Transformation Fund.
- To consider ways to support European integration and digital market initiatives via the state budget.
- To implement digital transformation measures at the political and strategic level, based on government targeted programmes, and relevant measures in sector-specific strategies, in particular in the action plan for the implementation of the Innovation Development Strategy[35].
- To clearly define mechanisms for coordinating and monitoring the implementation of digital transformation activities and projects by various departments of central government, and for the timely dissemination of information about important international events and projects.
- To develop legislation to implement the General Data Protection Regulation (GDPR) in Ukraine, simultaneously with the development of amendments to the legislation on access to public information and movement of non-personal data.
- To develop a national roadmap for the harmonisation of eHealth systems among the Easter Partnership countries in line with the EU norms in four areas of action:

  - regional eHealth networks; policy and governance; interoperability and standards; and

  - electronic services for patients and data protection standards.
- The Cabinet Ministers of Ukraine (CMU) should take measures to develop national digital infrastructures and access to European ones, in particular, the review and approval of the draft Concept for the Development of Ukrainian e-Infrastructures until 2022.
- To provide a mechanism for state regulation of the process of harmonisation with the European Cloud Initiative, including Ukraine's participation in the creation of the European Open Science Cloud and the formation of a national initiative.
- To join the coordinated plan to promote the development and use of artificial intelligence (AI) in the EU.

Some of the above recommendations were implemented in 2020–2021, but some remain unimplemented. For example, the forecasted budget expenditure for digitalisation measures remains unrealised, so these measures are usually funded by international technical assistance from the EU, Special Economic Zones (SEZs), and the United States.

[34] EU-Ukraine Civil Society Platform. (2019, December 3). *Інтеграція України до Єдиного цифрового ринку Європейського Союзу: виклики, можливості та бар'єри*. [Integration of Ukraine into the European Union's Digital Single Market: Challenges, Opportunities, and Barriers]. https://eu-ua-csp.org.ua/media/uploads/Integration%20to%20EU%20DSM_Ukr%20side_UA.pdf

[35] Verkhovna Rada of Ukraine. (2019, July 10). *Про схвалення Стратегії розвитку сфери інноваційної діяльності на період до 2030 року.* [On approval of the Strategy for the Development of the Innovation Sector for the period up to 2030]. https://zakon.rada.gov.ua/laws/show/526-2019-%D1%80#Text

Another problematic aspect of the implementation of the strategic objectives is the lack of constant measurement of objectives, which is the result of military operations (the State Statistics Service has not collected data from enterprises for the last two years) and the lack of approved indicators for collecting of metrics.

Thus, measurement of indicators and financing are unresolved issues for the promotion of strategic goals.

The next task that has not yet been resolved is the prioritization of tasks for the Strategy implementation and their coordination with stakeholders.

On the eve of the EU–Ukraine Summit in December 2023, the Government of Ukraine met with the College of European Commissioners and the President of the European Commission Ursula von der Leyen, where, among other things, they discussed the implementation of the Roadmap.[36] As a result of that meeting, the Ministry of Digital Transformation announced the issues it will work on jointly with the EU regarding the DSM, namely:

- updating the Roadmap for Ukraine's integration into the DSM based on the EU's Digital Decade 2030 Programme;
- the EU assessment of Ukraine's electronic trust services sector with the aim of achieving mutual recognition;
- recognition of Ukrainian digital documents in the EU;
- Ukraine's integration into the EU's Digital Economy and Society Index (DESI);
- the launch of 5G technology and Ukraine joining the EU's 5G transport corridors;
- approval of the updated Annex XVII-3, which will ensure internal market treatment in Ukraine's telecommunications sector and bring it closer to the single roaming space with the EU.

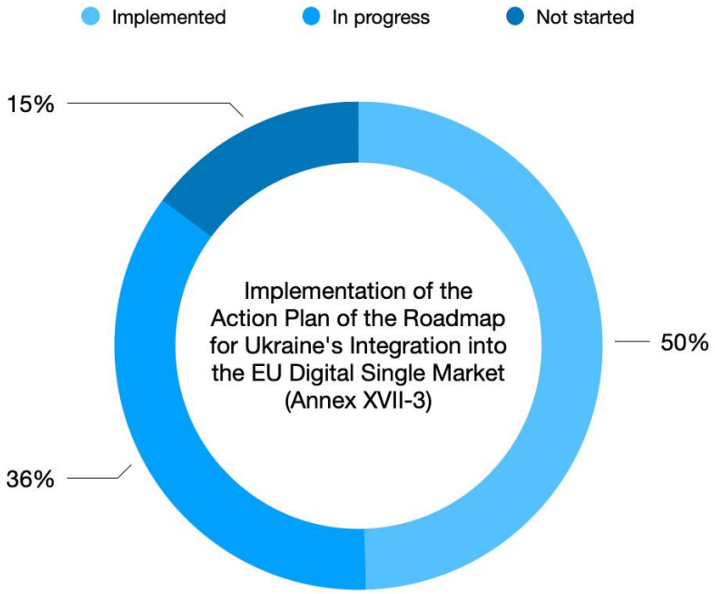
The Roadmap has a dedicated website[37] and implementation is constantly monitored. It should be noted that the statistics regarding implementation are based on a self-assessment by the Ministry of Digital Transformation and other public authorities and may not coincide with the opinions of experts and the European Commission. This is because most of the EU legal acts to be implemented in Ukraine do not have an **acquis communautaire** table, nor have they undergone a preliminary assessment by the structural units of the European Commission. Therefore, there is no effective means for confirming the extent to which the Roadmap activities have been completed.

According to the analysis of the Ministry of Digital Transformation, Ukraine is currently at the level on 50% of implementation of EU law on 50% (Figure 8):

[36] Ministry of Digital Transformation of Ukraine. (2023, February 3). *Наближаємось до цифрового безвізу з ЄС: результати зустрічі Уряду України з Колегією Єврокомісії*. [We are approaching digital visa-free travel with the EU: Results of the meeting between the Ukrainian government and the European Commission]. https://thedigital.gov.ua/news/nablizhaemos-do-tsifrovogo-bezvizu-z-es-rezultati-zustrichi-uryadu-ukraini-z-kolegieyu-evrokomisii

[37] Ministry of Digital Transformation of Ukraine. (n.d.). *Дорожня карта*. [Roadmap]. https://thedigital.gov.ua/projects/yevrointegraciya/roadmap

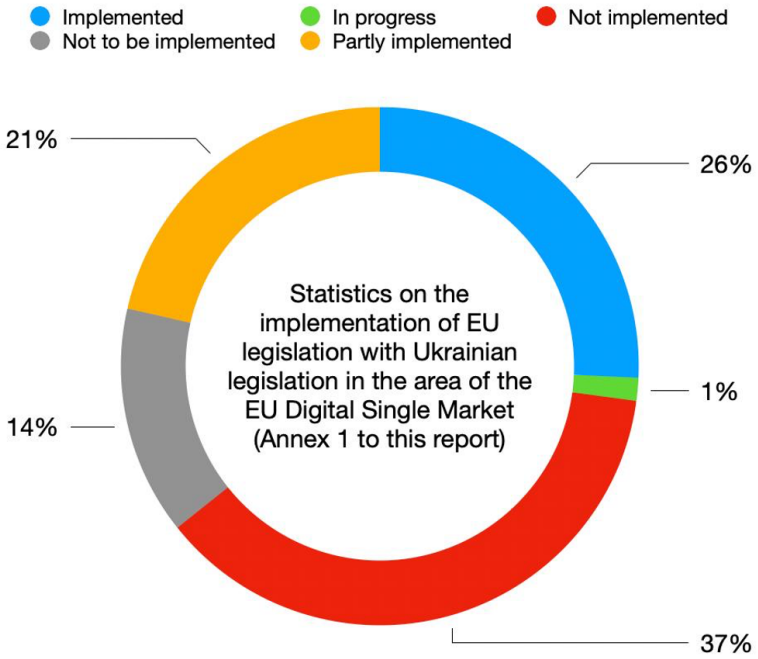
Figure 8



Source: https://thedigital.gov.ua/projects/yevrointegraciya/roadmap

However, if we consider the dynamics of implementation according to Kai Zenner's list of current EU legal acts, the situation appears somewhat different (Figure 9):

Figure 9



Source: Compiled by the author on the basis of Annex 1 "Comparative Table of Implementation of EU Law Acts with Ukrainian Legislation in the Part of the EU Digital Single Market"

The next government comprehensive strategic document that set goals in relation to the digital economy was the National Economic Strategy for the period up to 2030, approved by

the CMU on 3 March 2021, No. 179.[38] The goal of this Strategy is to create opportunities for Ukrainians as citizens, as entrepreneurs and as investors. It defines the guidelines, principles and values for the development of the digital economy: an efficient digital service state and crowded state institutions (development of the digital economy being one of the drivers of Ukraine's economic growth).

In furtherance of the Strategy's goals, the digital economy has been defined, with a separate vision and strategic measurable goals.

The vision is based on the following:

- digital technologies as the basis of Ukraine's prosperity;
- a world where new opportunities for Ukraine are created;
- a transformation in Ukraine towards a better life, and improved work, creativity and education.

The strategic goals include:

- acceleration of economic activity;
- transformation of the resourced sectors of the economy to become highly productive, intelligent and competitive;
- transforming the increasing standard of living for consumers into something efficient, modern, and comfortable;
- creation of new opportunities for the realisation of human capital, and the development of innovative, creative and digital industries and businesses.

The Strategy also includes an analysis of the digital economy, including conclusions and key aspects. However, there is a gap in this area: there is no primary source of figures that can be used as a starting point for achieving the goals in 2030, either because they are absent or because they have not been made public. Therefore, the usual basis for analysing the digital economy, prepared in accordance with the methodology recommended by international organisations or the European Commission, is not available: "Official statistics do not define the scope of the digital economy in Ukraine (in particular, the ratio of the digital economy to the country's total GDP). Currently, the digital economy is calculated in only a narrow sense (information and computer services), with no accounting of high-tech products, digitalised services, etc."[39]

At the same time, the EU has updated its strategic documents and Decision (EU) 2022/2481 of the European Parliament and of the Council of December 14, 2022, establishing a Digital Decade 2030 policy framework. The Decision defines tasks for each EU Member State: by 9 October 2023, each Member State must develop (or revise in accordance with the goals set by the Digital Compass) and submit to the European Commission **a national roadmap that should contribute to the achievement of the policy goals at the EU level, taking into account sectoral initiatives and promoting coherence with them**.

[38] Cabinet of Ministers of Ukraine. (2021, March 3). *Про затвердження Національної економічної стратегії на період до 2030 року.* [On Approval of the National Economic Strategy until 2030]. https://zakon.rada.gov.ua/laws/show/179-2021-%D0%BF#Text

[39] Verkhovna Rada of Ukraine. (2021, March 3). *Про затвердження Національної економічної стратегії на період до 2030 року*. [National Economic Strategy for the period up to 2030]. Page 253. https://zakon.rada.gov.ua/laws/show/179-2021-%D0%BF#Text

Every national roadmap should include the following:

(a) the main planned, adopted and implemented policies, measures and actions that contribute to the achievement of the overall objectives and digital goals;

(b) national projected trajectories that contribute to the achievement of relevant digital targets that can be measured at the national level, while the regional dimension is reflected, where possible, in national roadmaps;

(c) the timeframe and expected impact on the achievement of the overall objectives and digital targets of the planned, adopted and implemented policies, measures and actions referred to in paragraph (a).

Policies, measures, and actions should indicate one or more of the following:

(a) directly applicable EU or national law;

(b) one or more commitments made to adopt these policies, measures or actions;

(c) allocated state financial resources;

(d) mobilised human resources;

(e) any other important factors related to the achievement of the overall objectives and the digital goals they represent.

In their national roadmaps, Member States provide an estimate of the investments and resources needed to ensure the achievement of the overall and digital goals, as well as a general description of the sources of these investments – private or public – including, where applicable, the planned use of EU programmes and instruments. National roadmaps may include proposals for multinational projects, and Member States can also create regional roadmaps aligned with their national roadmaps to ensure that common goals and digital targets are in place across their territory.

However, some caution should be exercised in relation to all of Ukraine's European integration activities. Some stakeholders (MPs), as well as representatives of the sectors to be integrated, have expressed deep concern about the lack of an accession date as well as more general doubts surrounding accession. Although Ukraine's potential accession in 2030 has been[40], this date depends on the proper implementation of measures by Ukraine in the period from 2025 to 2027, and the resistance of non-EU supporters could pose a serious risk to implementation within that period.

[40] Hotyn, R. (2023, November 8). *Чи вступить Україна до ЄС у 2030 році?* [Will Ukraine join the EU in 2030?]. Radio Svoboda. https://www.radiosvoboda.org/a/ukrayina-chlenstvo-v-yees-2030-rik/32675010.html

There has also been serious opposition to some of the integration measures,[41],[42] on the part of businesses and certain authorities that are in need of reform, who perceive potential threats to national interests. In addition, assessments of accession vary between experts.[43, 44, 45]

In terms of progress of Ukraine's legislative integration with respect to the digital economy, the government has carried out an initial assessment: out of around 28,000 EU regulatory documents, 2,739 require implementation into Ukrainian legislation, and the rest do not require approval because they are recommendations, protocols, exchanges of letters, and other similar documents. Of the 2,739 acts, 1,625 have been adopted, and while 2,739 acts seems a small number compared to the original list of 28,000, Ukraine has only managed to implement 1,625 acts in the 10 years since the EU–Ukraine Association Agreement was signed. At this rate, it will take Ukraine another 17 years to implement all the acts. This was an unacceptable timescale for many and led to a review of the government structure and the strengthening of the European integration team by the Ministry of Justice, which is now subordinated to the Deputy Prime Minister for European and Euro-Atlantic Integration.[46]

The speed of implementation of European norms will also directly affect the likelihood of Ukraine joining the DSM. For Ukraine, there are a number of benefits to the adoption of these norms and becoming part of the DSM:

- Legal entities and individuals would have no restrictions on their activities in the digital economy.
- Ukraine's competitive advantages (avoidance of double taxation, cheaper and more educated labour force for creating digital services, cheaper electronic communication services) would increase GDP.
- People would be able to buy and sell goods on the single digital market without leaving their homes, using cards issued by Ukrainian banks, paying taxes electronically (if necessary), and receiving deliveries on time without the use of intermediary services.
- Ukrainian legal entities that are not registered in the EU could carry out activities in the EU, significantly reducing the cost of maintaining a representative office in the EU.
- Ukrainian scientists could use EU achievements in scientific research.
- Ukrainians could use cloud services provided not only by Ukrainian operators but also by large digital service providers with their data centres in the EU.

---

41 Hloba, D. (2024, May 23). *Адаптація – не клонування: як депутати хочуть витратити мільярди на захист персональних даних* [Adaptation is not cloning: how MPs want to spend billions on personal data protection]. Mind.ua. https://mind.ua/openmind/20273976-adaptaciya-ne-klonuvannya-yak-deputati-hochut-vitratiti-milyardi-na-zahist-personalnih-danih?fbclid=IwY2xjawKFlWdleHRuA2FlbQIxMABicmlkETFkR0x4Zmp0WURWNmwySzlGAR5nmAndNP7yk_kJTd9cKr2mZ3mg3wlGofWkfkmEYuYikSr2TXjC2uZsyTekSQ_aem_E-coEPjVZ09tlAc-NehFSQ

42 I-UA.tv. (2025, February 20). *У законопроєктах № 8087, 11220 та 12207 заховано знищення національного бізнесу — Петухов.* [The legislative drafts No. 8087, 11220, and 12207 contain provisions that could destroy national business, says Pietukhov]. https://i-ua.tv/news/90097-u-zakonoproiektakh-8087-11220-ta-12207-zakhovano-znyshchennia-natsionalnoho-biznesu-pietukhov

43 Kosse, I., & Vdovychenko, V. (2023, December 26). *Скільки коштує вступ України в ЄС*. [How much does Ukraine's EU accession cost?]. LB.ua. https://lb.ua/world/2023/12/26/590527_skilki_koshtuie_vstup_ukraini_ies.html

44 Razumkov Center. (2022). *УКРАЇНА НА ШЛЯХУ ДО ЄС: РЕАЛІЇ І ПЕРСПЕКТИВИ*. [UKRAINE ON THE WAY TO THE EU: REALITIES AND PROSPECTS]. https://razumkov.org.ua/images/journal/NSD187-188_2022_ukr_full.pdf

45 Communication team of the Office of the Vice Prime Minister for European and Euro-Atlantic Integration. (2020, December 12). *Економічні переваги від інтеграції у Єдиний цифровий ринок ЄС – результати дослідження.* [Economic benefits of integration into the EU's Digital Single Market - research findings]. https://eu-ua.kmu.gov.ua/news/ekonomichni-perevagy-vid-integratsiyi-u-yedynyj-tsyfrovyj-rynok-yes-rezultaty-doslidzhennya/

46 Ukrinform. (2024, September 5). *Стефанішину призначили віцепрем'єркою з питань євроінтеграції - міністеркою юстиції.* [Stefanishyna appointed Deputy Prime Minister for European Integration and Minister of Justice]. https://www.ukrinform.ua/rubric-polytics/3902328-stefanisinu-priznacili-vicepremerkou-z-pitan-evrointegracii-ministrom-usticii.html

- In certain areas of the digital market, most disputes would be resolved by regulators (electronic communications, cloud services, cybersecurity, data protection), with only a small number of claims going to court.
- A market for new types of services would be created, which could provide additional jobs for Ukrainian specialists.
- Given that the EU market today requires a large number of data protection specialists, Ukrainian universities and certified training courses could provide a sufficient number of employees if a national programme is directed towards this.
- Updated software would create a market for technical support, added value within the country, the ability to make prompt government decisions in support of the state's strategic course, and exchange of information with EU authorities.
- Citizens, businesses and international partners would have timely access to public information and open data and, based on the use of such data, could create additional services, make decisions and exercise public control over the activities of the government and local authorities.
- Proper protection of individuals' data would increase the level of trust in the government and its decisions.

Although Ukraine has declared at a high political level that it is focusing all its efforts on European integration, and despite it having enshrined in its Constitution 2019 the "irreversibility of Ukraine's European and Euro-Atlantic course" (Decree of the President of Ukraine No. 155/2019 "Issues of European and Euro-Atlantic Integration" of 20 April 2019), there remain, as mentioned above, some doubts among businesses, MPs, and some government officials about the reality of joining the EU.

However, Ukraine's integration into the EU's internal markets, including the digital economy, is one of the key priorities to ensure the "irreversibility" mentioned above.

Given the large number of declarative documents on European integration, Ukraine still does not have its own comprehensive digital market strategy, although the vast majority of EU countries have developed their own comprehensive digital transformation policies, digital market strategies, etc. The development of the digital economy is monitored on an ongoing basis in accordance with the DESI methodology.[47]

The EU–Ukraine Joint Work Plan on Electronic Trust Services has recently been approved, with the prospect of concluding an agreement based on alignment with EU legislation and standards.

Both European and Ukrainian experts have repeatedly emphasised that the eIDAS Regulation explicitly states that an appropriate level of personal data protection and cybersecurity must be maintained. From the moment Ukraine enters into the relevant international agreement with the EU and becomes part of the pan-European system of electronic trust services, the country must ensure the transposition of the GDPR into law, apply it in practice and establish a supervisory authority in accordance with the GDPR and Convention 108+.

As for the introduction of electronic trust services in accordance with European legislation, full implementation requires:

[47] European Commission. (2024, July 2). *DESI 2024 methodological note.* https://ec.europa.eu/newsroom/dae/redirection/document/106717

- establish the level of reliability of electronic identification means for foreign providers of electronic trust services at the legislative level;
- to finalize the mechanisms for establishing liability for persons who cause damage to users of electronic trust services;
- determine who will bear the burden of proof in proving criminal intent or negligence of electronic trust service providers.

Currently, Ukraine has separate strategies for the development of electronic communications and integration into the EU digital market, as well as an economic strategy that incorporates aspects of the digital economy. However, it still lacks:

- its own digital market development strategy;
- proper calculations that can help assess the advantages and disadvantages of joining the DSM;
- a comprehensive view of its own legislative transformation;
- an overview of synchronisation in terms of deregulation and European integration;
- strategic management of digital transformation in compliance with cybersecurity;
- the development of public digital services;
- an examination of the threats and risks to Ukrainian small- and medium-sized enterprises (and these aspects have not been analysed by previous studies).

In addition, as touched on above, there is a particular lag in the development of legislation to protect the rights of consumers of digital services, given that presently the burden of proof lies with the consumer when fraudsters use a digital identity. These rights include the right to privacy, the right to be informed about services, and the right to compensation for damages caused by cybercriminals.

With respect to 5G implementation, this is not yet possible in Ukraine, due to the cost of licences and the need to review the use of radio frequency spectrum, which is complicated by Russia's military aggression.[48] To avoid the risks associated with the introduction of 5G high-speed networks, it will be necessary to revise standards and technical regulations to ensure the cybersecurity of these networks, while a national strategy for the security of networks and information systems is also required for the implementation of the NIS2 Directive, in accordance with ENISA[49] recommendations.

[48] Myronovych, V. (2023, March 14). *Коли в Україні з'явиться повноцінний 5G і що це означає для ринку.* When will Ukraine have full-fledged 5G, and what does this mean for the market? SPEKA. https://speka.media/koli-v-ukrayini-zyavitsya-povnocinnii-5g-i-shho-oznacaje-dlya-rinku-rozblokuvannya-castot-3400-3600-mgc-9wd63p?utm_source=google&utm_medium=cpc&utm_campaign=20972733776&gad_source=1

[49] European Union Agency for Cybersecurity. (n.d.). *ENISA.* https://www.enisa.europa.eu/

Conclusions and recommendations

In view of the above, the following recommendations are offered to accelerate efforts to join the EDC.

1. Prioritise the implementation of EU legal acts and develop a plan for the preparation of draft laws to be considered in order to develop Ukraine's digital market, in turn enabling it to join the EU Digital Single Market (DSM) and the Initiative to promote the development of a resilient digital economy.

Since there are already more than a hundred EU acts that need to be implemented, and some bodies that are supposed to implement them have not yet been established, a more targeted approach should be taken: realistic plans should be put in place to implement the acts and to prioritise the opening of markets in the years before Ukraine joins the EU.

2. Introduce ongoing monitoring of implementation based on the DESI index[50] – a methodology and indicators that track progress in the EU Member States in the field of digital technologies.

Measuring Ukraine's achievements via the European Digital Economy Index (DESI) would help to develop policies regarding, and an understanding of Ukraine's contribution to achievements relating to, digital transformation.

3. Update the national Roadmap, which should facilitate the achievement of policy objectives at the EU level, taking into account sectoral initiatives and promoting coherence with them, given the increasing number of European acts regulating the digital economy, with special attention paid to prioritising measures and gradual integration into the EU DSM.

The European Commission plans to support EU Member States in preparing their national roadmaps, which should help achieve a common design across the EU in the future.

Perhaps, given the decision on Ukraine's candidacy for EU membership and its determination that it can accelerate the implementation of its integration into the DSM, the European Commission could facilitate support for Ukraine in revising its national strategic documents and developing a roadmap in accordance with Decision (EU) 2022/2481, and, provided that the obligations of the EU–Ukraine Association Agreement are fulfilled under the "more-for-more" scenario, could provide additional financial support for Ukraine in its journey to EU membership.

Without a fully-fledged roadmap based on the EU's proposed structure, Ukraine's path to integration into the DSM and the measurement of progress in this regard will be difficult.

4. Determine the mechanisms for mutual recognition of standards, which is a prerequisite for joining the EU, or the timeline for transition to European standards in the digital economy (electronic trust services, cybersecurity, electronic communications, payment services, infrastructure resilience, etc.)

One of the most difficult issues will be the transition from national to European regulation in terms of standardisation and conformity assessments. Currently, Ukraine uses national standards, and mutual recognition is complicated by the absence of an agreement with the EU regulating this issue.

[50] European Commission. (n.d.). *The Digital Economy and Society Index (DESI)*. https://digital-strategy.ec.europa.eu/en/policies/desi

However, the results of conformity assessments (test reports, conformity documents, etc.) in relation to technical regulations conducted in other countries are currently recognised and accepted in Ukraine in accordance with the provisions of the current international treaties, which provide for mutual recognition of conformity assessment results.51

It is unlikely that it would be appropriate to conclude a separate agreement after Ukraine's application for accession has been submitted, but the Association Agreement (Article 56) obliges Ukraine only to deploy conformity assessment for industrial goods, while there are no such obligations in the digital economy (or, as the Agreement calls it, "information society services"):

"Ukraine shall, in accordance with the schedule of Annex III to this Agreement:

1. implement the relevant provisions of the EU acquis into its legislation;

2. implement the necessary administrative and institutional reforms required for the implementation of this Agreement in accordance with the Agreement on Conformity Assessment and Acceptance of Industrial Products (hereinafter referred to as the ACAA Agreement) referred to in Article 57 of this Agreement;

3. establish an effective and transparent administrative system necessary for the implementation of this Chapter."[52]

5. Address the issue of proper implementation of Article 139 of the Association Agreement, namely e-commerce development, subject to full compliance with the highest international standards of information protection to ensure the trust of e-commerce users.

Protection standards are based on two systems – cybersecurity management and personal data protection. Both systems in Ukraine will require complete restructuring and development in line with European standards (the main ones are the NIS2 Directive, GDPR and Convention 108+).

5.1. Cybersecurity in Ukraine is considered a national security issue, and the body that manages this issue is an institution that belongs to the defence sector (military) – the State Service for Special Communications and Information Protection (the SSSCIP). Hence the SSSCIP's vision of building Ukraine's cybersecurity system is seen through the prism of its military functions.

Currently, the SSSCIP does not meet the following criteria of the Cybersecurity Act, which regulates cybersecurity governance in the EU: "each national cybersecurity certification body shall be independent of the entities it supervises in terms of its organization, funding decisions, legal form and decision-making."53

Most digitalisation measures are approved by the government, while the Ministry of Digital Transformation in the civilian sector and the Ministry of Defence in the defence sector implement the measures. This raises the question whether the SSSCIP will be able to make an inde-

[51] Verkhovna Rada of Ukraine. (2015, January 15). *ЗАКОН УКРАЇНИ Про технічні регламенти та оцінку відповідності.* [Law of Ukraine On Technical Regulations and Conformity Assessment]. https://zakon.rada.gov.ua/laws/show/124-19#Text

[52] European Union & Ukraine. (2014). *УГОДА ПРО АСОЦІАЦІЮ між Україною, з однієї сторони, та Європейським Союзом, Європейським співтовариством з атомної енергії і їхніми державами-членами, з іншої сторон.* [ASSOCIATION AGREEMENT between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their Member States, on the other hand].https://zakon.rada.gov.ua/laws/show/984_011#Text

[53] European Union (2019, April 17). *Regulation (EU) 2019/881 of the European Parliament and of the Council of 17 April 2019 on ENISA (the European Union Agency for Cybersecurity) and on information and communications technology cybersecurity certification and repealing Regulation (EU) No 526/2013 (Cybersecurity Act).* https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R0881

pendent decision in relation to certain public bodies to which it is subordinated as an executive body.

Conformity assessment is carried out in relation to the defined certification schemes and technical specifications of the European Commission. If the SSSCIP is designated by a national standardisation body as an accredited conformity assessment body, such a body cannot provide the same services it will assess. However, the SSSCIP provides services through the National System of Confidential Communication, which is defined thus: "the national system of governmental electronic communications is a nationwide special information and communication system created on the basis of the state system of governmental communication, which functions in the interests of state administration in peacetime, in a state of emergency and in a special period with the provision of transmission, reception and processing of information constituting a state secret and other information with limited access, the requirement for protection of which is established by law", so there is a possible conflict of interest.

The requirements for networks and systems are usually set out in technical specifications, and the supervisory authority cannot define the requirements and monitor their implementation at the same time.

Reforming the country's cybersecurity management system during martial law may be the biggest challenge for the digital economy. This is because data security is a cross-cutting issue for all aspects of digital economy development.

5.2. Establishment of a supervisory authority in the field of personal data protection.

The question that has been the most heatedly debated in Ukraine after the adoption of the draft law on personal data protection in the first reading is whether the SSSCIP can meet all the criteria without requiring amendment of the Constitution.[54]

In this regard, balanced opinions have been put forward by lawyers who have already worked with EU law or have had experience with data protection institutions in the EU.[55]

At the end of 2024, the European Commission published a report[56] that contains a requirement that Ukraine adopt the draft law that is already in the Verkhovna Rada by the end of 2025, and another requirement to develop a personal data protection system by 2027, which is a condition of joining the EU.

Opponents of European integration are against this reform because they currently receive certain benefits that will end (or decrease) with accession, for example, selling personal data collected on the basis of publicly available data, but for a different purpose from that for which the data was provided by the user. For example, companies that provide marketing services or send spam communication are opposed to the reform, and there are some reservations in the media regarding the application of the rules on photos and videos in public places. The Ombudsman in Ukraine, who acts as the data protection authority, is currently conducting a

[54] Ukrainian Helsinki Human Rights Union. (2021, November 26). *Аналіз проєкту Закону України «Про Національну комісію з питань захисту персональних даних та доступу до публічної інформації» № 6177.* [Analysis of the Draft Law of Ukraine «On the National Commission for the Protection of Personal Data and Access to Public Information» No. 6177]. https://www.helsinki.org.ua/articles/analiz-proiektu-zakonu-ukrainy-pro-natsionalnu-komisiiu-z-pytan-zakhystu-personalnykh-danykh-ta-dostupu-do-publichnoi-informatsii-6177/

[55] Ivanov, O. (2024, February 14). *Обов'язкове інформування, контроль та великі штрафи: як новий законопроєкт змінює правила захисту персональних даних.* [Mandatory notification, control, and large fines: How the new bill changes personal data protection rules]. Ukrinforum. https://www.ukrinform.ua/rubric-polytics/3826649-obovazkove-informuvanna-kontrol-ta-veliki-strafi-ak-novij-zakonoproekt-zminue-pravila-zahistu-personalnih-danih.html

[56] European Commission. (2024, October 30). *Ukraine 2024 Report*. Directorate-General for Neighbourhood and Enlargement Negotiations. https://neighbourhood-enlargement.ec.europa.eu/document/download/1924a044-b30f-48a2-99c1-50edeac14da1_en?filename=Ukraine%20Report%202024.pdf

major information campaign to promote the draft laws necessary for Ukraine's accession to the EU.

Therefore, European institutions and partners should allocate funds to create two independent data protection institutions based on the European model and provide additional recommendations and ongoing expert support to advise Ukrainian institutions in developing cybersecurity and data protection systems.

Continuous support and advice is something that Ukraine will need right up until its accession to the EU. Former Ambassador of the EU Delegation to Ukraine Matti Maasikas has been both frank and truthful in describing some aspects of political life in Ukraine, for example, strategic documents: "In Ukraine, I did not pay attention to any documents called 'plan', 'strategy' or 'development plan', even when they were commissioned by the EU." He also said that "often, they were made for international donors and were not planned to be implemented" but that some difficult reforms had been implemented under pressure from the European Commission or G7 ambassadors.[57] Indeed, the issue of personal data protection moved forward precisely when the European Commission explicitly identified this measure as both necessary and a priority in its report.

Therefore, the measures recommended in these conclusions could be implemented more quickly if they are initiated from the outside rather than by Ukraine, particularly in terms of cybersecurity governance and data protection reform.

[57] Sydorenko, S. (2024, December 6). *Від тиску до компромісів, від Єрмака до Порошенка: спогади колишнього посла ЄС в Україні. From Pressure to Compromises, from Yermak to Poroshenko: Memoirs of the Former EU Ambassador to Ukraine*. European Pravda. https://www.eurointegration.com.ua/articles/2024/12/6/7199623/

Appendix 1 Comparative table of implementation of EU legal acts with Ukrainian legislation in the area of the EU Digital Single Market

№	Acts of EU law	Regulatory and legal acts of Ukraine	Status of implementation	Notes
1	**Recovery and Resilience Facility Regulation (EU) 2021/241** **Regulation (EU) establishing the Ukraine Facility 2024/792**	CMU Order "On the Facility of the Plan of Ukraine" for the purpose of implementing the EU initiative "Ukraine Facility" introduced by Regulation (EU) No. 2024/792 of the European Parliament and of the Council of February 29, 2024[58]	Partially implemented	Ukraine's plan for the Ukraine Facility was adopted in response to the Regulation on the establishment of a fund for the recovery of Ukraine. However, the goals and objectives are identical to the European Fund for Reconstruction and Recovery, in which Ukraine cannot participate until it becomes a full member.[59] The status of implementation is available on the website of the Ministry of Economy.[60]
2	**InvestEU Programme Regulation (EU) 2021/523**	Ukraine does not participate in this programme	Not subject to implementation	Ukraine has established the Innovation Development Fund,[61], which implements various projects in the areas defined by the Regulation.
3	**Digital Europe Programme Regulation (EU) 2021/694**		Not subject to implementation	Ukraine can participate in these funding programmes as a candidate country.[62]
4	**Horizon Europe Regulation (EU) 2021/695 (EU) 2021/764**		Not subject to implementation	Ukraine can participate in these funding programmes as a candidate country.[63]
5	**Connecting Europe Facility Regulation (EU) 2021/1153**		Not subject to implementation	Ukraine can participate in these funding programmes as a candidate country.[64]

[58] Cabinet of Ministers of Ukraine. (2024, March 18). *Про схвалення Плану України.* [On Approval of the Plan of Ukraine]. https://zakon.rada.gov.ua/laws/show/244-2024-%D1%80#Text

[59] Government of Ukraine. (2024, March). *План для Ukraine Facility, 2024-2027.* [Ukraine Facility Plan, 2024-2027]. https://www.ukrainefacility.me.gov.ua/wp-content/uploads/2024/03/plan-ukraine-facility.pdf

[60] Ministry of Economy of Ukraine. (n.d.). Ukraine Facility Plan. https://www.ukrainefacility.me.gov.ua/; Ukraine Facility Plan Implementation Progress. https://app.powerbi.com/view?r=eyJrIjoiYWEwNGNmNmYtOGMzZC00OTUwLWEwZTgtZjJlODQwZGZjMmM5IiwidCI6ImNlMWIwNDA5LWQ5OWQtNDQ2Mi05YTY3LTViZmQ2Y2I0YTE0NyJ9

[61] Ukrainian Startup Fund. (n.d.). *Ukrainian Startup Fund*. https://usf.com.ua/

[62] European Commission. (n.d.). *The DIGITAL Europe Programme – Work Programmes*. https://digital-strategy.ec.europa.eu/en/activities/work-programmes-digital

[63] Horizon Europe Office in Ukraine. (n.d.). *Specific support for Ukrainian research and innovation*. https://horizon-europe.org.ua/en/about-he/support-for-ukraine/

[64] European Commission. (n.d.). *EU-Ukraine relations*. https://neighbourhood-enlargement.ec.europa.eu/european-neighbourhood-policy/countries-region/ukraine_en

6	**Regulation on High-Performance Computing Joint Undertaking (EU) 2021/1173**	Ukraine does not participate in this programme	Not subject to implementation	The joint venture members are: the EU, represented by the European Commission; Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden; Montenegro, North Macedonia, Switzerland and Turkey, on condition that they are associated with Horizon Europe, the digital Europe programme or the Connecting Europe Facility; the European Technology Platform for High-Performance Computing association (subject to EU endorsement); the Data, AI and Robotics Association, formerly known as the Big Data Value Association.
7	**Regulation on Joint Undertakings under Horizon Europe (EU) 2021/2085 2022/0033(NLE) to add a Chips Joint Undertaking**		Not subject to implementation	The Regulation established the policy and legal framework for European partnerships with private or public sector partners.
8	**Regulation on a pilot regime for distributed ledger tech. market (EU) 2022/858**	Procedure for implementing an experimental project on the organisation of research of high-tech means by the "Sandbox" method [65]	In the process of implementation	The project was launched by the Innovation Development Fund in October, and the pilot project is funded by international technical assistance and other sources.

[65] Cabinet of Ministers of Ukraine. (2024, October 29). *ПОСТАНОВА Про реалізацію експериментального проекту щодо організації проведення дослідження високотехнологічних засобів методом "Sandbox"*. [Resolution On the Implementation of an Experimental Project for Conducting Research on High-Tech Means Using the 'Sandbox' Method]. https://zakon.rada.gov.ua/laws/show/1238-2024-%D0%BF#Text

9	**Frequency Bands Directive (EEC) 1987/372 (EC) 2009/114**	In November 2021, the EU–Ukraine Association Committee updated Annex XVII-3 to the Association Agreement, which provides for, inter alia, implementation, by a decision of the EU–Ukraine Association Committee: - EU Directive 2018/1972 establishing a European Code for Electronic communications (until 31 December 2024); - EU Directive 2014/61/EU on measures to reduce deployment costs of high-speed electronic communication networks (until 31 December 2021); - Regulation (EU) 2015/2120 on measures for access to the open internet and the introduction of amendments to Directive 2002/22/EC on universal service and rights of users in relation to electronic communication networks and services (until 31 December 2025); - Regulatory frameworks for radio spectrum policy, including more than three dozen of the EU acquis (until December 31, 2022). Also, Annex XVII-3 provides for the proper management of risks related to the security of networks and services in accordance with the framework of measures presented in the publication "Cybersecurity of 5G networks: EU risk mitigation toolkit", published in accordance with Commission Recommendation (EU) 2019/534 of 26.03.2019 (C(2019) 2335).[66]	Implemented Partially implemented	Measures on roaming have been taken, and radio frequency spectrum regulations have been partially implemented – there are problems with frequency conversion.[67] Creation of conditions for the release of radio frequency bands harmonised with the EU, necessary for the introduction of new technologies, is planned for 2026 For 5G to succeed, it is crucial for Ukraine to enable harmonised licensing of the frequency bands that are not yet widely used in Europe for mobile-700 MHz, 1400 MHz, 3400-3800MHz. Long-term spectrum strategy on enabling new frequency bands is needed-higher-frequency (millimetre) bands-lower-frequency bands. The provision of a regulatory sandbox or flexible regulations are crucial in piloting 5G networks and safeguarding private sector investments before the technology is fully mature. As such, consistency among peers and in consultation with key stakeholders on the following points is recommended: - duration of licences, - timing of repurposing of the spectrum - reasonable spectrum fees.
10	**Radio Spectrum Decision (EC) 2002/676**			
11	**Broadband Cost Reduction Directive (EU) 2014/61**			
12	**Open Internet Access Regulation (EU) 2015/2120**	The Law of Ukraine "On Electronic Communications"[68]	Implemented	According to the Ministry of Finance,[69] Regulation implemented.

[66] Ministry of Digital Transformation of Ukraine. (n.d.). *СТРАТЕГІЯ РОЗВИТКУ СФЕРИ ЕЛЕКТРОННИХ КОМУНІКАЦІЙ УКРАЇНИ – 2030. [Strategy for the Development of Ukraine's Electronic Communications Sector – 2030]*. https://thedigital.gov.ua/storage/uploads/files/%D0%90%D0%BD%D0%B0%D0%BB%D1%96%D1%82%D0%B8%D1%87%D0%BD%D1%96%20%D0%BC%D0%B0%D1%82%D0%B5%D1%80%D1%96%D0%B0%D0%BB%D0%B8.pdf

[67] Ministry of Digital Transformation of Ukraine. (n.d.). *Аналіз на відповідність політиці та правовій базі, передбачений Рішенням 676/2002 / ЄС. Гармонізація використання радіочастотного спектра України з урахуванням інтересів усіх сфер діяльності та категорій споживачів.* [Analysis of Compliance of Policies and Legal Framework as Provided by Decision 676/2002/EC: Harmonization of Radio Frequency Spectrum Use in Ukraine Considering the Interests of All Activity Spheres and Consumer Categories]. https://thedigital.gov.ua/projects/yevrointegraciya/roadmap/3-analiz-na-vidpovidnist-polititsi-ta-pravoviy-bazi-peredbacheniy-rishennyam-6762002-es-garmonizatsiya-vikoristannya-radiochastotnogo-spektra-ukraini-z-urakhuvannyam-interesiv-usikh-sfer-diyalnosti-ta-kategoriy-spozhivachiv

[68] Verkhovna Rada of Ukraine. (2020, December 16). ЗАКОН УКРАЇНИ *Про електронні комунікації - Розділ XIII. УНІВЕРСАЛЬНІ ЕЛЕКТРОННІ КОМУНІКАЦІЙНІ ПОСЛУГИ.* [LAW OF UKRAINE ON ELECTRONIC COMMUNICATIONS - Section XIII. UNIVERSAL ELECTRONIC COMMUNICATION SERVICES]. https://zakon.rada.gov.ua/laws/show/1089-20#n1825

[69] Ministry of Digital Transformation of Ukraine. (n.d.). *8. Законодавче врегулювання питання відкритого доступу до Інтернету.* [Legislative Regulation of Open Internet Access]. https://thedigital.gov.ua/projects/yevrointegraciya/roadmap/8-zakonodavche-vregulyuvannya-pitannya-vidkritogo-dostupu-do-internetu

13	**European Electronic Communications Code Directive (EECC) (EU) 2018/1972**	Law of Ukraine "On Electronic Communications"[70] The Law of Ukraine "On the National Commission for the State Regulation of Electronic Communications, Radio Frequency Spectrum and Postal Services"[71]	Partially implemented	In December 2020, the Law of Ukraine "On Electronic Communications" was adopted, which came into force on 1 January 2022. In December 2021, the Law of Ukraine "On the National Commission for the State Regulation of Electronic Communications, Radio Frequency Spectrum and Postal Services" was adopted, which came into force on 13 February 2022. These laws provide for the implementation of EU Directive 2018/1972 establishing the European Electronic Communications Code, which is a significant progress towards Ukraine's accession to the EU Digital Single Market.

[70] Verkhovna Rada of Ukraine. (2020, December 16). *ЗАКОН УКРАЇНИ Про електронні комунікації - Розділ XIII. УНІВЕРСАЛЬНІ ЕЛЕКТРОННІ КОМУНІКАЦІЙНІ ПОСЛУГИ.* [LAW OF UKRAINE ON ELECTRONIC COMMUNICATIONS - Section XIII. UNIVERSAL ELECTRONIC COMMUNICATION SERVICES]. https://zakon.rada.gov.ua/laws/show/1089-20#n1825

[71] Verkhovna Rada of Ukraine. (2021, December 16). *ЗАКОН УКРАЇНИ - Про Національну комісію, що здійснює державне регулювання у сферах електронних комунікацій, радіочастотного спектра та надання послуг поштового зв'язку.* [Law of Ukraine No. 1971-IX On the National Commission for the State Regulation of Electronic Communications, Radio Frequency Spectrum and Postal Services]. https://zakon.rada.gov.ua/laws/show/1971-20#Text

14	**Roaming Regulation (EU) 2022/612**	The Law of Ukraine "On Electronic Communications"[72]	Implemented	In April 2023, the EU–Ukraine Association Committee amended Annex XVII-3 in the trade part of the Agreement, which provides for the implementation of EU acts necessary to obtain internal market treatment with the EU in terms of roaming services by joining the EU's Roaming as Home single roaming area, in particular: - Regulation (EU) 2022/612 on roaming on mobile networks of general use within the European Union; - Commission Implementing Regulation (EU) 2016/2286, which sets out detailed rules for applying the fair use policy and methodology for assessment of the sustainability of the elimination of retail roaming surcharges and the application to be submitted roaming provider for the purposes of such assessment; - Commission Delegated Regulation (EU) 2021/654 supplementing Directive (EU) 2018/1972 by establishing a single EU-wide maximum termination rate of mobile voice traffic and a single EU-wide maximum rate termination of fixed voice traffic; - Regulation (EU) 2018/1971 establishing a Body of European Regulators for Electronic Communications (BEREC) and a BEREC Support Agency (BEREC Office).
15	**General Data Protection Regulation (GDPR) (EU) 2016/679**	The Law of Ukraine "On Personal Data Protection"[73]	Not implemented	Draft laws 8153 and 6177 are pending in the Verkhovna Rada and need to be adopted and implemented. The European Commission[74] emphasised the need to adopt draft laws implementing the GDPR. Draft laws on personal data protection and on the National Commission on Personal Data Protection and Access to Public Information, registered in 2022, are still to be adopted.

[72] Verkhovna Rada of Ukraine. (2020, December 16). *ЗАКОН УКРАЇНИ Про електронні комунікації - Розділ XIII. УНІВЕРСАЛЬНІ ЕЛЕКТРОННІ КОМУНІКАЦІЙНІ ПОСЛУГИ.* [LAW OF UKRAINE ON ELECTRONIC COMMUNICATIONS - Section XIII. UNIVERSAL ELECTRONIC COMMUNICATION SERVICES]. https://zakon.rada.gov.ua/laws/show/1089-20#n1825

[73] Verkhovna Rada. (2010, June 1). *Law of* Ukraine *On Protection of Personal Data*. https://zakon.rada.gov.ua/laws/show/2297-17?lang=en#Text

[74] European Commission (2024, October 30). *Ukraine 2024 Report*. Directorate-General for Neighbourhood and Enlargement Negotiations. https://neighbourhood-enlargement.ec.europa.eu/ukraine-report-2024_en?fbclid=IwY2xjawGQnqJleHRuA2FlbQIxMAABHaQT5geEZAKY1XzQVY7um5LuQusK5mPvHFnIByXk3yq7nJHCAMNkiuAJCg_aem_4IhWMwib6w4Ros6K6nVkgg

16	**Regulation to protect personal data processed by EU institutions, bodies, offices and agencies (EU) 2018/1725**		Not subject to implementation	The Regulation applies exclusively to European institutions and the requirements for them to implement Regulation 679 and Directive 680.
17	**Regulation on the free flow of non-personal data (EU) 2018/1807**		Not implemented	Documents related to the free movement of data in the digital economy may be implemented simultaneously with or after the GDPR. Therefore, the issue of non-personal data circulation is not regulated. Regulation (EU) 2016/679 and this Regulation provide a harmonised set of rules that ensure the free flow of different types of data.

18	**Open Data Directive (PSI) (EU) 2019/1024**	The Law of Ukraine "On Access to Public Information"[75] The Law of Ukraine "On Information"[76] Regulation on data sets to be published in the form of open data, approved by the Cabinet of Ministers of Ukraine on 21 October 2015, No. 835[77]	Partially implemented	This Directive does not affect the protection of individuals with regard to the processing of personal data under Union and national law, in particular Regulation (EU) 2016/679 and Directive 2002/58/EC of the European Parliament and of the Council (18) and including any supplementary provisions of national law. This means, inter alia, that the re-use of personal data is permissible only if the principle of purpose limitation as set out in point (b) of Article 5(1) and Article 6 of Regulation (EU) 2016/679 is met. Anonymous information is information that does not relate to an identified or identifiable natural person or to personal data rendered anonymous in such a way that the data subject is not or is no longer identifiable. Rendering information anonymous is a means of reconciling the interests in making public sector information as re-usable as possible with the obligations under data protection law, but it comes at a cost. It is appropriate to consider that cost to be one of the cost items to be considered to be part of the marginal cost of dissemination as referred to in this Directive. Since the GDPR has not been implemented, the possibility of full application of the Directive without violating the right to privacy is limited.

[75] Verkhovna Rada of Ukraine. (2011, January 13). *ЗАКОН УКРАЇНИ Про доступ до публічної інформації*. Law of Ukraine on Access to Public Information. https://zakon.rada.gov.ua/laws/show/2939-17#Text

[76] Verkhovna Rada of Ukraine. (1992, October 2). *ЗАКОН УКРАЇНИ Про інформацію*. [Law of Ukraine - On Information]. https://zakon.rada.gov.ua/laws/show/2657-12

[77] Cabinet of Ministers of Ukraine. (2015, October 21). *ПОСТАНОВА Про затвердження Положення про набори даних, які підлягають оприлюдненню у формі відкритих даних.* [RESOLUTION On Approval of the Regulation on Data Sets to be Disclosed in the Form of Open Data]. https://zakon.rada.gov.ua/laws/show/835-2015-%D0%BF#Text

19	**Data Governance Act (DGA Regulation) (EU) 2022/868**	The Law of Ukraine "On Access to Public Information"[78] – establishes the obligation of public institutions to publish and disseminate public information and open data The Law of Ukraine "On Information"[79] – defines the types of information and framework The Law of Ukraine "On Scientific and Technical Information"[80] – regulates the use of scientific and technical information of the public sector	Partially implemented	Union and national law on the protection of personal data shall apply to any personal data processed in connection with this Regulation. In particular, this Regulation is without prejudice to Regulations (EU) 2016/679 and (EU) 2018/1725 and Directives 2002/58/EC and (EU) 2016/680, including with regard to the powers and competences of supervisory authorities. In the event of a conflict between this Regulation and Union law on the protection of personal data or national law adopted in accordance with such Union law, the relevant Union or national law on the protection of personal data shall prevail. This Regulation does not create a legal basis for the processing of personal data, nor does it affect any of the rights and obligations set out in Regulations (EU) 2016/679 or (EU) 2018/1725 or Directives 2002/58/EC or (EU) 2016/680.
20	**Law Enforcement Directive (EU) 2016/680**	Draft Law "On Personal Data Protection"[81] 8153 of 25.10.2022	Not implemented	Partial implementation will take place if this draft law is adopted, but this will only be the beginning of bringing the entire block of laws regulating the activities of law enforcement agencies into compliance.
21	**Directive on combating fraud and counterfeiting of non-cash means of payment (EU) 2019/713**	The Criminal Code of Ukraine[82] The Law of Ukraine "On Payment Services"[83]	Partially implemented	According to scholars, certain provisions of the articles of the Criminal Code[84] need to be improved in terms of strengthening liability towards individuals and legal entities.

[78] Verkhovna Rada of Ukraine. (2011, January 13). *ЗАКОН УКРАЇНИ Про доступ до публічної інформації.* [Law of Ukraine On Access to Public Information]. https://zakon.rada.gov.ua/laws/show/2939-17#Text

[79] Verkhovna Rada der Ukraine. (1992, 2. Oktober). *ЗАКОН УКРАЇНИ Про інформацію.* [Law of Ukraine On Information]. https://zakon.rada.gov.ua/laws/show/2657-12

[80] Verkhovna Rada of Ukraine. (1993, June 25). *ЗАКОН УКРАЇНИ Про науково-технічну інформацію.* [Law of Ukraine On Scientific and Technical Information]. https://zakon.rada.gov.ua/laws/show/3322-12#Text

[81] Verkhovna Rada of Ukraine. (2022, October 25). *Проект Закону про захист персональних даних.* [Draft Law on Personal Data Protection]. https://itd.rada.gov.ua/billinfo/Bills/Card/40707

[82] Verkhovna Rada of Ukraine. (2001, April 5). *КРИМІНАЛЬНИЙ КОДЕКС УКРАЇНИ.* [Criminal Code of Ukraine]. https://zakon.rada.gov.ua/laws/show/2341-14#Text

[83] Verkhovna Rada of Ukraine. (2021, June 30). ЗАКОН УКРАЇНИ Про платіжні послуги *Law of Ukraine On Payment Services*. https://zakon.rada.gov.ua/laws/show/1591-20#Text

[84] Lytvynov, O. M., & Orlov, Y. V. (2024). Criminal Code of Ukraine and Directive (EU) 2019/713: A Comparative Legal Analysis in the Context of Acquis Communautaire. *Visnyk Kryminolohichnoi Asotsiatsii Ukrainy*, (2), 37–52. https://www.researchgate.net/publication/385016275_KRIMINALNIJ_KODEKS_UKRAINI_TA_DIREKTIVA_ES_2019713_EVROPEJSKOGO_PARLAMENTU_TA_RADI_VID_17042019_PRO_BOROTBU_Z_SAHRAJSTVOM_I_PIDROBKOU_BEZGOTIVKOVIH_PLATIZNIH_ZASOBIV_PORIVNALNO-PRAVOVIJ_ANALIZ_V_KONTE

22	**Regulation for a Cybersecurity Act (EU) 2019/881**	Law of Ukraine "On the Basic Principles of Ensuring Cybersecurity of Ukraine"[85]	Partially implemented	The legal provisions on the introduction of European cybersecurity certification schemes, the abandonment of national standards and the transition to the introduction of technical regulation based on technical specifications approved by the European Commission need to be improved.
23	**Regulation on terrorist content online (EU) 2021/784**		Not implemented	There are difficulties with determining the institution responsible for implementing this Regulation – currently, the NSDC, the Ministry of Digital Transformation, or the Ministry of Culture and Strategic Communications of Ukraine have partial powers to regulate content.
24	**Regulation to establish a European Cybersecurity Competence Centre (EU) 2021/887**		Not implemented	The SSSCIP, as the body currently responsible for cybersecurity management in Ukraine, does not currently have sufficient authority and funding to establish a Cybersecurity Competence Centre. During the martial law period, the extent of the development budget are quite limited.
25	**Temporary CSAM Regulation (EU) 2021/1232 2022/0155(COD) to establish a long-term legislative solution**	The Law of Ukraine "On Electronic Communications"[86]	Not implemented	Currently, there is no three-year retention period for traffic data, only the possibility to access information about the consumer, the facts of the provision of electronic communication services, including data processed for the purpose of transmitting such information in electronic communication networks, upon request. Namely, on the basis of a decision of a prosecutor, court, or investigating judge in cases and in the manner prescribed by law.

[85] Verkhovna Rada of Ukraine. (2019, November 7). *ЗАКОН УКРАЇНИ Про основні засади забезпечення кібербезпеки України.* [Law of Ukraine No. 2163-VIII on the Financial System of Ukraine]. https://zakon.rada.gov.ua/laws/show/2163-19#Text

[86] Verkhovna Rada of Ukraine. (2020, December 16). *ЗАКОН УКРАЇНИ Про електронні комунікації - Розділ XIII. УНІВЕРСАЛЬНІ ЕЛЕКТРОННІ КОМУНІКАЦІЙНІ ПОСЛУГИ.* [LAW OF UKRAINE ON ELECTRONIC COMMUNICATIONS - Section XIII. UNIVERSAL ELECTRONIC COMMUNICATION SERVICES]. https://zakon.rada.gov.ua/laws/show/1089-20#n1825

26	**Product Liability Directive (PLD) (EEC) 1985/374 2022/0302 (COD) to adapt PLD to new types of products**	The Law of Ukraine "On Protection of Consumer Rights"[87] Civil Code of Ukraine[88] Commercial Code of Ukraine[89] The Law of Ukraine "On Protection of Consumer Rights" Law of Ukraine "On Amendments to the Law of Ukraine" "On Quality and Safety of Food Products and Food Raw Materials"[90] The list of goods of good quality that are not subject to exchange (return) is approved by Resolution of the Cabinet of Ministers of Ukraine No. 172 "On Implementation of Certain Provisions of the Law of Ukraine" "On Protection of Consumer Rights" dated 19 March 1994.[91] The Procedure for Conducting Trade Activities and Rules for Trade Services to the Population, approved by the Resolution of the Cabinet of Ministers of Ukraine No. 833 dated 15 June 2006[92] Rules of Retail Trade in Non-Food Products, approved by Order of the Ministry of Economy of Ukraine No. 104 dated 19 April 2007[93] Rules of Retail Trade in Food Products (as amended), approved by Order of the Ministry of Economy and European Integration of Ukraine No. 185 dated 11 July 2003[94] Rules for Trading on Markets (as amended), approved by Order of the Ministry of Economy and European Integration of Ukraine, Ministry of Internal Affairs of Ukraine, State Tax Administration of Ukraine, State Committee for Standardisation, Metrology and Certification of Ukraine No. 57/188/84/105 dated 26 February 2002[95]	Implemented	The date of entry into force of the amended Directive (EU) 2024/2853 is 8 December 2024, so the legislation will need to be updated in terms of new types of goods.

[87] Verkhovna Rada of Ukraine. (1991, May 12). *ЗАКОН УКРАЇНИ Про захист прав споживачів.* [Law of Ukraine on Consumer Protection]. https://zakon.rada.gov.ua/laws/show/1023-12

[88] Verkhovna Rada of Ukraine. (2003, January 16). *Цивільний кодекс України.* [Civil Code of Ukraine]. http://zakon2.rada.gov.ua/laws/show/435-15

[89] Verkhovna Rada of Ukraine. (2003, January 16). *Господарський кодекс України.* [Commercial Code of Ukraine]. http://zakon2.rada.gov.ua/laws/show/436-15

[90] Verkhovna Rada of Ukraine. (2005, September 6). *Про внесення змін до Закону України «Про якість та безпеку харчових продуктів та продовольчої сировини».* [On Amendments to the Law of Ukraine 'On Quality and Safety of Food Products and Food Raw Materials']. http://zakon5.rada.gov.ua/laws/show/2809-15

[91] Cabinet of Ministers of Ukraine. (1994, March 19). *ПОСТАНОВА Про реалізацію окремих положень Закону України «Про захист прав споживачів».* [RESOLUTION On Implementation of Certain Provisions of the Law of Ukraine 'On Protection of Consumer Rights']. http://zakon3.rada.gov.ua/laws/show/172-94-%D0%BF

[92] Cabinet of Ministers of Ukraine. (2006, June 15). *ПОСТАНОВА Про затвердження Порядку провадження торговельної діяльності та правил торговельного обслуговування на ринку споживчих товарів.* [RESOLUTION On Approval of the Procedure for Conducting Trading Activities and Rules for Trade Services in the Consumer Goods Market]. http://zakon5.rada.gov.ua/laws/show/833-2006-%D0%BF

[93] Minstry of Economy of Ukraine. (2007, April 19). *НАКАЗ Про затвердження Правил роздрібної торгівлі непродовольчими товарами*. [ORDER On Approval of the Rules of Retail Trade in Non-Food Products]. http://zakon0.rada.gov.ua/laws/show/z1257-07

[94] Ministry of Economy and European Integration of Ukraine. (2003, July 11). *НАКАЗ Про затвердження Правил роздрібної торгівлі продовольчими товарами*. [ORDER On Approval of the Rules of Retail Trade in Food Products]. http://zakon2.rada.gov.ua/laws/show/z0628-03

[95] abinet of Ministers of Ukraine. (2002, February 26). *НАКАЗ Про затвердження Правил торгівлі на ринках.* [ORDER On Approval of the Rules of Trading in the Markets]. http://zakon5.rada.gov.ua/laws/show/z0288-02

27	**European Standardisation Regulation (EU) 2012/1025 2022/0021 (COD) to improve decision-making process**	The Law of Ukraine "On Standardisation"[96]	Implemented	Update by Regulation (EU) 2022/2480 on the powers of the European Commission.
28	**Radio Equipment Directive (RED) (EU) 2014/53 2021/0291(COD) to establish rules on common chargers**	Technical regulations for radio equipment[97]	Partially implemented	Needs to be updated in accordance with the changes introduced by 2021/0291(COD).
29	**eIDAS Regulation (EU) 2014/910 2021/0136(COD) to introduce an EU eID framework**	The Law of Ukraine "On Electronic Identification and Electronic Trust Services"[98]	Partially implemented	Regarding digital trust and cybersecurity, Ukraine has made good progress in the approximation to the electronic identification and trust services under the European Digital Identity Regulation. However, some gaps remain in order to fully implement the EU acquis in the field of electronic identities and trust services and in order that Ukraine can benefit from internal market treatment. The Ukrainian Law needs to be aligned with the revised European Digital Identity Regulation and Ukraine will need to specify the rules in a number of areas (e.g. compliance with the GDPR (or an equivalent level of personal data protection) and with some provisions of the NIS2 Directive) in order to ensure mutual recognition of electronic identification schemes from EU Member States in Ukraine according to European standards.[99]

[96] Verkhovna Rada of Ukraine. (2014, June 5). *ЗАКОН УКРАЇНИ Про стандартизацію.* [Law of Ukraine on Standardisation]. https://zakon.rada.gov.ua/laws/show/1315-18#Text

[97] Cabinet of Ministers of Ukraine. (2017, May 24). *ПОСТАНОВА Про затвердження Технічного регламенту радіообладнання.* [Resolution On Approval of the Technical Regulation of Radio Equipment]. https://zakon.rada.gov.ua/laws/show/355-2017-%D0%BF#Text

[98] Verkhovna Rada of Ukraine. (2017, October 5). *ЗАКОН УКРАЇНИ Про електронну ідентифікацію та електронні довірчі послуги.* [Law of Ukraine No. On Electronic Identification and Electronic Trust Services]. https://zakon.rada.gov.ua/laws/show/2155-19#Text

[99] European Commission. (2024, October 30). *Ukraine Report 2024*. Directorate-General for Neighbourhood and Enlargement Negotiations. https://neighbourhood-enlargement.ec.europa.eu/document/download/1924a044-b30f-48a2-99c1-50edeac14da1_en?filename=Ukraine%20Report%202024.pdf

30	**Regulation for a Single Digital Gateway (EU) 2018/1724**		Not subject to implementation	This Regulation should establish a single digital gateway to act as the single entry point through which citizens and businesses are able to access information about the rules and requirements that they have to comply with, by virtue of Union or national law. The gateway should simplify citizens' and businesses' contact with the assistance and problem-solving services established at Union or national level and make that contact more effective. The gateway should also facilitate access to and completion of online procedures. This Regulation should not affect in any way the existing rights and obligations under Union or national law within those policy areas.
31	**.eu top-level domain Regulation (EU) 2019/517**		Not subject to implementation	In Ukraine, there is no regulation at the level of regulatory legal acts regarding registration in the UA domain.
32	**e-commerce Directive (EC) 2000/31**	The Law of Ukraine "On Electronic Commerce"[100]	Implemented	There are still some problems with the realisation of consumer rights and regulation of the form of contracts.

[100] Verkhovna Rada of Ukraine. (2015, September 3). *ЗАКОН УКРАЇНИ Про електронну комерцію*. [Law of Ukraine On Electronic Commerce]. https://zakon.rada.gov.ua/laws/show/675-19#Text

33	**e-invoicing Directive (EU) 2014/55**	The Law of Ukraine "On Electronic Identification and Electronic Trust Services"[101] The Law of Ukraine "On Public Procurement"[102]	Partially implemented	https://paperless.diia.gov.ua/ https://prozorro.gov.ua/uk The entry into force of the legislation on the support of electronic identification schemes in accordance with the eIDAS Regulation will provide for the support of electronic identification schemes and harmonisation with the revised eIDAS Regulation. In particular, this will include the creation of a modern electronic identification infrastructure in Ukraine and ensuring its sustainable development; ensuring interoperability (technological compatibility) of electronic identification means, intermediate electronic identification hubs and electronic identification schemes; and protecting information resources processed in the system. The reform will be implemented by the Ministry of Digital Transformation and will be completed by the 2nd quarter of 2026. This measure will simplify online access to public services, the conclusion of electronic contracts with foreign partners, and the receipt of international electronic invoices.[103]
34	**Geo-Blocking Regulation (EU) 2018/302**		Not implemented	There is no information on measures related to the implementation of the Regulation.
35	**Digital content Directive (EU) 2019/770**	The Law of Ukraine "On Digital Content and Digital Services"[104]	Fully implemented	According to the conclusion of the Verkhovna Rada Committee on European Integration, it needs to be finalised in order to bring it in line with the provisions of Article 8 of Directive 2019/770.[105]

[101] Verkhovna Rada of Ukraine. (2017, October 5). *ЗАКОН УКРАЇНИ Про електронну ідентифікацію та електронні довірчі послуги.* [Law of Ukraine On Electronic Identification and Electronic Trust Services]. https://zakon.rada.gov.ua/laws/show/2155-19

[102] Verkhovna Rada of Ukraine. (2015, December 25). *ЗАКОН УКРАЇНИ Про публічні закупівлі.* [Law of Ukraine On Public Procurement]. https://zakon.rada.gov.ua/laws/show/922-19#Text

[103] Ministry of Economy of Ukraine. (2024, March). *План для Ukraine Facility, 2024-2027.* [Ukraine Facility Plan, 2024-2027]. Page 379. https://www.ukrainefacility.me.gov.ua/wp-content/uploads/2024/03/plan-ukraine-facility.pdf

[104] Verkhovna Rada of Ukraine. (2023, August 10). *ЗАКОН УКРАЇНИ Про цифровий контент та цифрові послуги*. [Law of Ukraine On Digital Content and Digital Services]. https://zakon.rada.gov.ua/laws/show/3321-20#Text

[105] Verkhovna Rada of Ukraine (2022, January 31). *Проект Закону про цифровий контент та цифрові послуги -Висновок (експертиза щодо європейської інтеграції).* [Draft Law on Digital Content and Digital Services - Opinion (European Integration Review)]. https://itd.rada.gov.ua/billInfo/Bills/CardByRn?regNum=6576&conv=9

36	**Directive on certain aspects concerning contracts for the sale of goods (EU) 2019/771**	The Law of Ukraine "On Protection of Consumer Rights"[106]	Implemented	The new version of the Law contains provisions implementing the provisions of the Directive, but it will enter into force one year after its publication, but **not earlier than the day of termination or abolition of martial** law introduced by the Decree of the President of Ukraine No. 64/2022 "On the Introduction of Martial Law in Ukraine" dated 4 February 2022, approved by the Law of Ukraine No. 2102-IX dated 24 February 2022.
37	**Payment Services Directive (PSD2) (EU) 2015/2366**	On Approval of the Regulation on Authentication and Application of Enhanced Authentication in the Payment Market[107] On Approval of the Regulation on Requirements to the Management System of Financial Payment Services Provider[108]	Implemented	The Directive was significantly amended in August 2024, and the process of its implementation is just beginning.
38	**P2B Regulation (EU) 2019/1150**	The Law of Ukraine "On Electronic Commerce"[109]	Not implemented	Currently, information society services and certain aspects of the activities of an intermediate service provider in the field of e-commerce are defined at the national level. The issue of transparency, fairness of services and effective compensation needs to be expanded.

[106] Verkhovna Rada of Ukraine. (2023, June 10). *ЗАКОН УКРАЇНИ Про захист прав споживачів.* [Law of Ukraine On Consumer Protection]. https://zakon.rada.gov.ua/laws/show/3153-20#n259

[107] National Bank of Ukraine. (2023, May 3). *ПОСТАНОВА Про затвердження Положення про автентифікацію та застосування посиленої автентифікації на платіжному ринку*. [Resolution On Approval of the Regulation on Authentication and Application of Enhanced Authentication in the Payment Market]. https://zakon.rada.gov.ua/laws/show/v0058500-23#Text

[108] National Bank of Ukraine. (2024, March 15). *ПОСТАНОВА Про затвердження Положення про вимоги до системи управління надавача фінансових платіжних послуг*. [On Approval of the Regulation on Requirements to the Management System of a Financial Payment Service Provider]. https://zakon.rada.gov.ua/laws/show/v0123500-24#Text

[109] Verkhovna Rada of Ukraine. (2015, September 3). *ЗАКОН УКРАЇНИ Про електронну комерцію.* [Law of Ukraine On Electronic Commerce]. https://zakon.rada.gov.ua/laws/show/675-19#Text

39	**Digital Market Act (DMA Regulation) (EU) 2022/1925**		Not implemented	A draft law implementing the Regulation is being prepared. Protection of citizens' rights and online security, as well as support for business digitalisation and harmonisation of Ukrainian e-commerce legislation with EU regulations, are important for the development of the digital economy and society, and a priority task in view of European integration processes and the obligations of a candidate state for accession to the European Union. Ukraine plans to implement the Digital Services Act (DSA) and the Digital Markets Act (DMA). The implementation of European approaches to the regulation of digital services and digital markets in accordance with the DSA, DMA and other EU acquis acts is important for ensuring a safe and reliable online environment in Ukraine, competitive and fair operation, equal conditions for all participants in the digital services market, protection of the rights and legitimate interests of business users and end consumers, as well as harmonisation with EU legislation. In this context, the appointment of an appropriate regulator for digital services and further ensuring its independence will be key, as in the areas of electronic communications and media, as will investments in media literacy, quality journalism, and other areas of work that should complement regulation.
40	**Satellite and Cable I Directive (EEC) 93/83**	The Law of Ukraine "On Media"[110]	Implemented	
41	**Database Directive (EC) 96/9**	The Law of Ukraine "On Media"[111]	Implemented	
42	**Information Society Directive (EC) 2001/29**	The Law of Ukraine "On Copyright and Related Rights"[112]	Implemented	
43	**Enforcement Directive (IPR) (EC) 2004/48**	The Law of Ukraine "On Copyright and Related Rights"[113]	Implemented	

[110] Verkhovna Rada of Ukraine. (2022, December 13). *ЗАКОН УКРАЇНИ Про медіа.* [Law of Ukraine On Media]. https://zakon.rada.gov.ua/laws/show/2849-20#n2413

[111] Ibid.

[112] Verkhovna Rada of Ukraine. (2022, December 1). *ЗАКОН УКРАЇНИ Про авторське право і суміжні права.* [Law of Ukraine On Copyright and Related Rights]. https://zakon.rada.gov.ua/laws/show/2811-20#n855

[113] Ibid.

44	**Audio-visual Media Services Directive (AVMSD) (EU) 2010/13**	The Law of Ukraine "On Media"[114]	Implemented	
45	**Directive on the protection of trade secrets (EU) 2016/943**	Civil Code of Ukraine (Articles 505-508)[115] Law of Ukraine On State Regulation of Activities in the Field of Technology Transfer[116]	Partially implemented	Legislation needs to be improved regarding liability and compensation for unlawful acquisition, use and disclosure of trade secrets.
46	**Portability Regulation (EU) 2017/1128**	The Law of Ukraine "On Media"[117]	Implemented	
47	**Satellite and Cable II Directive (EU) 2019/789**	The Law of Ukraine "On Media"[118]	Implemented	
48	**Copyright Directive (EU) 2019/790**	The Law of Ukraine "On Copyright and Related Rights"[119]	Implemented	
49	**Decision on a path to the Digital Decade 2021/0293(COD)**	On approval of the list of indicators of the Digital Economy and Society Index (DESI)[120]	Implemented	
50	**European Chips Act (Regulation) 2022/0032(COD)**		Not implemented	
51	**Regulation on a Union Secure Connectivity Programme 2022/0039(COD)**		Not implemented	
52	**ePrivacy Regulation 2017/0003(COD)**		Not implemented	
53	**European Data Act (Regulation) 2022/0047(COD)**		Not implemented	
54	**European Health Data Space (Regulation) 2022/0140(COD)**		Partially implemented	

[114] Verkhovna Rada of Ukraine. (2022, December 13). *ЗАКОН УКРАЇНИ Про медіа.* [Law of Ukraine On Media]. https://zakon.rada.gov.ua/laws/show/2849-20#n2413

[115] Verkhovna Rada of Ukraine. (2003, January 16). *Цивільний кодекс України.* [Civil Code of Ukraine]. https://zakon.rada.gov.ua/laws/show/435-15#Text

[116] Verkhovna Rada of Ukraine. (2012, October 2). *ЗАКОН УКРАЇНИ Про внесення змін до Закону України «Про державне регулювання діяльності у сфері трансферу технологій».* [Law of Ukraine On Amendments to the Law of Ukraine ‚On State Regulation of Activities in the Field of Technology Transfer']. https://zakon.rada.gov.ua/laws/show/5407-17#Text

[117] Verkhovna Rada of Ukraine. (2022, December 13). *ЗАКОН УКРАЇНИ Про медіа.* [Law of Ukraine On Media]. https://zakon.rada.gov.ua/laws/show/2849-20#n2413

[118] Ibid.

[119] Verkhovna Rada of Ukraine. (2022, December 1). *ЗАКОН УКРАЇНИ Про авторське право і суміжні права*. [Law of Ukraine On Copyright and Related Rights]. https://zakon.rada.gov.ua/laws/show/2811-20#n855

[120] Cabinet of Ministers of Ukraine. (2023, September 5). *РОЗПОРЯДЖЕННЯ Про затвердження переліку показників Індексу цифрової економіки та суспільства (DESI).* [Resolution List of indicators of the Digital Economy and Society Index (DESI)]. https://zakon.rada.gov.ua/laws/show/774-2023-%D1%80#Text

55	**e-evidence Regulation 2018/0108(COD)**	The Law of Ukraine "On Electronic Communications"[121]	Partially implemented	Draft Laws 4003 and 4004 have been developed, but need to be revised due to a significant update of the Rules. Legislation on e-commerce and other information society services also needs to be improved in terms of preserving electronic evidence.
56	**Digital Operational Resilience Act (DORA Regulation) 2020/0266(COD)**		Not implemented	Implementation measures should be initiated by the National Bank of Ukraine next year.

[121] Verkhovna Rada of Ukraine. (2020, December 16). *ЗАКОН УКРАЇНИ Про електронні комунікації.* [Law of Ukraine On Electronic Communications]. https://zakon.rada.gov.ua/laws/show/1089-20#Text

57	**NIS2 Directive 2020/0359(COD)**	Law of Ukraine "On the Basic Principles of Ensuring Cybersecurity of Ukraine"[122] Procedure for searching for and detecting potential vulnerabilities of information (automated), electronic communication, information and communication systems, electronic communication networks[123]	Partially implemented	Ukraine will be moving closer to the NIS and NIS2 framework standards, as well as to the 5G Security Toolbox (once 5G is fully launched in Ukraine). In particular, this is partially set out in the Resolution of the Cabinet of Ministers of 16 May 2023 No. 497, which approved the Procedure for Searching for and Identifying Potential Vulnerabilities of Information (Automated), Electronic Communication, Information and Communication Systems, Electronic Communication Networks (hereinafter – the Procedure). The Procedure defines a mechanism for searching for and identifying potential vulnerabilities of information (automated), electronic communication, information and communication systems, electronic communication networks, and system owners receive a tool to significantly improve the cybersecurity of such systems. In addition, harmonisation with certain provisions of the NIS and NIS2 will be ensured by the relevant regulations. These acts will determine the mechanism for regulating the obligation to take measures aimed at creating an appropriate legal framework for the implementation of prevention measures, detection and suppression of acts of aggression in cyberspace in the context of Russia's war against Ukraine, increasing the level of protection of state information resources and critical information infrastructure against cyberattacks, as well as comprehensive improvement of the regulatory framework in the field of cybersecurity and information protection in order to strengthen the capabilities of the national cybersecurity system to counter cyber threats. The reform will be implemented by the Administration of the State Service for Special Communications and Information Protection, the Ministry of Digital Transformation and will be completed by the 1st quarter of 2025.

[122] Verkhovna Rada of Ukraine. (2017, October 5). *ЗАКОН УКРАЇНИ Про основні засади забезпечення кібербезпеки України.* [Law of Ukraine On the fundamentals of cybersecurity of Ukraine]. https://zakon.rada.gov.ua/laws/show/2163-19#Text

[123] Cabinet of Ministers of Ukraine. (2023, May 16). *ПОСТАНОВА Про затвердження Порядку пошуку та виявлення потенційної вразливості інформаційних (автоматизованих), електронних комунікаційних, інформаційно-комунікаційних систем, електронних комунікаційних мереж.* [Resolution On approval of the Procedure for searching and identifying potential vulnerabilities of information (automated), electronic communication, information and communication systems, electronic communication networks]. https://zakon.rada.gov.ua/laws/show/497-2023-%D0%BF#Text

58	**Information Security Regulation 2022/0084(COD)**		Not implemented	Not entered into force.
59	**Cybersecurity Regulation 2022/0085(COD)**		Not subject to implementation	
60	**European Cyber Resilience Act 2022/0272(COD)**		Not implemented	
61	**Machinery Regulation 2021/0105(COD)**		Not implemented	
62	**AI Act (Regulation) 2021/0106(COD)**		Not implemented	
63	**General Product Safety Regulation 2021/0170(COD)**		Not implemented	The General Product Safety Regulation (GPSR) is a new key instrument in the EU's product safety legislative framework, **replacing** the current General Product Safety Directive and the Food Imitation Directive **as of 13 December 2024.**
64	**AI Liability Directive 2022/0303(COD)**		Not implemented	Not entered into force.
65	**Digital Services Act (DSA Regulation) 2020/0361(COD)**		Not implemented	
66	**Transparency and targeting of political advertising (Regulation) 2021/0381(COD)**		Not implemented	The Regulation has entered into force, but most of its provisions will be applied **in the autumn of 2025.**
67	**Crypto-assets Regulation (MiCA) 2020/0265(COD)**	The Law of Ukraine "On Virtual Assets"[124] Draft Law No. 10225 and Draft Law No. 10225-1	Not implemented	The law never came into force, as it was supposed to start working from the date of entry into force of the Law of Ukraine on Amendments to the Tax Code of Ukraine regarding the peculiarities of taxation of transactions with virtual assets, but not before the date of publication of this Law. This draft law was never developed. Instead, two draft laws were developed and submitted, which are currently being discussed and finalised by a working group under the VRU Committee.[125]
68	**Regulation on distortive foreign subsidies 2021/0114(COD)**		Not implemented	

[124] Verkhovna Rada of Ukraine. (2022, February 17). *ЗАКОН УКРАЇНИ Про віртуальні активи*. [Law of Ukraine On virtual assets]. https://zakon.rada.gov.ua/laws/show/2074-20#Text

[125] Nosov, V. (2024, February 13). *Який законопроєкт про обіг віртуальних активів дозволить бізнесу розвиватися.* [Which draft law on virtual assets turnover will enable business in Ukraine]. Ekonomichna Pravda. https://epravda.com.ua/columns/2024/02/13/709876/

69	**Platform Work Directive 2021/0414(COD)**		Not implemented	Entered into force in November 2024.
70	**Single Market Emergency Instrument (SMEI) 2022/0278 (COD)**		Not implemented	REGULATION (EU) 2024/2747 entered into force in November 2024.

References

Agapova, V. (2024, May 15). *«Хліб» замість «металу»: як Україна намагається втриматися на міжнародних товарних ринках*. ["Bread" instead of "metal": How Ukraine tries to maintain its position in international commodity markets]. Ukrinform. https://www.ukrinform.ua/rubric-economy/3863981-hlib-zamist-metalu-ak-ukraina-namagaetsa-vtrimatisa-na-miznarodnih-tovarnih-rinkah.html

Cabinet of Ministers of Ukraine. (1994, March 19). *ПОСТАНОВА Про реалізацію окремих положень Закону України «Про захист прав споживачів».* [RESOLUTION On Implementation of Certain Provisions of the Law of Ukraine 'On Protection of Consumer Rights']. http://zakon3.rada.gov.ua/laws/show/172-94-%D0%BF

Cabinet of Ministers of Ukraine. (2002, February 26). *НАКАЗ Про затвердження Правил торгівлі на ринках.* [ORDER On Approval of the Rules of Trading in the Markets]. http://zakon5.rada.gov.ua/laws/show/z0288-02

Cabinet of Ministers of Ukraine. (2006, June 15). *ПОСТАНОВА Про затвердження Порядку провадження торговельної діяльності та правил торговельного обслуговування на ринку споживчих товарів.* [RESOLUTION On Approval of the Procedure for Conducting Trading Activities and Rules for Trade Services in the Consumer Goods Market]. http://zakon5.rada.gov.ua/laws/show/833-2006-%D0%BF

Cabinet of Ministers of Ukraine. (2013, May 15*). РОЗПОРЯДЖЕННЯ Про Основні засади розвитку інформаційного суспільства в Україні на 2007-2015 роки*. [Order On Approval of the Strategy for the Development of the Information Society in Ukraine]. https://zakon.rada.gov.ua/laws/show/386-2013-%D1%80#Text

Cabinet of Ministers of Ukraine. (2015, October 21). *ПОСТАНОВА Про затвердження Положення про набори даних, які підлягають оприлюдненню у формі відкритих даних.* **[**RESOLUTION On Approval of the Regulation on Data Sets to be Disclosed in the Form of Open Data]. https://zakon.rada.gov.ua/laws/show/835-2015-%D0%BF#Text

Cabinet of Ministers of Ukraine. (2017, May 24). *ПОСТАНОВА Про затвердження Технічного регламенту радіообладнання.* [Resolution On Approval of the Technical Regulation of Radio Equipment]. https://zakon.rada.gov.ua/laws/show/355-2017-%D0%BF#Text

Cabinet of Ministers of Ukraine. (2018). *РОЗПОРЯДЖЕННЯ Про схвалення Концепції розвитку цифрової економіки та суспільства України на 2018-2020 роки та затвердження плану заходів щодо її реалізації*. [Order On the approval of the Concept for the Development of the Digital Economy and Society of Ukraine for 2018–2020 and the action plan for its implementation]. https://zakon.rada.gov.ua/laws/show/67-2018-%D1%80#Text

Cabinet of Ministers of Ukraine. (2020, June 12). *ПОСТАНОВА Про затвердження Програми діяльності Кабінету Міністрів України.* [Resolution On Approval of the Program of Activities of the Cabinet of Ministers of Ukraine]. https://zakon.rada.gov.ua/laws/show/471-2020-%D0%BF#Text

Cabinet of Ministers of Ukraine. (2020, March 3). *Деякі питання діяльності підрозділів з питань цифрового розвитку, цифрових трансформацій і цифровізації центральних та місцевих органів виконавчої влади та заступників керівників центральних органів виконавчої влади, обласних, Київської та Севастопольської міських державних адміністрацій з питань цифрового розвитку, цифрових тhрансформацій і цифровізації*. [Some issues related to the activities of digital development, digital transformation and digitalization units of central and local executive authorities and deputy heads of central executive authorities, regional, Kyiv and Sevastopol city state administrations on digital development, digital transformation and digitalization]. https://zakon.rada.gov.ua/laws/show/194-2020-%D0%BF#Text

Cabinet of Ministers of Ukraine. (2021, March 3). *Про затвердження Національної економічної стратегії на період до 2030 року.* [On Approval of the National Economic Strategy until 2030]. https://zakon.rada.gov.ua/laws/show/179-2021-%D0%BF#Text

Cabinet of Ministers of Ukraine. (2023, May 16). *ПОСТАНОВА Про затвердження Порядку пошуку та виявлення потенційної вразливості інформаційних (автоматизованих), електронних комунікаційних, інформаційно-комунікаційних систем, електронних комунікаційних мереж.* [On approval of the Procedure for searching and identifying potential vulnerabilities of information (automated), electronic communication, information and communication systems, electronic communication networks]. https://zakon.rada.gov.ua/laws/show/497-2023-%D0%BF#Text

Cabinet of Ministers of Ukraine. (2023, September 5). *РОЗПОРЯДЖЕННЯ Про затвердження переліку показників Індексу цифрової економіки та суспільства (DESI).* [Resolution List of indicators of the Digital Economy and Society Index (DESI)]. https://zakon.rada.gov.ua/laws/show/774-2023-%D1%80#Text

Cabinet of Ministers of Ukraine. (2024, March 18). *Про схвалення Плану України.* [On Approval of the Plan of Ukraine, No. 244-r]. https://zakon.rada.gov.ua/laws/show/244-2024-%D1%80#Text

Cabinet of Ministers of Ukraine. (2024, October 29). *ПОСТАНОВА Про реалізацію експериментального проекту щодо організації проведення дослідження високотехнологічних засобів методом "Sandbox"*. [Resolution On the Implementation of an Experimental Project for Conducting Research on High-Tech Means Using the 'Sandbox' Method]. https://zakon.rada.gov.ua/laws/show/1238-2024-%D0%BF#Text

Central Certification Authority of Ukraine. (n.d.). *Оцінка стану розвитку сфери електронних довірчих послуг.* [Assessment of the development of electronic trust services.] https://czo.gov.ua/development

Communication team of the Office of the Vice Prime Minister for European and Euro-Atlantic Integration. (2020, December 12). *Економічні переваги від інтеграції у Єдиний цифровий ринок ЄС – результати дослідження.* [Economic benefits of integration into the EU's Digital Single Market - research findings]. https://eu-ua.kmu.gov.ua/news/ekonomichni-perevagy-vid-integratsiyi-u-yedynyj-tsyfrovyj-rynok-yes-rezultaty-doslidzhennya/

European Commission. (2024, July 10). *Commission welcomes a twelve-month roaming extension for affordable calls to and from Ukraine*. European Commission Press. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_3721

European Commission. (2024, July 2). *DESI 2024 methodological note.* https://ec.europa.eu/newsroom/dae/redirection/document/106717

European Commission. (2024, October 30). *Ukraine report 2024*. Directorate-General for Neighbourhood and Enlargement Negotiations. https://neighbourhood-enlargement.ec.europa.eu/ukraine-report-2024_en?fbclid=IwY2xjawGQnqJleHRuA2FlbQIxMAABHaQT5geEZAKY1X-zQVY7um5LuQusK5mPvHFnIByXk3yq7nJHCAMNkiuAJCg_aem_4IhWMwib6w4Ros6K6nVkgg

European Commission. (n.d.). *Digital Economy and Society Index (DESI)*. Digital Strategy. https://digital-strategy.ec.europa.eu/en/policies/desi

European Commission. (n.d.). *EU-Ukraine relations*. https://neighbourhood-enlargement.ec.europa.eu/european-neighbourhood-policy/countries-region/ukraine_en

European Commission. (n.d.). *The Digital Economy and Society Index (DESI)*. https://digital-strategy.ec.europa.eu/en/policies/desi

European Commission. (n.d.). *The DIGITAL Europe Programme – Work Programmes*. https://digital-strategy.ec.europa.eu/en/activities/work-programmes-digital

European Union & Ukraine. (2014). *УГОДА ПРО АСОЦІАЦІЮ між Україною, з однієї сторони, та Європейським Союзом, Європейським співтовариством з атомної енергії і їхніми державами-членами, з іншої сторон.* [ASSOCIATION AGREEMENT between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their Member States, on the other hand].https://zakon.rada.gov.ua/laws/show/984_011#Text

European Union (2019, April 17). *Regulation (EU) 2019/881 of the European Parliament and of the Council of 17 April 2019 on ENISA (the European Union Agency for Cybersecurity) and on information and communications technology cybersecurity certification and repealing Regulation (EU) No 526/2013 (Cybersecurity Act).* https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R0881

European Union Agency for Cybersecurity. (n.d.). *ENISA*. https://www.enisa.europa.eu/

EU-Ukraine Civil Society Platform. (2019, December 3). *Інтеграція України до Єдиного цифрового ринку Європейського Союзу: виклики, можливості та бар'єри*. [Integration of Ukraine into the European Union's Digital Single Market: Challenges, Opportunities, and Barriers]. https://eu-ua-csp.org.ua/media/uploads/Integration%20to%20EU%20DSM_Ukr%20side_UA.pdf

Google Docs. (n.d.). *Інформація щодо процесу інтеграції України до Єдиного цифрового ринку ЄС* [Information on the process of Ukraine's integration into the EU Digital Single Market] https://docs.google.com/document/d/1H6o28O7s8lnKmUmF9X7aEz-iNY-dyoR0kWu68A-87SAg/edit?tab=t.0

Hloba, D. (2024, May 23). *Адаптація – не клонування: як депутати хочуть витратити мільярди на захист персональних даних* [Adaptation is not cloning: how MPs want to spend billions on personal data protection]. Mind.ua ._https://mind.ua/openmind/20273976-adaptaciya-ne-klonuvannya-yak-deputati-hochut-vitratiti-milyardi-na-zahist-personalnih-danih?fbclid=IwY2xjawKFlWdleHRuA2FlbQIxMABicmlkETFkR0x4Zmp0WURWNmwySzlGAR-5nmAndNP7yk_kJTd9cKr2mZ3mg3wlGofWkfkmEYuYikSr2TXjC2uZsyTekSQ_aem_E-coEPjVZ-09tlAc-NehFSQ

Horizon Europe Office in Ukraine. (n.d.). *Specific support for Ukrainian research and innovation*. https://horizon-europe.org.ua/en/about-he/support-for-ukraine/

Hotyn, R. (2023, November 8). *Чи вступить Україна до ЄС у 2030 році?* [Will Ukraine join the EU in 2030?]. Radio Svoboda. https://www.radiosvoboda.org/a/ukrayina-chlenstvo-v-yees-2030-rik/32675010.html

I-UA.tv. (2025, February 20). *У законопроєктах №8087, 11220 та 12207 заховано знищення національного бізнесу — Пєтухов.* [The legislative drafts No. 8087, 11220, and 12207 contain provisions that could destroy national business, says Pietukhov]. https://i-ua.tv/news/90097-u-zakonoproiektakh-8087-11220-ta-12207-zakhovano-znyshchennia-natsionalnoho-biznesu-pietukhov

Ivanov, O. (2024, February 14). *Обов'язкове інформування, контроль та великі штрафи: як новий законопроєкт змінює правила захисту персональних даних.* [Mandatory notification, control, and large fines: How the new bill changes personal data protection rules]. Ukrinforum. https://www.ukrinform.ua/rubric-polytics/3826649-obovazkove-informuvanna-kontrol-ta-veliki-strafi-ak-novij-zakonoproekt-zminue-pravila-zahistu-personalnih-danih.html

Kosse, I., & Vdovychenko, V. (2023, December 26). *Скільки коштує вступ України в ЄС*. [How much does Ukraine's EU accession cost?]. LB.ua. https://lb.ua/world/2023/12/26/590527_skilki_koshtuie_vstup_ukraini_ies.html

Kuzmenko, Y. (2024, June 19). *«Роумінг як вдома» з ЄС діятиме щонайменше 4 місяці — Мінцифри* [«Roaming like at home» with the EU will last at least 4 months — Ministry of Digital Transformation]. Suspline News. https://suspilne.media/772245-rouming-ak-vdoma-z-es-diatime-sonajmense-4-misaci-mincifri/

Lytvynov, O. M., & Orlov, Y. V. (2024). Criminal Code of Ukraine and Directive (EU) 2019/713: A Comparative Legal Analysis in the Context of Acquis Communautaire. *Visnyk Kryminolohichnoi Asotsiatsii Ukrainy*, (2), 37–52. https://www.researchgate.net/publication/385016275_KRIMINALNIJ_KODEKS_UKRAINI_TA_DIREKTIVA_ES_2019713_EVROPEJSKOGO_PARLAMENTU_TA_RADI_VID_17042019_PRO_BOROTBU_Z_SAHRAJSTVOM_I_PIDROBKOU_BEZGOTIVKOVIH_PLATIZNIH_ZASOBIV_PORIVNALNO-PRAVOVIJ_ANALIZ_V_KONTE

Marcus, J. S., Sekut, K., & Zenner, K. (2024, 6. Juni). *A dataset on EU legislation for the digital world*. Bruegel. https://www.bruegel.org/dataset/dataset-eu-legislation-digital-world

Melnytska, Y. (2019, August 30). *Звіт N-iX: Доходи в IT-сфері у 2019 році складуть $5 мільярдів*. [N-iX report: Revenues in the IT sector will amount to $5 billion in 2019.]. Investory News. https://investory.news/zvit-n-ix-doxodi-v-it-sferi-u-2019-roci-skladut-5-milyardiv/

Ministry of Digital Transformation of Ukraine. (2023, February 3). *Наближаємось до цифрового безвізу з ЄС: результати зустрічі Уряду України з Колегією Єврокомісії*. [We are approaching digital visa-free travel with the EU: Results of the meeting between the Ukrainian government and the European Commission]. https://thedigital.gov.ua/news/nablizhaemos-do-tsifrovogo-bezvizu-z-es-rezultati-zustrichi-uryadu-ukraini-z-kolegieyu-evrokomisii

Ministry of Digital Transformation of Ukraine. (n.d.). 3. *Аналіз на відповідність політиці та правовій базі, передбачений Рішенням 676/2002 / ЄС. Гармонізація використання радіочастотного спектра України з урахуванням інтересів усіх сфер діяльності та категорій споживачів.* [Analysis of Compliance of Policies and Legal Framework as Provided by Decision 676/2002/EC: Harmonization of Radio Frequency Spectrum Use in Ukraine Considering the Interests of All Activity Spheres and Consumer Categories]. https://thedigital.gov.ua/projects/yevrointegraciya/roadmap/3-analiz-na-vidpovidnist-polititsi-ta-pravoviy-bazi-peredbacheniy-rishennyam-6762002-es-garmonizatsiya-vikoristannya-radiochastotnogo-spektra-ukraini-z-urakhuvannyam-interesiv-usikh-sfer-diyalnosti-ta-kategoriy-spozhivachiv

Ministry of Digital Transformation of Ukraine. (n.d.). *8. Законодавче врегулювання питання відкритого доступу до Інтернету.* [Legislative Regulation of Open Internet Access]. https://thedigital.gov.ua/projects/yevrointegraciya/roadmap/8-zakonodavche-vregulyuvannya-pitannya-vidkritogo-dostupu-do-internetu

Ministry of Digital Transformation of Ukraine. (n.d.). *Дорожня карта*. [Roadmap]. https://thedigital.gov.ua/projects/yevrointegraciya/roadmap

Ministry of Digital Transformation of Ukraine. (n.d.). *Мінцифра представила оновлену Дорожню карту інтеграції до Єдиного цифрового ринку ЄС* [The Ministry of Digital Transformation presented an updated roadmap for integration into the EU Digital Single Market] https://thedigital.gov.ua/news/mintsifra-predstavila-onovlenu-dorozhnyu-kartu-integratsii-do-edinogo-tsifrovogo-rinku-es

Ministry of Digital Transformation of Ukraine. (n.d.). *СТРАТЕГІЯ РОЗВИТКУ СФЕРИ ЕЛЕКТРОННИХ КОМУНІКАЦІЙ УКРАЇНИ – 2030. [Strategy for the Development of Ukraine's Electronic Communications Sector – 2030]*. https://thedigital.gov.ua/storage/uploads/files/%D0%90%D0%BD%D0%B0%D0%BB%D1%96%D1%82%D0%B8%D1%87%D0%BD%D1%96%20%D0%BC%D0%B0%D1%82%D0%B5%D1%80%D1%96%D0%B0%D0%BB%D0%B8.pdf

Ministry of Economy and European Integration of Ukraine. (2003, July 11). *НАКАЗ Про затвердження Правил роздрібної торгівлі продовольчими товарами*. [ORDER On Approval of the Rules of Retail Trade in Food Products]. http://zakon2.rada.gov.ua/laws/show/z0628-03

Ministry of Economy of Ukraine. (2024, March). *План для Ukraine Facility, 2024-2027.* [Ukraine Facility Plan, 2024-2027]. Page 379. https://www.ukrainefacility.me.gov.ua/wp-content/uploads/2024/03/plan-ukraine-facility.pdf

Ministry of Economy of Ukraine. (n.d.). Ukraine Facility Plan. https://www.ukrainefacility.me.gov.ua/; Ukraine Facility Plan Implementation Progress. https://app.powerbi.com/view?r=eyJrIjoiYWEwNGNmNmYtOGMzZC00OTUwLWEwZTgtZjJlODQwZGZjMmM5IiwidCI6ImNlMWIwNDA5LWQ5OWQtNDQ2Mi05YTY3LTViZmQ2Y2I0YTE0NyJ9

Minstry of Economy of Ukraine. (2007, April 19). *НАКАЗ Про затвердження Правил роздрібної торгівлі непродовольчими товарами*. [ORDER On Approval of the Rules of Retail Trade in Non-Food Products]. http://zakon0.rada.gov.ua/laws/show/z1257-07

Myronovych, V. (2023, March 14). *Коли в Україні з'явиться повноцінний 5G і що це означає для ринку.* When will Ukraine have full-fledged 5G, and what does this mean for the market? SPEKA. https://speka.media/koli-v-ukrayini-zyavitsya-povnocinnii-5g-i-shho-oznacaje-dlya-rinku-rozblokuvannya-castot-3400-3600-mgc-9wd63p?utm_source=google&utm_medium=cpc&utm_campaign=20972733776&gad_source=1

National Bank of Ukraine. (2023, May 3). *ПОСТАНОВА Про затвердження Положення про автентифікацію та застосування посиленої автентифікації на платіжному ринку*. [Resolution On Approval of the Regulation on Authentication and Application of Enhanced Authentication in the Payment Market]. https://zakon.rada.gov.ua/laws/show/v0058500-23#Text

National Bank of Ukraine. (2024). *Платіжний баланс у 2024 році.* [Balance of Payments in 2024.] https://bank.gov.ua/files/ES/State_y.pdf

National Bank of Ukraine. (2024, March 15). *ПОСТАНОВА Про затвердження Положення про вимоги до системи управління надавача фінансових платіжних послуг*. [On Approval of the Regulation on Requirements to the Management System of a Financial Payment Service Provider]. https://zakon.rada.gov.ua/laws/show/v0123500-24#Text

Nosov, V. (2024, February 13). *Який законопроєкт про обіг віртуальних активів дозволить бізнесу розвиватися.* [Which draft law on virtual assets turnover will enable business in Ukraine]. Ekonomichna Pravda. https://epravda.com.ua/columns/2024/02/13/709876/

President of Ukraine. (2015, January 14). *УКАЗ ПРЕЗИДЕНТА УКРАЇНИ Про Стратегію сталого розвитку «Україна - 2020»* [Decree of the President of Ukraine On the Sustainable Development Strategy «Ukraine - 2020»]. https://www.president.gov.ua/documents/52015-18245

President of Ukraine. (2019, September 30). *Про Цілі сталого розвитку України на період до 2030 року.* [On the Sustainable Development Goals of Ukraine until 2030]. https://zakon.rada.gov.ua/laws/show/722/2019#Text

Razumkov Center. (2022). *УКРАЇНА НА ШЛЯХУ ДО ЄС: РЕАЛІЇ І ПЕРСПЕКТИВИ*. [UKRAINE ON THE WAY TO THE EU: REALITIES AND PROSPECTS]. https://razumkov.org.ua/images/journal/NSD187-188_2022_ukr_full.pdf

Soroka, R. (2023, February 21). *Торік Україна експортувала до ЄС телекомунікаційних послуг на $87,5 млн.* [Last year, Ukraine exported IT services worth 875 million dollars to the EU.] SPEKA. https://speka.media/torik-ukrayina-eksportuvala-do-jes-kompyuternix-poslug-na-875-mln-dolariv-vm8nzp

Sydorenko, S. (2024, December 6). *Від тиску до компромісів, від Єрмака до Порошенка: спогади колишнього посла ЄС в Україні. From Pressure to Compromises, from Yermak to Poroshenko: Memoirs of the Former EU Ambassador to Ukraine*. European Pravda. https://www.eurointegration.com.ua/articles/2024/12/6/7199623/

Trade+ Center for International Trade Analysis, Kyiv School of Economics, & Ukrainian Center for European Policy. (2020). *Ukraine's integration into the EU Digital Single Market: Potential economic benefits.* Ministry of Digital Transformation of Ukraine.

Ukraine. (2021, November 22). *СТРАТЕГІЯ інтеграції України до Єдиного цифрового ринку Європейського Союзу («Дорожня карта»).* [Strategy for integration into the EU digital single market («Roadmap»)]. https://docs.google.com/document/d/1XgGb7AWSs7Ktl6Pl5xuYD-pLFV0mtOTSN/edit?tab=t.0#heading=h.30j0zll

Ukrainian Helsinki Human Rights Union. (2021, November 26). *Аналіз проєкту Закону України «Про Національну комісію з питань захисту персональних даних та доступу до публічної інформації» № 6177.* [Analysis of the Draft Law of Ukraine «On the National Commission for the Protection of Personal Data and Access to Public Information» No. 6177.] https://www.helsinki.org.ua/articles/analiz-proiektu-zakonu-ukrainy-pro-natsionalnu-komisiiu-z-pytan-zakhystu-personalnykh-danykh-ta-dostupu-do-publichnoi-informatsii-6177/

Ukrainian Startup Fund. (n.d.). *Ukrainian Startup Fund*. https://usf.com.ua/

Ukrinform. (2024, September 5). *Стефанішину призначили віцепрем'єркою з питань євроінтеграції - міністеркою юстиції.* [Stefanishyna appointed Deputy Prime Minister for European Integration and Minister of Justice]. https://www.ukrinform.ua/rubric-polytics/3902328-stefanisinu-priznacili-vicepremerkou-z-pitan-evrointegracii-ministrom-usticii.html

UNIAN. (2017, November 29). *До 2030 року до 800 мільйонів людей можуть втратити робочі місця через роботів – аналітики.* [*By 2030, up to 800 million people could lose their jobs due to robots – analysts*]. UNIAN Editorial. https://www.unian.ua/science/2269721-do-2030-roku-do-800-milyoniv-lyudey-mojut-vtratiti-robochi-mistsya-cherez-robotiv-analitiki.html

V.M. Glushkov Institute of Cybernetics of the National Academy of Sciences of Ukraine. (n.d.). *Історія.* [History]. https://incyb.kiev.ua/institut/about-institute/istoriya

Verkhovna Rada der Ukraine. (1992, 2. Oktober). *ЗАКОН УКРАЇНИ Про інформацію*. [Law of Ukraine On Information]. https://zakon.rada.gov.ua/laws/show/2657-12

Verkhovna Rada of Ukraine. (1991, May 12). *ЗАКОН УКРАЇНИ Про захист прав споживачів.* [Law of Ukraine on Consumer Protection]. https://zakon.rada.gov.ua/laws/show/1023-12

Verkhovna Rada of Ukraine. (1992, October 2). *ЗАКОН УКРАЇНИ Про інформацію*. [Law of Ukraine - On Information]. https://zakon.rada.gov.ua/laws/show/2657-12

Verkhovna Rada of Ukraine. (1993, June 25). *ЗАКОН УКРАЇНИ Про науково-технічну інформацію.* [Law of Ukraine On Scientific and Technical Information]. https://zakon.rada.gov.ua/laws/show/3322-12#Text

Verkhovna Rada of Ukraine. (2001, April 5). *КРИМІНАЛЬНИЙ КОДЕКС УКРАЇНИ.* [Criminal Code of Ukraine]. https://zakon.rada.gov.ua/laws/show/2341-14#Text

Verkhovna Rada of Ukraine. (2003, January 16). *Господарський кодекс України.* [Commercial Code of Ukraine]. http://zakon2.rada.gov.ua/laws/show/436-15

Verkhovna Rada of Ukraine. (2003, January 16). *Цивільний кодекс України.* [Civil Code of Ukraine]. https://zakon.rada.gov.ua/laws/show/435-15#Text

Verkhovna Rada of Ukraine. (2005, September 6). *Про внесення змін до Закону України «Про якість та безпеку харчових продуктів та продовольчої сировини».*[On Amendments to the Law of Ukraine 'On Quality and Safety of Food Products and Food Raw Materials']. http://zakon5.rada.gov.ua/laws/show/2809-15

Verkhovna Rada of Ukraine. (2007). *Про Основні засади розвитку інформаційного суспільства в Україні на 2007-2015 роки*. [On the Basic Principles of the Development of the Information Society in Ukraine for 2007–2015]. https://zakon.rada.gov.ua/laws/show/537-16#Text

Verkhovna Rada. (2010, June 1). *Law of* Ukraine *On Protection of Personal Data*. https://zakon.rada.gov.ua/laws/show/2297-17?lang=en#Text

Verkhovna Rada of Ukraine. (2011, January 13). *ЗАКОН УКРАЇНИ Про доступ до публічної інформації.* [Law of Ukraine On Access to Public Information]. https://zakon.rada.gov.ua/laws/show/2939-17#Text

Verkhovna Rada of Ukraine. (2012, October 2). *ЗАКОН УКРАЇНИ Про внесення змін до Закону України «Про державне регулювання діяльності у сфері трансферу технологій».* [Law of Ukraine On Amendments to the Law of Ukraine ‚On State Regulation of Activities in the Field of Technology Transfer']. https://zakon.rada.gov.ua/laws/show/5407-17#Text

Verkhovna Rada of Ukraine. (2014). *Угода про асоціацію між Україною, з однієї сторони, та Європейським Союзом, Європейським співтовариством з атомної енергії і їхніми державами-членами, з іншої сторони*. [Association Agreement between Ukraine, of the one part, and the European Union, the European Atomic Energy Community and their Member States, of the other part]. https://zakon.rada.gov.ua/laws/show/984_011#Text

Verkhovna Rada of Ukraine. (2014, June 5). *ЗАКОН УКРАЇНИ Про стандартизацію*. [Law of Ukraine on Standardisation]. https://zakon.rada.gov.ua/laws/show/1315-18#Text

Verkhovna Rada of Ukraine. (2015, December 25). *ЗАКОН УКРАЇНИ Про публічні закупівлі.* [Law of Ukraine On Public Procurement]. https://zakon.rada.gov.ua/laws/show/922-19#Text

Verkhovna Rada of Ukraine. (2015, January 15). *ЗАКОН УКРАЇНИ Про технічні регламенти та оцінку відповідності.* [Law of Ukraine On Technical Regulations and Conformity Assessment]. https://zakon.rada.gov.ua/laws/show/124-19#Text

Verkhovna Rada of Ukraine. (2015, September 3). *ЗАКОН УКРАЇНИ Про електронну комерцію*. [Law of Ukraine On Electronic Commerce]. https://zakon.rada.gov.ua/laws/show/675-19#Text

Verkhovna Rada of Ukraine. (2017, October 5). *ЗАКОН УКРАЇНИ Про електронну ідентифікацію та електронні довірчі послуги.* [Law of Ukraine On Electronic Identification and Electronic Trust Services]. https://zakon.rada.gov.ua/laws/show/2155-19

Verkhovna Rada of Ukraine. (2017, October 5). *ЗАКОН УКРАЇНИ Про основні засади забезпечення кібербезпеки України.* [Law of Ukraine On the fundamentals of cybersecurity of Ukraine]. https://zakon.rada.gov.ua/laws/show/2163-19#Text

Verkhovna Rada of Ukraine. (2019, July 10). *Про схвалення Стратегії розвитку сфери інноваційної діяльності на період до 2030 року.* [On approval of the Strategy for the Development of the Innovation Sector for the period up to 2030]. https://zakon.rada.gov.ua/laws/show/526-2019-%D1%80#Text

Verkhovna Rada of Ukraine. (2019, November 7). *ЗАКОН УКРАЇНИ Про основні засади забезпечення кібербезпеки України.* [Law of Ukraine No. 2163-VIII on the Financial System of Ukraine]. https://zakon.rada.gov.ua/laws/show/2163-19#Text

Verkhovna Rada of Ukraine. (2020, December 16). ЗАКОН УКРАЇНИ *Про електронні комунікації - Розділ XIII. УНІВЕРСАЛЬНІ ЕЛЕКТРОННІ КОМУНІКАЦІЙНІ ПОСЛУГИ.* [LAW OF UKRAINE ON ELECTRONIC COMMUNICATIONS - Section XIII. UNIVERSAL ELECTRONIC COMMUNICATION SERVICES]. https://zakon.rada.gov.ua/laws/show/1089-20#n1825

Verkhovna Rada of Ukraine. (2021, December 16). *ЗАКОН УКРАЇНИ - Про Національну комісію, що здійснює державне регулювання у сферах електронних комунікацій, радіочастотного спектра та надання послуг поштового зв'язку.* [Law of Ukraine No. 1971-IX On the National Commission for the State Regulation of Electronic Communications, Radio Frequency Spectrum and Postal Services]. https://zakon.rada.gov.ua/laws/show/1971-20#Text

Verkhovna Rada of Ukraine. (2021, June 30). ЗАКОН УКРАЇНИ Про платіжні послуги. [Law of Ukraine On Payment Services]. https://zakon.rada.gov.ua/laws/show/1591-20#Text

Verkhovna Rada of Ukraine. (2021, March 3). *Про затвердження Національної економічної стратегії на період до 2030 року*. [National Economic Strategy for the period up to 2030]. Page 253. https://zakon.rada.gov.ua/laws/show/179-2021-%D0%BF#Text

Verkhovna Rada of Ukraine. (2022). *Про офіційну статистику.* [Official Statistics]. https://zakon.rada.gov.ua/laws/show/2524-20#Text

Verkhovna Rada of Ukraine (2022, January 31). *Проект Закону про цифровий контент та цифрові послуги -Висновок (експертиза щодо європейської інтеграції).* [Draft Law on Digital Content and Digital Services - Opinion (European Integration Review)]. https://itd.rada.gov.ua/billInfo/Bills/CardByRn?regNum=6576&conv=9

Verkhovna Rada of Ukraine. (2022, December 1). *ЗАКОН УКРАЇНИ Про авторське право і суміжні права.* [Law of Ukraine On Copyright and Related Rights]. https://zakon.rada.gov.ua/laws/show/2811-20#n855

Verkhovna Rada of Ukraine. (2022, December 13). *ЗАКОН УКРАЇНИ Про медіа*. [Law of Ukraine On Media]. https://zakon.rada.gov.ua/laws/show/2849-20#n2413

Verkhovna Rada of Ukraine. (2022, February 17). *ЗАКОН УКРАЇНИ Про віртуальні активи*. [Law of Ukraine On virtual assets]. https://zakon.rada.gov.ua/laws/show/2074-20#Text

Verkhovna Rada of Ukraine. (2022, October 25). *Проект Закону про захист персональних даних.* [Draft Law on Personal Data Protection]. https://itd.rada.gov.ua/billinfo/Bills/Card/40707

Verkhovna Rada of Ukraine. (2023, August 10). *ЗАКОН УКРАЇНИ Про цифровий контент та цифрові послуги*. [Law of Ukraine On Digital Content and Digital Services]. https://zakon.rada.gov.ua/laws/show/3321-20#Text

Verkhovna Rada of Ukraine. (2023, June 10). *ЗАКОН УКРАЇНИ Про захист прав споживачів.* [Law of Ukraine On Consumer Protection]. https://zakon.rada.gov.ua/laws/show/3153-20#n259

World Bank. (2020). *Recommendations to the Ministry of Digital Transformation of the Government of Ukraine for a national broadband development strategy and implementation plan 2020–2025*. World Bank. https://documents1.worldbank.org/curated/en/896591621848142525/pdf/A-National-Broadband-Development-Strategy-and-Implementation-Plan-Recommendations-to-the-Ministry-of-Digital-Transformation-Government-of-Ukraine.pdf

Zenner, K. (2023). *Digital factsheet #4: A dataset on EU legislation for the digital world* [PDF]. Digitizing Europe. https://www.kaizenner.eu/_files/ugd/88fe02_76e1a3317443495aabcd5ba4a48f35e6.pdf

Zenner, K. (n.d.). *About me*. Digitizing Europe. https://www.kaizenner.eu/about

About the author

Oleksiuk Liliia has a PhD in Public Administration, and is a lawyer, member of the Ukrainian side of the EU–Ukraine Civil Society Platform and Head of the NGO All-Ukrainian Association "Information Security and Information Technology". She is also a specialist in personal data protection, building nationwide automated systems and electronic trust services, and a researcher focusing on Ukraine's integration into the EU's digital market.

She has worked at a state-owned enterprise that ensured the functioning of large-scale state registers (1998–2011), was the First Deputy Head of the State Service of Ukraine for Personal Data Protection (2011–2014), and has been a freelance adviser to the Verkhovna Rada Committee on Digital Transformation (2019–2023). Since 2023 she has been a freelance adviser to the Verkhovna Rada Committee on National Security, Defence and Intelligence, and an expert for the USAID Activity "Cybersecurity of Ukraine's Critical Infrastructure" on the development of legislation in the field of cybersecurity and critical infrastructure (2020–2023) and for the Council of Europe Project "Supporting the Implementation of European Human Rights Standards in Ukraine" on the harmonisation of data protection policy, legislation and practice with European standards and Council of Europe Convention 108+ (2023–present).

Liliia received her MA in Law at the Kyiv University of Tourism, Economics and Law in 2003, an MA in Public Development Management the National Academy of Public Administration under the President of Ukraine in 2015, and a PhD in Science in Public Administration in 2018.

About the project

The paper was developed within the framework of the Ukraine Perspectives project. The project aims to generate new insights into current regional developments, sectoral EU alignment, and the reconstruction process in Ukraine through policy-relevant analyses, thereby contributing to a forward-looking German foreign policy regarding Ukraine. Ukraine Perspectives provides a platform for expert exchange, strengthens Ukrainian voices in the German political debate, and promotes new partnerships between Ukrainian and German think tanks.

Auswärtiges Amt

About the publishers

Institut für Europäische Politik – Since 1959, IEP has been active in the field of European integration as a non-profit organisation. It is one of Germany's leading research institutes on foreign and European policy. IEP works at the intersection of academia, politics, administration, and civic education. Since 2015, IEP has been working intensively on Ukraine and the Eastern Partnership and has been implementing projects with partners to strengthen civil society on the ground.

Institute for Economic Research and Policy Consulting – IER was founded in 1999 by high-ranking Ukrainian politicians and the German Advisory Group on Economic Reforms in Ukraine. The IER operates in the fields of macroeconomics, business climate, development of small and medium-sized enterprises (SMEs), foreign trade and financial markets, as well as regional and sectoral development. Since 2010, the European integration of Ukraine has also been a relevant research focus. In 2019, the IER was selected as one of the EU's strategic partners for supporting civil society in Ukraine.

Editor: Johanna Robinson
Layout: Dmytro Mokryy-Voronovskyy
Photo credit: Copyright ©marketlan/614444270/depositphotos.com

Berlin/Kyiv 2025

© Institut für Europäische Politik, 2025
Bundesallee 23
10717 Berlin
+49 (0)30 8891340
info@iep-berlin.de
www.iep-berlin.de

© Institute for Economic Research and Policy Consulting, 2025
Reytarska 8/5-A,
01054 Kyiv
+38 (044) 278-63-42
institute@ier.kyiv.ua
www.ier.com.ua

iep Institut für Europäische Politik

IER

All rights reserved.