Analytical report

Ukraine’s open data market: status, trends and impacts

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Authors:
Igor Burakovskyi, Anastasiia Kropova, Andrii Butin, Stanislav Yukhymenko, Veronika Movchan, Polina Kamenchuk, Uliana Suprun

Edited by Veronika Movchan

Reviewers: Yanina Liubyva, Maryna Ostrenska, Denys Hubashov, Dmytro Serheiev, Nadiia Konashchuk, Olha Gvozdyova

Language editor: Alina Pastukhova
Designer: Dmytro Mokriy-Voronovsky

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The analysis in the research focused on open data and, to the extent possible, its use in the data collection and synthesis. However, it should be noted that respondents may have interpreted the concept of open data differently, identifying it with a broader array of public information. Under these conditions, there is a possibility of mixing categories in responses, limiting the ability to estimate the frequency of individual indicators accurately.

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Abbreviations

AI	Artificial Intelligence
AML	Anti-Money Laundering
API	Application Programming Interface
CEC	Central Election Commission
CEFTA	Central European Free Trade Agreement
CSV	Comma-Separated Values
DGA	Domain Generation Algorithm
DPG	Digital Public Good
EFTA	European Free Trade Association
EIT	External Independent Testing
ESG risks	Environmental, Social and Governance Risks
EU	European Union
EUR	Euro
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
GET	German Economic Team
IER	Institute for Economic Research and Policy Consulting
IT	Information Technology
ITA	International Technical Assistance
JSC	Joint Stock Company
KYC	Know Your Customer
LLC	Limited Liability Company
ML	Machine Learning
NACP	National Agency on Corruption Prevention
NAIS	State Enterprise “National Information Systems”
NBU	National Bank of Ukraine
NGO	Non-Governmental Organisation
NHSU	National Health Service of Ukraine
NMT	National Multi-Subject Test
NSDC	National Security and Defence Council of Ukraine
OECD	Organisation for Economic Co-operation and Development
OSCE	Organisation for Security and Co-operation in Europe
OSI	Open Source Initiative

OSINT	Open Source Intelligence
PE	Private Entrepreneur
PSI	Public Sector Information
QES	Qualified Electronic Signature
SLC	State Land Cadastre
SRPR	State Register of Proprietary Rights to Immovable Property
STS	State Tax Service of Ukraine
TIN	Taxpayer Identification Number
UAH	Ukrainian hryvnia
UK	United Kingdom
UN	United Nations
US	United States
USAID	United States Agency for International Development
USD	US dollar
USEDE	Unified State Electronic Database on Education
USESCS	Unified State Electronic System in the field of Construction
USR	Unified State Register of Legal Entities, Individual Entrepreneurs and Public Organizations
USRCD	Unified State Register of Court Decisions
USREO	Unified State Register of Enterprises and Organizations of Ukraine
VAT	Value Added Tax
VRU	Verkhovna Rada of Ukraine

Executive summary

Open data in Ukraine is a component of public policy for digital transformation and is developing within the national data ecosystem. According to legislation, open data is public information in a format that enables automated processing, further reuse and free access.

Open data as a direction of Ukraine's public policy was launched in 2015 and has been developing rapidly since then. However, the Russian full-scale invasion became a critical point: some public data, in particular registers, were closed for security reasons. This affected users' needs, led to temporary complications in the market's functioning, and altered state priorities regarding the protection of information whose release could pose a threat to national security and territorial integrity. At the same time, the full-scale war emphasised the importance of data availability for anti-corruption control, logistics construction, verification of counterparties, implementation of humanitarian programs and reconstruction planning. The open data sphere found itself at the intersection of two requirements — transparency and security — which require new models of publication, access protection and risk management.

The open data market study was conducted in Ukraine from August to December 2025. It aimed to identify the market structure, assess its economic parameters, and determine the economic and social effects of data use in war conditions. The study analysed the market's main challenges and development prospects to ensure market stability and a positive contribution to the digital economy, anti-corruption policy, and the country's reconstruction.

The study included the collection of primary and secondary data on the market situation, challenges, and prospects. In particular, 43 interviews were conducted with open data providers , experts, representatives of companies providing services based on open data, and companies that are active users of open data; two focus groups and an online survey "Assessment of the Open Data Market in Ukraine" (138 responses). In addition, questions on open data were included in the New Monthly Enterprise Survey conducted by the IER, which received 475 responses.

The open data market core is estimated at approximately UAH 2.0 billion (USD 50.1 million), significantly below the market-size estimates from interview respondents, who claimed a range of USD 100-174 million. Accordingly, companies providing services based on open data accounted for about 0.02—0.05% of Ukraine's GDP in 2024, while the information and telecommunications sector accounted for about 4.7% of GDP. Meanwhile, the size of Ukraine's entire open data market is estimated at UAH 26.8 billion (USD 668 million), or about 0.2% of GDP, which is 13 times the income generated by the core market.

As of December 2025, the study found 128 active services and individual projects based on open data operating in Ukraine. The most active period for creating services was 2018-2020 (up to 20 new services each year). Key areas of service activity have been financial monitoring, compliance, legal analytics, anti-corruption solutions, and geoinformation services.

The level of open data integration directly correlates with the technological maturity of sectors: the more enterprises are involved in the digital economy, the more actively they use open data, particularly to increase efficiency, transparency, and competitiveness.

A business survey showed that 36.8% of companies use open data for internal analytics, another 12.2% integrate it into their products, and 4.6% perceive open data as the basis of their business model, even if they do not provide services based on it.

Representatives of the banking sector noted that open data is key to their activities, with up to 85% of strategic decisions made based on it. In insurance, this figure is 70-80% for risk-based insurance and 40-50% for life insurance. In the fields of legal services and corporate security services, open data accounts for 20—25% of all processes, primarily for monitoring legal cases and verifying counterparties.

The use of open data varies significantly across companies' sizes. The highest level of open data integration is observed among large enterprises, with 83% of respondents reporting that

it is actively used in their business model, compared to 56% among medium-sized enterprises, 44% among small enterprises, and 23% among micro-enterprises.

The role of open data in the development of Ukraine's economy goes far beyond the activities of open data services, covering a wide range of sectors — from finance and public administration to industry, transport and energy. However, the use of open data varies significantly by sector. The survey "Assessment of the Open Data Market in Ukraine" showed that open data is most important in the financial and banking sectors — 62% — and in the public sector — 52%. Professional services (47%) and trade (41%) also actively use open data to improve the efficiency of market processes. Respondents noted average importance in logistics (36%), IT (34%) and construction (30%). A smaller but noticeable impact of open data is observed in transport (27%), industry and energy (23% each), and the non-governmental sector (21%). The lowest indicators were recorded in the agricultural sector (20%) and in education and culture (6%).

Thus, open data has already become an essential element of economic activity in Ukraine. At this stage, users mainly turn to the most universal and convenient government portals, as they offer the easiest access and clear formats. Further development of the open data ecosystem requires greater attention to industry registers, data standardisation, and expanding the possibilities for their integration into various processes and services.

After 2022, the open data market in Ukraine faced new challenges, including the closure of some data and key registers without a transparent risk assessment. At the same time, many problems that existed before continue to limit the ecosystem's development significantly. Among them:

- limited or paid API access that makes automated use of open data difficult;
- outdated, incomplete or irregularly updated datasets;
- non-machine-readable formats that do not meet modern technical requirements;
- lack of open medical and social data, etc., which could have high social value;
- low-quality metadata;
- failure by providers to comply with the requirements of the Resolution of the Cabinet of Ministers of Ukraine No. 835 "On Approval of the Regulations on Data Sets Subject to Publication in the Form of Open Data";
- a shortage of data management professionals in the public sector, which complicates the implementation of quality open data publication and maintenance processes;
- growing distrust on the part of businesses, which is why companies are increasingly using the services of commercial data providers instead of using open government sets.

At the same time, open data has a significant social and economic impact. According to surveys, 81% of respondents believe that open data increases government transparency; another 69% think it reduces corruption risks; 52% note its impact on financial scoring; 45% on improving the quality of life of communities; and 42% on strengthening public control. In addition, 42% of respondents see the impact of open data on marketing research, and 29% on environmental monitoring.

The prospects for the development of the open data market in Ukraine are associated with the transition to a new model of openness — the creation of an integrated ecosystem between the public and private sectors, which involves the publication of company data for research and innovation.

Essential steps for the development of the open data ecosystem are the restoration of public access to state registers based on transparent security criteria; improving the quality, interoperability, and machine-readability of datasets; developing analytical services and supporting startups; training data users; and harmonising legislation with EU norms (Directive 2019/1024, Data Governance Act, Data Act, etc.).

Introduction

In Ukraine, open data is emerging as a tool for implementing public policy in the field of digital transformation and as a component of the national data ecosystem. In the regulatory and legal fields, open data is public information published in a format that enables automated processing, further reuse, and free access.

The sphere of open data in Ukraine began to take shape under the Law of Ukraine "On Access to Public Information", which, for the first time, enshrined the principles of openness and the possibility of further use of public information. In 2012-2014, this regulatory foundation was strengthened by the emergence of the first hackathons and public initiatives, in particular SocialBoost, which stimulated practical demand for data and the development of digital services. Another critical step was the launch of the national open data portal, data.gov.ua, in 2014. The next stage of state institutionalisation began in 2015 with the adoption of Resolution No. 835.

In the years that followed, open data has evolved from an experimental digital initiative into a fully-fledged element of public administration and the market. In parallel, open data-based services have developed, including legal, financial, analytical, and environmental products, helping to form a sustainable ecosystem of users and providers.

Ukraine takes part in leading global indices, in particular the Open Data Barometer and the Global Open Data Index (since 2015). Additionally, the country is assessed by the Open Data Inventory and the OECD OURdata Index, which analyse the use of data in public administration, the organisation of publication processes, and the level of citizen participation. Since 2020, Ukraine has also been included in the European Open Data Maturity Assessment, which compares EU countries and associated states along four key dimensions: public policy in the field of open data, the development of the national portal, the quality of published data and the actual impact of open data on society and the economy. Participation in these assessments demonstrates Ukraine's integration into the international open data ecosystem and allows tracking progress on a comparable basis.

As of the end of 2025, despite more than three years of full-scale Russian aggression, Ukraine is among the European leaders in open data. According to Open Data Maturity, in 2025, Ukraine ranked fourth among participating countries, namely the EU and several EFTA and CEFTA states. Moreover, Ukraine's open data maturity is estimated at 97.1%, compared with an average of 81.1% across the EU-27. Despite the war, Ukraine ranks fourth, following only France, Lithuania and Poland.

The full-scale Russian invasion became a critical point for the open data sphere — some registers were closed for security reasons, which changed the structure of demand, led to a temporary market decline and changed state priorities to protect critical information. At the same time, the war accelerated the request for data for anti-corruption control, logistics, verification of counterparties, humanitarian programs and reconstruction planning. The open data sphere found itself at the intersection of two requirements — transparency and security, which require new models of publication, access protection and risk management.

This study aims to identify the structure of the open data market, assess its economic parameters, transformation in wartime conditions, and economic and social effects of use, as well as identify the main problems facing the sector and development prospects that will ensure its sustainability and contribution to the digital economy, anti-corruption policy, and the reconstruction of the country.

It is devoted to the analysis of the use of open data and related public information in Ukraine. The primary focus is on open data as defined by current legislation and practices for its reuse. At the same time, the study recognised that, in practice, the boundary between open data and other forms of public information is not always clearly defined for users, which affects users' perceptions and interpretations of the relevant processes.

Why open data matters: an economic resource and a public good

Information in various forms has traditionally played a significant role in human life and today has become a driving force for social development. In practice, this means that information has become an indispensable resource used in the economy, politics, and social life.

In economics, information is a resource; its use by the private sector increases the productivity and efficiency of production and commercial activities. At the same time, information resources are an essential element in the spheres of public policy and public administration, where they are used not only to support operational processes but also to improve decision quality. Today, the formation and implementation of public policy increasingly rely on open data and analytics, which aligns with the global trend toward a systematic approach to Data-Driven Decision-Making. This process is especially characteristic of countries where digital transformation is a strategic direction, and Ukraine is no exception: we are observing the active development of digital tools, communication services, and solutions that improve interaction between government and society.

The scale and dynamics of the informatisation process, the depth and speed of digital technologies' penetration into almost all spheres of society, have put on the agenda the issue of access to information in a way that meets the public interest in the broad sense of the term. One way to address this issue is the emergence of initiatives to provide free, unlimited access to information sources for all interested parties. Their result was the emergence of a new class of public goods: digital public goods (DPGs).[1]

DPGs in the economic sense are goods that have three main characteristics, namely:

- non-excludability: the impossibility of excluding any entity from the number of consumers;
- non-rivalry: consumption of a good by one subject does not prevent consumption of the same good by others;
- consumption on a free basis, unlike private goods and services.

In a purely material sense, DPGs are considered as open-source software, open AI models, open standards, open content and open data. The DPGs' functioning is based on compliance with privacy principles, relevant national and international legislation, standards, and best practices, as well as the do-no-harm principle.

To determine whether a specific digital product can be considered a DPG, the Digital Public Goods Alliance[2] (an international multilateral initiative under the UN auspices) developed a special Digital Public Goods Standard. The DPGs Standard is actually a set of requirements, compliance with which enables a particular digital product to be recognised as a digital public good (Table 1).

[1] Gruen, Nicholas. Building the Public Goods of the Twenty-First Century' Digital public goods in the age of the data revolution// Building the Public Goods of the Twenty-First Century - Evonomics
[2] Digital Public Goods Alliance. https://www.digitalpublicgoods.net/who-we-are

Table 1. Digital Public Goods Standard: Requirements and Comments

Requirements	Comment
1. Relevance with the UN Sustainable Development Goals	Digital solutions should contribute to achieving the UN Sustainable Development Goals. That is about joint actions by the global community aimed at improving people's well-being, developing inclusive and resilient institutions, and preserving the environment and resources for future generations.
2. Open licensing	Digital solutions must use an approved open license. In particular, for open source software, these are the OSI licenses; for open collections, Creative Commons; for open data, Open Data Commons, etc.
3. Clear ownership	The organisation that owns the digital solution must be clearly identified.
4. Platform independence	Digital solutions should not be "locked in" to a specific vendor or be integral to products whose use is limited to a particular vendor or product.
5. Documentation	Digital solutions should have good technical documentation. That means anyone with the appropriate qualifications who is not familiar with the solution can use it.
6. Mechanism for extracting data	Digital solutions must be built so that the requested information does not allow an individual to be identified when the relevant data is requested.
7. Adherence to privacy and applicable law	Digital solutions must comply with national and international legislation.
8. Adherence to standards and best practices	Digital solutions must comply with specific standards, principles, and best practices.
9. Do not harm by design	Digital solutions must be designed to anticipate, prevent and do no harm.

Source: Digital Public Goods Alliance. Submission Guide // https://www.digitalpublicgoods.net/submission-guide

The Digital Public Goods Standard initiative aims to ensure consensus on the nature of this phenomenon so that society can make the most of the potential of digital technologies. It should be noted that part of the DPG is open data produced by the state.

Open data initiatives have traditionally emerged as a means of interaction among these three parties. For the state, open data is a tool for transparency, accountability and management efficiency. The private sector uses open data as a free resource to create goods and services, optimise operational activities and make business decisions. At the same time, public demand for open data is growing: from the perspectives of public value, government control, and increased well-being. It is essential to emphasise the role of civil society, particularly anti-corruption organisations, journalists, and activists, who actively use open data to identify problems, analyse public policy, and foster a favourable business climate. That helps reduce economic losses from corruption and improve the quality of governance.

Open data is an information resource used for decision-making at various levels, from the state to municipal and private levels. An example is the Lviv Open Data Portal, which, as of December 12, 2025, contains more than 1,475 datasets (normative acts, registers, economic and informa-

tion materials, etc.), ensuring the regularity and transparency of the city's economic activities. Given the strategic importance of open data for the private sector and society, the state plays a key role in their creation, publication and maintenance. Even though data preparation requires human and financial resources, the costs of infrastructure and access mechanisms are significantly lower than the costs of creating primary information systems that generate this data. Therefore, the state's investment in open data is economically justified and contributes to sustainable development.

Overall, the use of open data has a positive effect on society, which manifests in several ways. (Box 1)

Box 1. Open data: results of use (tentative list)

- Transparency and democratic control.
- Participation of stakeholders in making socially essential decisions.
- Self-empowerment (self-motivation) of stakeholders.
- Improved or new private products and services.
- Innovations (production, financial, etc.).
- Improved the efficiency of government services.
- Improved effectiveness of government services.
- Impact measurement of policies.
- New knowledge from combined data sources and patterns in large volumes.

Source: Open Knowledge Foundation. Open Data Handbook. https://opendatahandbook.org/guide/en/why-open-data. The sum of these effects increases the welfare of society (community).

Open data, like every public good, has its own specific features. The following properties are characteristic of open data:

- ➜ Open data is an inexhaustible resource; regardless of how many users access it at the same time, its content does not change or diminish. Unlike physical goods, the consumption of data by one user does not limit its use by others.
- ➜ Open data retains its originality (authenticity of content): information obtained directly from the source remains unchanged in content, regardless of the number of copies and further distribution. Public information may take the form of open data, but this does not affect the original content from which it comes.
- ➜ Dissemination of open data can require additional resources, as many datasets require manual or semi-automatic transformation from public information to open data. However, after initial data preparation, their subsequent hosting and multiple uses require significantly lower costs than the creation and maintenance of the original information systems.

The Organisation for Economic Co-operation and Development (OECD) identifies three main areas of state use of open data to carry out its functions.[3]

- ➜ Anticipatory governance. Ongoing efforts to identify future challenges and problems, predict socio-economic trends and inform relevant decisions made, taking into account the current situation.Розробка політики та її реалізація, надання послуг. На практиці це означає формування політики на основі фактичних даних.

[3] van Ooijen, C., B. Ubaldi and B. Welby (2019), «A data-driven public sector: Enabling the strategic use of data for productive, inclusive and trustworthy governance», OECD Working Papers on Public Governance, No. 33, pp. 17-27. // https://www.oecd.org/en/publications/a-data-driven-public-sector_09ab162c-en.html

- ➔ Design and delivery. In practice, this means formulating policy based on evidence.
- ➔ Performance management. That refers to the effectiveness of public administration.

Table 2. Open data as a resource for the functioning of the state

Anticipatory governance	Design and delivery	Performance management
Predict trends and patterns Mitigate emerging risks Respond to developing crises	Understanding problems Engaging with the public Meeting citizens' needs Evidence-based policy	Public sector productivity More efficient use of resources Evaluation of policies and impact

Source: EU. Creating public sector value through the use of open data Insights and recommendations from the data.europa.eu campaign. Summary paper 2023 // https://data.europa.eu/sites/default/files/report/Creating%20public%20sector%20value%20through%20the%20use%20of%20open%20data_EN_230807.pdf.pdf

The creation and publication of open data requires appropriate material and human resources (Figure 1).

Figure 1. The cost of open data: main components

1. The cost of "creating" and supporting the initiative Costs for data preparation (organisation of information, digitisation of paper documents, etc.), acquisition of necessary equipment and software, etc.	**2. Administration/management costs** Costs for staff preparing and publishing open data, and for developing and implementing protocols/regulations for preparing open data, etc. Administration/Governance
3. Building relevant skills and engaging stakeholders Training for staff involved in preparing open data, communicating with stakeholders, and related activities. Skills Development and Community Engagement	**4. Support cost** Costs for equipment maintenance, software improvements, and ongoing staff training Sustainability Cost

Source: Open Data Institute. How to plan and budget an open data initiative. A guide to support open data leaders in government, and those considering implementing an open data initiative. Sep 22, 2014. // https://theodi.org/insights/guides/how-to-plan-and-budget-an-open-data-initiative.

In 2015, governments, civil society and experts developed six general principles to guide open data policy and practice, known as the International Open Data Charter.

- ➔ Open By Default. The government must make all data public.
- ➔ Timely and Comprehensive.
- ➔ Accessible and Usable.
- ➔ Comparable and Interoperable.

- ➔ Open data as a resource for improved governance and citizen engagement (For Improved Governance & Citizen Engagement).
- ➔ Open data as a resource for inclusive development and innovation.[4]

The above principles are, in fact, the basis for state regulation of the open data sector for states that have joined the Charter.

At the same time, the private sector, which generally possesses broader opportunities, has played an important role in producing information. Therefore, today, the issue of creating an integrated information ecosystem is actively being discussed to ensure data exchange between the private sector and the state (government). Such an exchange will objectively strengthen the state's ability to make adequate political decisions and effectively solve relevant socio-economic problems. And private business will be able to increase the efficiency of production and commercial activities. This trend in Ukraine is still being formed.

In general, cooperation between the private sector and the state and the disclosure of data by private companies will be the next stage in the development of the digital economy. That is why the EU is paying attention to two dimensions of data sharing by companies: information exchange between private companies and between the private sector and the state.[5]

In addition, as practice shows, private companies are increasingly publishing their own data not only for transparency but also for practical benefits. Data disclosure can strengthen market trust, simplify interactions with partners, reduce the cost of information exchange, and stimulate the emergence of new services that develop the company's ecosystem. Companies such as Thomson Reuters, Swisscom, Microsoft, Uber, UK Power Networks, or Walmart are opening their data to shape industry standards, support innovation, and involve external developers in creating solutions that complement their products. Thus, data disclosure by the private sector is becoming an element of competitive strategy and the development of new business models.[6] In general, data opening is seen as a tool for competing for customers, increasing market transparency and predictability, and finding new business solutions. Data sharing is also a powerful way to stimulate scientific progress and solve societal problems. And private companies that produce open data contribute to this process. At the same time, data opening is also seen by private companies as a tool to increase interaction with the market and strengthen competitiveness.[7]

The state will continue to serve as the leading regulator of the open data sector.[8] Yet, the process of data creation and publication should be based on the principle of combined state and private-sector efforts to develop open data sets and common rules for their creation, finance this process, and define mechanisms and instruments for regulating this sector.[9]

[4] Open Data Charter Principles // https://opendatacharter.org/principles/
[5] See for more Regulation (EU) 2023/2854 of the European Parliament and of the Council of 13 December 2023 on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828 (Data Act) // http://data.europa.eu/eli/reg/2023/2854/oj
[6] Hansen J, Pang Y-S (2023) Opening industry data: The private sector's role in addressing societal challenges. Data & Policy, Volume 5 https://doi.org/10.1017/dap.2023.15
[7] Ibid
[8] These issues are described in detail, in particular, CJ Jiang Sabrina Martin.The Geopolitics of Data Governance. Research Report Part I: Data Governance Regimes Oxford Insights, 2020 // https://oxfordinsights.com/wp-content/uploads/2024/08/The-Geopolitics-of-Data-Governance_Oxford_insights_Master.pdf. The principles of legislative regulation of the sphere of open data, in particular, are determined by a special EU Directive: Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information (recast) // http://data.europa.eu/eli/dir/2019/1024/oj
[9] Lisandro Martin, Haishan Fu. Harnessing the private sector for better development data. May 27, 2025 // blogs.worldbank.org/en/voices/harnessing-the-private-sector-for-better-development-data

Research methodology

Purpose, method and subject of the study

The purpose of the study is to determine the structure of Ukraine's open data market, assess its economic parameters and their transformation under war conditions, evaluate its economic and social impact, and identify its main challenges and development prospects.

The study uses the definition of open data as set out in the Law of Ukraine «On Access to Public Information». Thus, by open data we mean public information in a format that allows automated processing by electronic means, free access to it, and its further use. That means that we are talking about information that is received, created or stored by state authorities, local governments, state and municipal enterprises, etc., and which is available in file form, as well as through APIs in machine-readable formats, and which is provided free of charge for further use, including for commercial purposes.

To ensure a common understanding of the research terminology, this definition was quoted to respondents during the collection of primary information. At the same time, it should be noted that some respondents may have identified open data with a broader range of public information. This perception creates a risk of mixing categories in the responses; therefore, the survey results should be interpreted with this methodological limitation in mind, particularly regarding the frequency of individual responses. The authors of the study were aware of the possibility of inaccurate use of terms and therefore accounted for this when analysing the results.

Analysis of the Ukrainian open data market consists of the following elements:

- Analysis of key aspects of market regulation, comparison of the legal frameworks of Ukraine and the EU;
- Determination of the market structure and its main elements;
- Analysis of the original offer side.
- Demand analysis, including an assessment of market size, its dynamics, geography, sectoral structure, as well as factors determining its development; and
- Analysis of the impact of the open data market on society.

The study is based on empirical methods of cognition, in particular, on the collection of primary information through in-depth interviews, focus groups, and questionnaires.

Sources of information

During August—November 2025, representatives of IER and InfoSapiens conducted:

- 15 interviews with companies[10], which provide services based on open data (hereinafter referred to as service companies);
- 11 interviews with experts and open data providers;
- 8 interviews with representatives of the financial sector (6 insurance companies, 2 banks);

[10] In the study, the term «company» is used to mean a legal entity.

- 9 interviews with representatives of other sectors of the economy that use open data (including law firms, corporate security companies[11], etc.);
- 2 focus groups;
- IER New Monthly Enterprise Survey (475 responses);
- Online survey «Assessment of the Open Data Market in Ukraine» (138 responses).

In the case of interviews with representatives of service companies, data providers, and experts, the invitations were drawn from a general pool of relevant respondents, based on recommendations from Texty.org and an analysis of their relevance to the market. Contacts with other consumers took place through the relevant profile associations.

The online survey was posted on open sources (IER social networks), on specialised forums for market participants, and sent to business associations. The IER New Monthly Enterprise Survey is conducted using a panel of enterprises, with industrial enterprises as the basis.

The study also used international and Ukrainian research on the open data market, a database of legislation, and quantitative and qualitative information from open sources.

In particular, the study collected information on services that provide services based on open data. As of the end of December 2025, IER had identified 128 active services that operate on open data. For 89 services, we identified the legal entities that own or manage them. According to IER estimates, the core of the market comprises at least 62 legal entities.

The sources of data on legal entities are YouControl and Clarity Project. The following data was collected: registration number (USREO code), organisational and legal form (LLC, PE, NGO, JSC, etc.), date of state registration, date of termination/closure (if relevant), legal address (only oblast/region), and contact details of the legal entity.

To determine the sector formation trends, information on the date of domain registration was also collected. This information was based on ICANN Lookup, WHOIS Lookup and What's My DNS Domain Age Checker.

Financial indicators from the following statistical forms were used to analyse the market core.

- Full financial reporting (for medium and large enterprises):
  - Form No. 1 — Balance (Statement of financial position). Fields (items): non-current assets, current assets;
  - Form No. 2 — Statement on financial results (Statement of comprehensive income). Fields (items): income (revenue), cost, financial result (profit/loss);
  - Form No. 5 — Notes to the annual financial statements, containing the section on the number of personnel.
- For small businesses:
  - Form No. 1 — Balance;
  - Form No. 2 — Statement on financial results.
- For micro-enterprises:
  - Form No. 1-ms — Balance;
  - Form No. 2-ms — Statement on financial results.

[11] Corporate security services cover a wide range of issues aimed at identifying and eliminating external and internal risks related to the activities of companies. This may include financial investigations, protection against raiders, data protection, personnel verification, etc.

Approach to determining market size

The study paid particular attention to determining the potential market size. Since open data is, by definition, distributed free of charge, the market value of open data, and therefore the size of the market, can only be estimated based on consumer analysis.

For the purposes of determining the size of the open data market, consumers can be conditionally divided into two categories: those who use open data to create and promote services based on it (the core market), and the rest. The assessment of the size of the open data market was carried out separately for the core market and the market as a whole.

The core market analysis consisted of the following steps:

- formation of a list of open data services that operate or have operated in Ukraine, based on information from the Diia.OpenData portal, Internet searches, and interviews with stakeholders;
- identification of the legal or natural person that provides the service;
- finding, based on information about the name, the corresponding registration number (USREO code) for legal entities and, if available, the TIN for individual entrepreneurs;
- formation of a database with information about the registration date, address, financial indicators, number of employees, etc., based on the found codes;
- analysis of the market core based on available information.

The core market size is defined as the revenue of market participants. This estimate should be used with some caution because:

- Some services may not be included in the list.
- Not all legal entities that maintain these services provided the financial information necessary for analysis.
- Legal entities that provide services also have other sources of income.

At the same time, this assessment allows us to understand the relative role of the market core in the economy, as well as to trace trends of the market core development and its main characteristics.

To estimate the total market size, the value of open data is indirectly measured by the cost of obtaining the necessary information, as if the currently available open data were unavailable. That is the “price” of requesting access to public data or receiving information in other ways.

This price is calculated by multiplying two components:

- The time required to receive a response to the request, provided that open data is not available (in hours). This information was obtained during the interview.
- The cost of an hour of work in the economy is calculated using (i) the average wage adjusted for the unified social security contribution to obtain the average wage fund per employee, and (ii) the average number of hours worked during the month. This information is based on data from the State Statistics Service.[12]

To obtain the total market size, the “price” of the query is multiplied by the total number of queries received by government portals and key open data services over a specified period, for example, a year. The sources of information in this case are surveys and portal data (as provided in the “Number of Users” Section).

[12] https://www.ukrstat.gov.ua/operativ/menu/menu_u/zp.htm

As with the core market estimate, the resulting estimate should be treated with caution as to its accuracy. For example, the time required to process a single request varies with the complexity of the requested information. The cost of an hour of work varies by skill and sector. Information on the number of requests processed annually may be incomplete. Nevertheless, the proposed estimate provides insight into the value of open data to the economy, without focusing solely on the core (open data services).

An alternative source for estimating market size is interviews with market participants.

Distinguishing between the use of open and other public data

During interviews with companies, experts, and open data providers, a vital challenge was identified: the lack of a clear distinction between open data and other state or commercial sources. In practice, most services combine open sets (for example, Prozorro data, State Statistics Service, open registers of parliament) with information, access to which is regulated by separate procedures — paid APIs, contracts or special agreements (in particular, USR data, scored indicators or commercial aggregation systems). That leads to confusion about different access regimes and creates a risk of misidentification: not all data used in projects are open data under the law, even if they are available online.

During interviews with representatives of the banking, insurance and security sectors, it was confirmed that a hybrid model of data use has emerged in Ukraine: IT projects simultaneously process open data sets (sanctions lists, Unified State Register of Court Decisions, NBU data, Prozorro) and data with limited or regulated access, provided through paid APIs or special contracts (USR, SRPR, individual sets of SLC). As a result, only part of the information meets the legal criteria for open data. At the same time, other sources are available but subject to restrictions on access methods and terms of use.

Representatives of the banking sector noted that although some state registers and datasets are de jure subject to publication as open data, in practice they are often provided through paid or authorised access channels, which limits their widespread use. For example, USR data or individual tax reporting indicators can be obtained through integration with commercial providers (such as YouControl or Opendatabot) or through agreements with registry administrators (such as NAIS). The absence of these sets in open data format complicates the automation of scoring, compliance and risk verification, forcing companies to build complex technical chains for customer verification.

A similar situation is observed in insurance companies: state data is actively used, but a significant part of it is “semi-open”, that is, formally made public but accessible only through authorised channels or commercial providers. For example, vehicle data is published on the Open Data Portal. Still, information about owners is available only with authorisation or through aggregators, which themselves receive this data from state registers. According to respondents, some important sets are formally considered open. Still, their actual use is complicated by paid access, unstable API operations, the lack of machine-readable formats, or the need to process extracts and reports manually. Because of that, insurance companies, like banks, have to build complex technical integration systems and maintain their own data processing infrastructure.

In the area of corporate security, the situation is even more complicated. According to respondents, justice and legal services that monitor court cases or corporate changes are forced to combine open data with information from private providers or partner organisations under commercial contracts or information-sharing agreements. Such information is not open to a wide range of users, but is used for operational risk analysis, in particular to prevent raider seizures and fraudulent changes to registers. Respondents emphasised that, after 2022, restricting access to some state registers has only increased business reliance on private data providers.

Industry examples

- **Construction and real estate.** Respondents emphasised the critical dependence on state registers — primarily the State Land Cadastre and the State Register of Property Rights. Despite the emergence of high-quality USESCS sets, a significant portion of the information remains in formats unsuitable for analysis or requires complex access procedures (archives, extracts, paid or authorised channels).
- **Financial sector.** Banks and insurance companies combine open data (sanctions lists, Prozorro data) with commercial sources. Access to tax reports or information about business owners is often available only through the Unified State Register's paid API, and business tax indicators are available only through specialised integrations with commercial services. That increases the cost of automation, slows down customer onboarding, and creates barriers for small businesses.
- **Medicine.** Data from the Ministry of Health and the National Health Service are primarily presented in interactive dashboards. But very often this data is not enough for further processing or creating new services that could help people with various diseases. Also, when requesting data, authorised bodies frequently refuse to provide it because it is not depersonalised, which significantly limits the creation of new services.
- **Anti-corruption initiatives.** Anti-corruption and public organisations working with declarations of officials, political finance, and monitoring of public expenditures note the need to combine open data sets (e.g., Prozorro, E-Data, the Unified State Register of Declarations) with information obtained through access to public information requests or under special partnership agreements.

Interview and focus group respondents noted that although Ukrainian legislation and international standards clearly define the requirements for open data (free of charge, unrestricted reuse, machine-readability, accessibility), in practice, these principles are implemented unevenly. Some registers formally maintain an open status. However, the actual access conditions, in particular obtaining data only through contractual or paid channels, technical limitations of APIs, irregular updates or the need to upload files manually, do not ensure full compliance with the defined openness criteria.

In such circumstances, it is essential to distinguish between formal and actual data openness. The presence of paid or authorised access does not, in itself, contradict the principles of open data if a full open dataset is available in machine-readable format. At the same time, where the set is absent, and access is provided exclusively through paid or limited technical channels, the possibility of unrestricted reuse is limited. That creates differences in market participants' ability to work with data: larger companies have the resources to integrate. In contrast, smaller ones are forced to rely on fragmented information, which affects competitive conditions and transparency in the environment.

The key problem is that the practices of using open data and related public information remain heterogeneous. Within this environment, individual information resources have different access modes, update frequencies and technical implementation formats. This situation creates a practice in which some information is available for unrestricted use, while other data requires additional authorisation, contains paid elements, or is updated with a delay. The assessment process recognised that open data and public information are closely intertwined in practice, and that users often have to combine several sources and verify the completeness and relevance of the information. That affects the convenience of working with data and complicates the development of stable, predictable approaches to its use. Further development of the relevant area involves gradually aligning access modes, improving the quality and regularity of information updates, and contributing to greater data consistency and reduced dependence on fragmented solutions.

Market regulation

Legislative overview

The sphere of open data in Ukraine began to be regulated in 2014-2015. However, the first mentions in official documents were still in 2012. In particular, paragraph 10 of Section III of the Action Plan for the Implementation of the Open Government Partnership Initiative in Ukraine states the Government's commitment to: ''Conducting a public discussion on the introduction of a mechanism for free, simplified and free access, including using the Internet, to information contained in state registers, in particular the register of rights to real estate, the register of legal entities and individual entrepreneurs, the land cadaster, and the register of persons who have committed corruption offenses". That can be considered the first step towards implementing the open data sphere in Ukraine. The Action Plan for the Implementation of the Open Government Partnership Initiative in Ukraine was developed in consultation with civil society institutions and activists, as explicitly stated in its text. That was accompanied by numerous informal discussions and initiatives by public activists promoting the adoption of open data in Ukraine.

The direct implementation of norms in the field of open data began in 2015 with amendments to the Law of Ukraine «On access to public information» regarding access to public information in the form of open data, establishing a fundamental pillar of the field in Ukraine. These changes introduced the concept of public information in the form of open data. They established the obligation of information providers to publish data in a machine-readable format open for automated processing, to regularly update them on the single state web portal for open data and on their websites, and to provide them upon request.

The next step was the approval by the Cabinet of Ministers of Ukraine of Resolution No. 835 of October 21, 2015, Regulations on datasets to be made public as open data. This step marked the transition from declaratory intentions to the implementation of Ukraine's open data policy. Resolution No. 835, in particular, defined a list of mandatory open data sets for state and local government bodies and state enterprises, the requirements for their format, and rules for publication on the Unified State Open Data Web Portal (data.gov.ua). That covers a wide range of information, from budgets and procurement to environmental, transport, education, healthcare, and land-use data.

Providers are obliged to publish, free of charge, all datasets that are not restricted by law, and, in particular, the datasets defined by Resolution No. 835 on the Unified State Open Data Web Portal in machine-readable format, and to update these datasets regularly. According to the Resolution, all providers are obliged to publish 16 datasets, in accordance with their competence, namely: information on the providers organisational structure, reports on the satisfaction of requests for information, registers of data sets for which the manager is responsible, and others. Also, for each manager mentioned in the Resolution, there is an individual list of open data sets that they are obliged to publish.

As the open data sector in Ukraine evolved, Resolution No. 835 has been repeatedly amended and continues to be amended.

In addition to the already mentioned main legal acts, the open data sphere is to a certain degree regulated by other regulatory and legal documents (see Appendix 6).

The regulatory framework concerning the open data also includes legislative acts on registers, in particular in terms of ensuring access to registers in the form of open data (for example, Resolutions of the Cabinet of Ministers of Ukraine dated June 28, 2024 No. 754 "Some Issues of Maintaining the Unified Tourist Register" and dated June 9, 2023 No. 706 "On Approval of the Procedure for Maintaining the State Register of Artesian Wells", etc.); orders of the Ministry of Digital Transformation of Ukraine as the body responsible for the development of the sphere of open data, as well as orders that regulate the procedure for working and publishing open data directly by their providers.

In October 2016, Ukraine officially joined the International Open Data Charter, committing to implement a national open data policy in accordance with the charter's principles. Subsequently, almost 90 cities of Ukraine joined the charter.

February 18, 2025, by order of the Cabinet of Ministers of Ukraine No. 131, the Government's Priority Action Plan for 2025 was approved, which, among other things, provided for:

- ➔ development and submission to the Cabinet of Ministers of Ukraine of a draft act on increasing the quantity and quality of datasets published by information providers ;
- ➔ other related activities.

Activities aimed at improving legislation in the field of open data continue.

Compliance of legislation with EU norms

At the beginning of its development, open data was part of e-government. Gradually implementing open data policies, states sought to increase transparency and create conditions for the economic use of public data. As a separate sphere, open data was separated with the signing of the Memorandum on Transparency and Open Government by US President B. Obama on January 21, 2009 («Transparency and Open Government»). It became the basis of open government policy in the United States, defining three principles of executive branch work: transparency, citizen participation, and collaboration.

In the EU, basic rules on access to and re-use of public data were introduced in 2003 with the Directive 2003/98/EC «On the secondary use of public sector information» (PSI Directive). Yet, in 2013, changes were made with the implementation of Directive 2013/37/EU.

Currently in force is Directive (EU) 2019/1024 on open data and the re-use of public sector information (Open Data Directive), which replaced two previous directives and became the basis for the functioning of the open data sector in the EU. The EU member states had to implement the new directive into their national legislation by 16 July 2021. Its current version introduces the concept of high-value datasets, requires data to be published in machine-readable format, establishes accessibility rules, etc.

EU Regulation 2022/868 (The Data Governance Act, DGA) aims to ensure secure data sharing between the public and private sectors, create a data broker role, and promote data reuse.

In February 2020, the European data strategy was approved. It aimed to create a single data market and to ensure EU competitiveness and data sovereignty. It proposed a common European data space and an internal data market, in which data can be used regardless of where they are physically stored within the EU. The act was designed to influence the development of technology, particularly artificial intelligence, positively.

Commission Implementing Regulation (EU) 2023/138, which established a list of specific categories and high-value datasets, along with the procedure for their publication and reuse, has become crucial to the development of the open data sector in the EU.

Entered into force in January 2024, EU Regulation 2023/2854 on harmonised rules for fair access and use of data, which marked a key milestone in Europe's digital transformation. As part of the broader European Data Strategy, the act aims to democratise access to data, stimulate innovation, and create a fairer digital economy across Europe. The EU member states are now working to comply with the requirements and integrate their provisions into their systems.

Regulation of the area of open data in the EU is closely linked to the protection of personal data. That is implemented in several EU acts (including those listed in Appendix 7 to this Report), the main ones being EU Regulation 2016/679 (GDPR), which introduces the concept of personal data, the principles of their processing and anonymisation, the rights of data subjects, and the obligations of controllers and processors.

In the EU, protecting personal data when publishing open data is of great importance. However, this is addressed differently in different member states.

The comparison of Ukrainian legislation in the field of open data with European standards has been analysed in several analytical works, in particular:

- Analytical report «Compliance of Ukrainian legislation with certain provisions of the legal regulation of open data in the European Union», prepared by the public organization «Training and Consulting Center for Access to Information» within the framework of the USAID/UK aid project «Transparency and Accountability in Public Administration and Services/TAPAS», implemented by the Eurasia Foundation, and with the assistance of the Ministry of Digital Transformation of Ukraine and the support of the Eastern Europe Foundation;
- Analytical report on the study of best practices and EU legislation on the standardization of high-value datasets, prepared by the public organization «Training and Consulting Center for Access to Information» within the framework of the USAID/UK aid project «Transparency and Accountability in Public Administration and Services/TAPAS», implemented by the Eurasia Foundation, and with the assistance of the Ministry of Digital Transformation of Ukraine and the support of the Eastern Europe Foundation.

Ukrainian legislation in the field of open data is generally in line with Directive (EU) 2019/1024 and Implementing Regulation (EU) 2023/138. However, it requires specific changes, including clarifying certain provisions and improving high-value datasets.

The process of Ukraine's European integration encourages the harmonisation of national legislation with EU norms, including in the field of open data. Adaptation to EU requirements, in particular the General Data Protection Regulation (GDPR), requires Ukraine to ensure a high level of personal data protection and to develop new regulatory acts. The possibility of commencing implementation processes in other areas of law, in particular in the field of processing non-personal data, depends directly on the implementation of its provisions into national legislation.

In total, Ukraine must implement seven EU acts in the field of data, including EU Regulation 2024/903, which ensures a high level of interoperability.

This concerns: Regulation (EU) 2018/1807 on the framework for the free flow of non-personal data in the European Union; Directive (EU) 2019/1024 on open data and the reuse of public sector information; Regulation (EU) 2022/868 on European data governance and amending Regulation (EU) 2018/1724 (Data Governance Act); Regulation (EU) 2023/2854 on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828 (Data Act); Guidelines on the Regulation on the framework for the free flow of non-personal data in the European Union COM/2019/250; Commission Implementing Regulation (EU) 2023/138, which establishes a list of specific high-value datasets and the procedure for their publication and reuse; European data strategy from 19.02.2020.

Ukraine's current legislation does not provide for complete and effective protection of personal data in accordance with modern international standards. That necessitates updating the national legal regulation in this area. Consequently, in 2022, the relevant Draft Law «On Personal Data Protection» (Registration No. 8153 of October 25, 2022) was registered. The draft has now been adopted as a basis and is being prepared for the second reading. It envisages the implementation of Regulation (EU) 2016/679 (GDPR), Directive (EU) 2016/680 on the processing of data in criminal proceedings and Directive 2002/58/EC on privacy and electronic communications.

In addition, the government continues to work on developing draft laws and amending existing government regulations in the field of open data to supplement and update them, including in accordance with European standards. This process is ongoing.

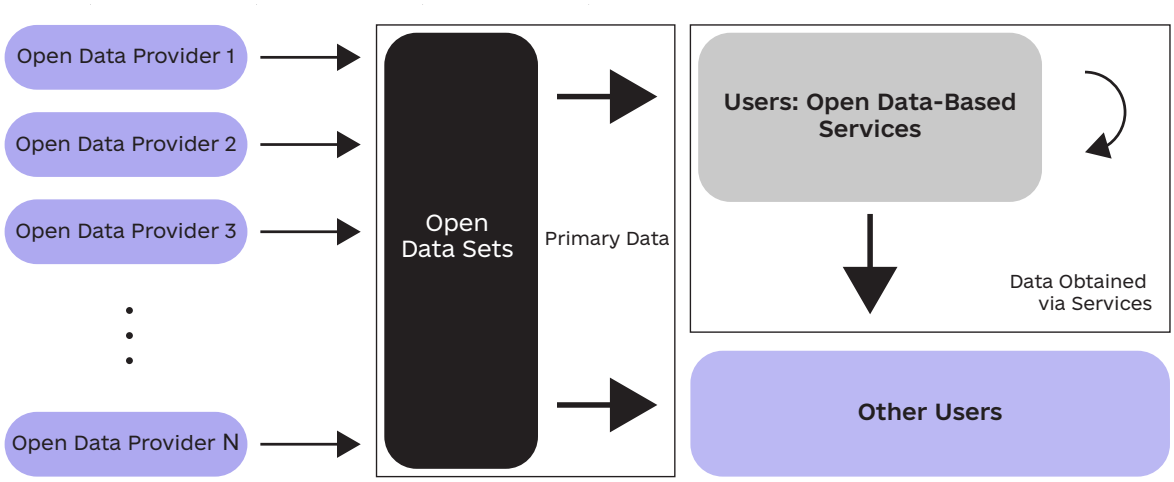
Market structure

The open data market is based on the interaction of three main groups:

- ➔ Open data providers (central and local government bodies, state-owned enterprises, etc.);
- ➔ Developers and services based on open data — companies and projects that create digital products and analytics;
- ➔ Users (businesses and citizens who use either open data or services based on open data).

The market structure is schematically presented in Diagram 1.

Diagram 1: Open data market structure



Source: Authors' own representation

There are also other participants in the market, such as the Ministry of Digital Transformation, which is responsible for the formation and implementation of public policy in the field of open data, international technical assistance projects, etc.

Below, we will look at each group in more detail.

Providers of public information in the form of open data

Providers of public information in the form of open data are defined by Article 13 of the Law of Ukraine "On Access to Public Information"[13]. These include, in particular, subjects of government authority (state authorities, other state bodies, local self-government bodies, etc.), as well as legal entities financed from state or local budgets, persons with delegated powers, natural monopolies, legal entities of public law, state/municipal enterprises and business associations with a predominant state or municipal share of ownership, private companies (regarding information of public interest). According to the Law of Ukraine "On Access to Public Information," public information is open, except as provided by law. According to Resolution No. 835, open data providers must adhere to the principle of openness by default, ensuring the publication of all public information in open data form that is in their possession, except for information classified by law as limited-access. Information providers are also obliged to pro-

[13] Law of Ukraine «On Access to Public Information». URL: https://zakon.rada.gov.ua/laws/show/2939-17#Text

vide public information in the form of open data upon request, publish and regularly update it on the Unified State Open Data Web Portal and on their websites.

The Unified State Open Data Web Portal (data.gov.ua), administered by the State Enterprise "Diia" (owned by the Ministry of Digital Transformation), has become the main access point to public information in the form of open data. Other open data portals also operate: sectoral (such as Prozorro, Spending, and Open Data Portal of the Verkhovna Rada of Ukraine) and local and regional (such as the Lutsk City Council open data portal, and the Lviv region).

As of December 2025, under Resolution No. 835, 95 central providers are required to publish 927 datasets. (List in Appendix 8).

Manager type	Number of providers	The number of datasets
Economic policy, finance and state property	17	344
Environment, natural resources	9	81
Social policy	7	76
Law enforcement, security agencies, justice	13	74
Culture	4	61
State-owned companies	11	58
Judicial system	7	55
Transport, post and infrastructure	5	40
Education, science, intellectual property and innovation	6	38
Energy	3	31
Digital transformation, data and connectivity	5	29
Parliament and parliamentary control	2	11
Election	1	11
Defence, security, foreign policy	2	4
Other	3	14
Total	95	927

Also, some datasets must be published by the Council of Ministers of the Autonomous Republic of Crimea, local public providers (24 regional and 136 municipal districts), and 1469 local government bodies, some of which are now occupied by Russia.

Manager type	Number of providers	The number of datasets that each manager must release
Council of Ministers of the Autonomous Republic of Crimea	1	1
Regional state administrations	24	8
District state administrations	136	8
Local government bodies	1469	58

Users: services based on open data

The above-mentioned providers generate a large amount of public information, in particular in the form of open data. A wide range of digital services operate on this basis. Still, in practice, they usually combine open data with other types of public information, such as government websites, registers published in formats other than open data, responses to requests, and data from commercial or proprietary sources. For example, a service may take a company database from the USR open data and court case data from the court register's web interface.

A separate group consists of business-oriented services that provide tools for checking counterparties, risk assessment, compliance and financial monitoring. They use, among other things, open data sets from the USR, public procurement, sanction lists, and public data from the court register, though not always formally "open". For example, services such as Opendatabot or YouControl form a company dossier: they show its registration data, history of changes in ownership, participation in tenders, litigation, and mentions in sanction lists. The end user receives a consolidated profile of a legal entity or individual with risk indicators, thereby reducing transaction costs for businesses, lowering the likelihood of fraud, and increasing transparency in market relations. We focus on this group of users because it is one of the largest and most active in the entire open data ecosystem. These services create real demand for data, constantly combine it, check its quality, and from time to time stimulate providers to reveal more.

A significant segment comprises public and anti-corruption initiatives that build analytical panels and monitoring platforms. They systematically use open data on procurement (Prozorro), on the use of public funds (E-data), officials' declarations, and information on state-owned enterprises, but often supplement these with unstructured public information, such as decisions of local councils, explanatory notes, and local registers without machine-readable formats. For example, platforms such as DOZORRO and Clarity Project analyse tenders and participant responses, identifying suspicious procurements, and public monitoring initiatives compare payments from E-data with the actual condition of facilities on the ground.

Other users

Other users rarely work with open data directly. Most often, they interact with services that have already integrated and "packaged" data into a convenient interface. For most users, the CSV data format is not convenient; they prefer visualised data. The demand for open data in Ukraine is diverse and comes from several key groups, each with its own needs.

Business sector. Businesses are one of the largest and most active consumer groups. They use open data to solve several critical tasks: competitive intelligence, market analysis, counterparty verification, and investment decision-making. Services that provide access to aggregated information from open data and other public information (as well as their own analytics) have become an integral part of everyday business practice for many Ukrainian companies.

Civil society. Open data has significantly expanded civil society's capacity to monitor government, combat corruption, and analyse public policy. Anti-corruption organisations use data from registers and government systems to monitor public finances and detect abuses. The most famous example of a digital solution that has changed the public procurement landscape is the Prozorro system (an open database of all public procurements since 2016). Based on Prozorro data, the public organisation Transparency International Ukraine developed the BI Prozorro analytical module. This free business analytics tool lets you identify suspicious tenders, assess procurement effectiveness by specific institutions, search for supplier information, and more.

In addition to procurement, the public sector actively uses open data in the field of elections (after 2015, the CEC, at the request of Resolution No. 835, must publish election-related information in open data format). In the 2020 local elections, information about candidates and elected deputies in the form of open data appeared on the CEC website, which Movement CHESTO used), budgets (project on control of local budgets and expenditures through open treasury data and the spending.gov.ua portal), environment (analysis of data from SavEcoBot about the quality of air, water, forests that become available from Ukrainian Hydrometeorological Center, State water agencies, State Forestry Agency) etc. Thus, for public organisations, open data is a powerful tool for monitoring and controlling government, creating socially important products for citizens, promoting reforms, and involving citizens in decision-making.

Journalists and media. The media sector, primarily investigative and analytical journalism, was among the first to use open state registers and databases. In Ukraine, a trend of "data journalism" has emerged — editorial offices and independent journalists use open data to prepare materials, infographics and investigations. One example is the Agency for Data Journalism (Texty.org.ua), which created dozens of materials using open data sets as early as the development of open data in Ukraine (for example, maps of possible falsifications in elections based on protocols, analysis of court decisions regarding road accidents, school rankings based on open data etc.) and in the years of full-scale invasion (for example, analysis of the functioning of higher education). Investigative journalists (projects Bihus.Info, «Schemes" / "Skemy: Corruption Investigation», «Nashi Groshi», etc.) widely use data from the USR, the USRCD, and the Unified State Register of Court Decisions to track officials' connections and property. The Unified State Register of Declarations of Persons Authorised to Perform State or Local Self-Government Functions, the NACP, is also a source of loud revelations.

State consumers are also an important category. Public servants in ministries, agencies, and local councils use both their own internal systems and open data from other providers . For example, a local government body can obtain data from state registers of enterprises, land, real estate, or sanction lists through the Open Data Portal or an external service to make decisions on investment projects, land auctions, and potential partners for cooperation.

The general public. Millions of citizens, although they do not work directly with raw data, are end users of services built on open data. The average citizen rarely visits data.gov.ua, but can use city and industry portals, where the same open data is presented in convenient services and visualisations, including information on road repairs, shelters, kindergarten queues, community budget indicators, and searches for doctors or medicines. In such cases, the difference lies not in the data but in the access format and presentation method, both of which are adapted to the needs of a specific target audience. In this category, the key roles are played by the interface's simplicity and clear explanations, not the data format itself. That is why the development of services based on open data is critical so that the potential of openness is felt not only by a narrow expert community.

Ministry of Digital Transformation

The Ministry of Digital Transformation of Ukraine is responsible for the formation and coordination of open data policy at the national level, in particular for the preparation of relevant legislation, and is also responsible for the adaptation of Ukrainian legislation to the EU norms in the field of digital transformation, forms rules for the publication of open data and provides appropriate conditions for this, and promotes international cooperation in the development of open data.

A vital function of the Ministry is methodological support: developing standards, consulting with data providers, conducting exercises, and creating educational series on Diia.Education. Also, the Ministry, within the framework of the USAID/UK aid project «Transparency and Accountability in Public Administration and Services/TAPAS», created the national competence centre «Diia.Open Data» — an online platform with information materials.

The Ministry of Digital Transformation ensures the creation, implementation, maintenance and proper functioning of the Unified State Open Data Web Portal (data.gov.ua). The administrator of the portal, which provides its updating and accessibility, moderates data, and coordinates administrators, is the State Enterprise "Diia", which falls under the jurisdiction of the Ministry of Digital Transformation.

International technical assistance projects

The international community has strongly supported the development of open data in Ukraine. Technical assistance projects have been operating since 2013 within the framework of the USAID/UK aid project "Transparency and Accountability in Public Administration and Services/TAPAS», managed by the Eurasia Foundation. This project supported the modernisation of the Open Data Portal, the development of a competence centre Diia: Open data; provided expert assistance in the development of laws, regulations and open data standards; and conducted 23 studies, ranging from economic impact assessments to sectoral analysis of the role of open data in key areas. Also, within the framework of TAPAS, seven grant competitions were held, which supported the use of open data for transparency, anti-corruption solutions and innovation. More than 30 projects for over USD 690 thousand received support over eight years.

In 2024-2025, the development of the open data sector was supported by the Digital Transformation Activity project, funded by the US government through the United States Agency for International Development (USAID) and the UK Government's Development Assistance Programme (UK Dev). The project facilitated information audits for data providers, enhanced their competence through an educational initiative, the Open Data Academy, and enabled the release of new datasets. It supported the selection of the first Open Data Ambassadors in Ukraine. The Digital Transformation Activity project was planned as a five-year program, but was terminated early in March 2025 after receiving a Stop-Work Order from USAID. That was the result of a 90-day audit and temporary suspension of funding for all foreign assistance programs, as decided by the US Department of State.

The OSCE provides another support dimension, including through its project "Promoting Good Governance and a Positive Business Climate in the OSCE Region through Digitalization and the Use of Open Data". Since 2023, the OSCE and the Ministry of Digital Transformation of Ukraine, with the support of SocialBoost, have been implementing the Open Data Unbroken Program, which is managed by the OSCE Office of the Co-ordinator of Economic and Environmental Activities. The program provided small grants and mentoring support to teams creating digital services based on open data to address the challenges of war: from finding the nearest shelter and work for internally displaced persons to tools for monitoring infrastructure damage and supporting citizens in crises.

In 2025, the OSCE, the Ministry of Digital Transformation, and SocialBoost launched the second edition of the accelerator Open Data Unbroken 2.0 — a 10-week program, focusing on empowering startups that use open data, including AI-enabled solutions, to address war-related challenges, support economic recovery, and promote transparency. The program provides support to selected teams through a combination of financial assistance, tailored mentorship, and visibility opportunities. Each team received an initial grant of approximately UAH 500,000 (or 10,000 EUR), with the opportunity to receive an additional UAH 150,000 (or 3,000 EUR) for the winning project following the final Open Data Keynotes event.

In addition to acceleration programs, the OSCE, together with the Ministry of Digital Transformation, systematically invests in developing competencies in open data. In particular, in 2024 and 2025, the organisation supported specialised training for public organisations and the private sector on promoting transparency through open data. In the autumn of 2025, the organisation of exercises within the framework of the Open Data Roadshow in Lviv and Kyiv focused on developing students' open data skills and tailored events such as the training for business and the financial sector.

Overview of key open data sets

The formation of the open data system in Ukraine as a separate direction of public policy began in 2015, following the launch of the Unified State Open Data Web Portal (data.gov.ua) and the adoption of Resolution No. 835 of the Cabinet of Ministers of Ukraine. Since then, the portal has become the primary platform for publishing open data sets by state authorities and local governments. As of December 2025, almost 40,000 data sets from various providers have been published on the portal.

At the same time, the practical value of open data for businesses, journalists, researchers, NGOs and government bodies is concentrated around a limited number of so-called “core” sets. These are large-scale, nationwide datasets that are regularly updated, machine-readable, and integrated into analytical tools and services. Such sets enable verifying counterparties, monitoring legal proceedings, analysing the financial capacity of business entities, controlling the use of public funds, and assessing the state of the environment, education, and healthcare systems.

The full-scale Russian invasion has significantly affected access to some of this data: some sets have been closed or placed in restricted access mode for security reasons (and some have lost their status as open data sets), while others have maintained, restored openness, or even created new products (DREAM, State Sanctions Register).

Unified State Register of Legal Entities, Individual Entrepreneurs and Public Organizations (USR)

The Unified State Register is a single state information system that ensures the collection, storage, processing, protection, accounting, and provision of information on legal entities, individual entrepreneurs, and public organisations registered in Ukraine. The register contains basic registration information, including the company name, Unified State Register of Enterprises and Organisations of Ukraine, address, form of ownership, providers, types of activities, legal entity status, etc.

Until February 24, 2022, the USR was published on data.gov.ua in a machine-readable format as open data. The availability of this register as open data from 2018-2021 spurred the emergence of several services that used USR data for business analytics and public oversight.

With the onset of the full-scale invasion, the open data portal was closed, and access to most state registers was restricted. Access was restored gradually. Public access to the USR web portal was restored on December 27, 2022, but with a significant change: users must now provide electronic user identification to view the information. However, the publication of the complete USR as open data on the data.gov.ua portal has not yet been restored.

Currently, access to machine-readable data via API can be obtained through an agreement with the State Enterprise NAIS, on a paid basis. It is also possible to get paid access to information based on USR data through commercial services that aggregate data and offer additional analytical tools, such as Youcontrol or Clarity Project. That effectively limits the market’s possibilities and contradicts the key principle of open data: free and equal access to information created and maintained by the state at taxpayers’ expense. As a result, competition is reduced, the development of new services and innovations is inhibited, and the overall social and economic value of open data is reduced.

Unified State Register of Court Decisions and Judicial Data

The Unified Register of Court Decisions (USRCD) is an automated system that stores electronic copies of court decisions of all instances throughout the country. The register contains anonymised texts of court decisions (civil, criminal, and administrative), rulings, and resolutions, published with open access for any user. It is vital for both businesses and individuals to be able to monitor the emergence of new cases (or the progress of existing ones) involving them or their legal entities.

In accordance with Resolution No. 835, this register is published as open data and can be downloaded from data.gov.ua. The Portal provides data from the USRCD since 2006, which is updated daily. For each year, a ZIP archive with all decisions and resolutions is published as a separate data set.

The API for the USRCD is not provided directly through government services. Access to registry data can be obtained free of charge through the Open Data Portal or for a fee through aggregators such as Opendatabot and «Court on the Palm» (the latter stopped updating due to a temporary data blackout after the start of a full-scale invasion).

A separate set related to the USRCD is the "List of Cases Assigned for Consideration," which the State Judicial Administration publishes as open data. That set records all cases scheduled for consideration in courts on specific dates: date and time of the court session, name of the court, case number, form of proceedings (civil, criminal, administrative, economic), full name of the judge, sometimes the number of the courtroom, as well as a brief description of the case category. That allows not only citizens and lawyers to check when a specific case is scheduled for consideration quickly, but also to build analytics on court workload, compliance with procedural deadlines, and the dynamics of consideration across various categories of disputes.

Tax data

Before the full-scale invasion, the State Tax Service (STS) began publishing open data, information on the tax debt of legal entities and individual entrepreneurs, as well as several other essential registers, in particular registers of VAT payers and single tax payers. This data allowed checking the tax debt of any business entity and assessing its financial reliability.

Since February 2022, the State Tax Service has stopped publishing this information as open data. The STS justified its decision as the result of an internal «three-component test» for information openness, which drew criticism from the expert community for the lack of public consultation and insufficient transparency in the decision-making process.

Although individuals and legal entities can check their own settlement status with the budget through the Electronic Taxpayer's Office, the open data that allows checking the tax debt of any business entity is no longer updated and is unavailable. At the same time, entrepreneurs can check their tax debt at the same Electronic Taxpayer's Office, but this is a piecemeal verification service rather than an open array for automated data collection. The lack of open data on tax debt and VAT payer registers complicates verifying counterparties' reliability, increases business risks, and creates favourable conditions for unfair competition.

Financial reporting of enterprises

Financial reporting of enterprises (balance sheet, financial results report, cash flow statement, equity statement, etc.) is public information and, under Resolution No. 835, is defined as mandatory for publication as open data. Ukrainian enterprises that are respondents to state statistical observations are obliged to submit financial reporting to state statistics bodies in accordance with the legislation. On the data.gov.ua portal, the State Statistics Service began publishing microdata on both quarterly and annual financial statements, in the form of cumulative archives for the relevant years.

During martial law, the Law of Ukraine «On the protection of the interests of subjects of reporting and other documents during the period of martial law or a state of war» temporarily allowed entities not to submit reports and other documents within the established deadlines without applying fines, provided that they are submitted after the end of martial law. However, from July 5, 2025, submission of statistical and financial reporting to state statistics bodies has again become mandatory for all enterprises. This change is due to the entry into force of the Law of Ukraine «On amendments to the Tax Code of Ukraine and other laws of Ukraine regarding expanding patients' access to medicines...». Thus, as of July 5, 2025, the obligation to submit statistical and financial reporting is again fully applicable, despite martial law. For reporting not submitted in 2022–2025, a transitional period was established: entities had the right to submit the missed statistical and financial reporting until October 5, 2025, inclusive.

At the same time, the State Tax Service, which is required to publish a data set with financial statements (Financial statements (statement of financial position (balance sheet) and statement of profit and loss and other comprehensive income (statement of financial results), submitted as an appendix to the reporting (reporting new) tax statements for the annual tax (reporting) period in accordance with Paragraph 46.2 of Article 46 of the Tax Code of Ukraine), does not update information on the portal from 2021.

Public procurement data (Prozorro)

The Prozorro system remains a benchmark for transparency and resilience even in the face of full-scale war. Data on all stages of public procurement is fully accessible as open data through the system's open API and the official portal. The principle of openness is clearly enshrined on the system's website, allowing any person to freely use, copy and distribute the data, including for commercial purposes.

State Land Cadastre and National Geospatial Data Infrastructure

The situation with open data of the State Land Cadastre (SLC) is heterogeneous. SLC publishes several datasets on the data.gov.ua portal. These sets are updated irregularly: some resources have fresh versions, while others have been marked «not updated» for a long time. It is also worth noting that not all of these data sets are machine-readable and structured, which limits and complicates their automated processing.

With the onset of the full-scale invasion, access to the SLC data online was significantly restricted. In accordance with Resolution No. 564 of the Cabinet of Ministers of Ukraine dated May 7, 2022, for the period of martial law and a month after its abolition, the Public Cadastral Map was discontinued as an open tool for accessing SLC data. Currently, there are only third-party mirrors with a snapshot of the status as of March 2022.

The SLC justifies restricting access to basic data based on the results of the «three-component test," citing risks to national security. The aim is to make it difficult for the enemy to use detailed spatial information to locate military production on Ukrainian territory. Information on owners and users of land plots is no longer published in the public domain (this information was not previously in the form of open data, but it could be obtained in a public cadastral map

after authorisation using the QES), and extracts are provided in limited circumstances: that is not open data. That is not about the publication of data, but about an administrative service with an application and identification of the applicant.

Additional restrictions on the disclosure of information about real estate and land plots in electronic registers are introduced by the Law of Ukraine "On Amendments to the Civil Code of Ukraine and Certain Other Laws of Ukraine Regarding the Peculiarities of Providing Information from Public Electronic Registers, the Holder of which is the Ministry of Justice of Ukraine, and Certain Other Public Electronic Registers». The law for the period of martial law and one year after its termination allows for the concealment of cadastral numbers of land plots and complete addresses of real estate objects registered under legal entities in the State Registration of Proprietary Rights to Immovable Property and related registers.

Access to the National Geospatial Data Infrastructure Portal from 02/24/2022 until the end of martial law, restricted by the Holder — the SLC.

NBU data and banking statistics

The National Bank of Ukraine maintains a section on its official website titled Open data. The NBU clearly states that the data may be used and distributed freely, including for commercial purposes. The regulator publishes daily official hryvnia exchange rates against foreign currencies and banking metals, indicators of bank activity, data on international reserves, indicators of monetary and credit statistics and financial markets, as well as other supervisory and macro-financial statistics. Through the API, part of the NBU's open data is available in machine-readable formats (XML and JSON). However, on the open data portal, a significant portion of the statistics is still in XLSX format.

During the interview, the NBU representative reported that the National Bank is working to expand the share of datasets it publishes in machine-readable formats via an open API. Among all datasets published by the NBU, the most requested, according to the NBU representative, are exchange rates: over 4 million downloads were recorded in 3 months. Other popular datasets: rates, securities and directories (from thousands to tens of thousands of downloads in 3 months).

Profile associations (e.g., the Association of Ukrainian Banks) and analysts use these data for risk assessment. Although the NBU does not publish a database of private clients' payment transactions, the NBU's macro statistics on banks are open and updated quarterly in machine-readable format. It is also possible to download some public information from the NBU website, such as information from the Deposit Guarantee Fund and credit unions, but not in machine-readable formats.

Public finance data (E-data)

Portal E-data (Single Web Portal for the Use of Public Funds) is a state open data platform in the field of public finances, created in accordance with the Law «On the Openness of the Use of Public Funds» and officially integrated into the public finance management system. The portal is administered by the state institution «Open Public Finances» (the Ministry of Finance of Ukraine is the holder).

The platform combines several key modules, including Spending (transactions, based on information from the State Treasury Service), Open Budget (planning and execution of state and local budgets), and analytical tools (Boost analysis, thematic panels, etc.).

E-data is a free, publicly available platform created primarily to ensure transparency and public oversight of public funds. The portal aggregates data on payment transactions in the Single Treasury Account, providers and recipients of budget funds, and contracts and their implementation (in particular, through integration with Prozorro). The platform provides a public API for automated access to data; however, there are limitations on the number of requests, the simultaneous analysis of multiple budget providers, etc.

Customs data

The State Customs Service of Ukraine published depersonalised information related to customs clearance on the Unified State Open Data Web Portal until February 2024. That includes, in particular, depersonalised aggregated information for statistical purposes, analytical sets, and depersonalised information on specific export-import transactions, which contains data for each customs declaration (declaration type, product code, customs value, weight, etc.) without identifying particular business entities.

Access to detailed, anonymised customs declarations is closed to the public. In addition, the service's website explicitly states that access to open data may be restricted for the period of martial law for national security reasons based on three-component tests conducted. The dataset "Depersonalised information on specific export-import operations", created based on the Resolution of the Cabinet of Ministers of Ukraine No. 462 dated 12.05.2021, was regularly updated until the beginning of 2024, but, according to the results of the three-component test, access to it is currently limited.

Environmental data

Ecological information in Ukraine is public: citizens have the right to know about the state of the air, water, soil, emissions, and other environmental impacts, and, according to Article 50 of the Constitution of Ukraine, such information cannot be classified. In Resolution No. 835, many environmental sets are defined as mandatory for publication as open data. Some of them are published as open data on the Unified State Open Data Web Portal (data.gov.ua) and specialised platforms (in particular, EcoSystem).

After the merger of the Ministry of Economy, the Ministry of Agrarian Policy and the Ministry of Environment, the united Ministry of Economy, Environment and Agriculture of Ukraine became one of the largest open data providers, including environmental data. The Ministry of Environment previously administered a significant portion of these datasets. In addition, environmental public information in the form of open data is published by the State Agency of Water Resources of Ukraine, the State Forest Resources Agency of Ukraine, the State Environmental Inspectorate of Ukraine, the Ukrainian Geological Survey, and the Ukrainian Hydrometeorological Centre.

EcoSystem functions as a central platform for environmental data. The platform offers 38 registers, some of which are available exclusively for web viewing and others in XLSX format. Access to the registers is also limited due to the requirement to use a qualified electronic signature. The combination of these factors makes it impossible to attribute this information to open data.

The SaveDnipro public organisation regularly monitors the status of environmental data disclosure through the SaveEcoBot platform. On the page «The state of access to environmental information in Ukraine», a detailed overview of the availability of key environmental datasets is published, including access status, the date of last update, and the source (an open data portal or a separate government body website).

Educational data

The Ministry of Education and Science and its subordinate institutions, such as the Institute of Educational Analytics and the National Agency for Higher Education Quality Assurance, are the leading open data providers in education.

The Ministry of Education and Science of Ukraine publishes on data.gov.ua more than 20 large datasets, including the lists of educational institutions (vocational, pre-professional, higher education), lists of general education and preschool institutions, depersonalised registers of diplomas and certificates, and data on admission campaigns and graduates by speciality.

The Unified State Electronic Database on Education (USEDE) is a central automated system for collecting, processing, storing and protecting educational information. The owner of USEDE is the state, the holder is the Ministry of Education and Science, and the technical manager is the state enterprise Inforesurs. The USEDE portal publishes data on educational institutions at all levels, statistics on the number of education seekers, a register of pedagogical and scientific-pedagogical workers, and data used for admission campaigns. The data is available through the API, which provides access to individual files.

According to Resolution No. 835, the National Agency for Higher Education Quality Assurance is required to publish three data sets on the Portal, but they have not been published.

Also, the Ukrainian Centre for Education Quality Assessment publishes open datasets on its website, and NMT/EIT results have been available since 2016. The data is de-anonymised and detailed, broken down by each participant. However, the data itself is not published on data.gov.ua.

Health data

More than 50 sets of medical data from central-level providers are available on data.gov.ua. According to Resolution No. 835, the key providers of open healthcare datasets are the Ministry of Health (22 datasets) and the National Health Service of Ukraine (NHSU, 17 datasets).

At this moment, the Ministry of Health publishes 24 open datasets on the Open Data Portal. However, most of them are updated too late or not updated at all. Also, the vast majority of datasets are published by the Ministry of Health in XLSX format, which lacks a machine-readable structure, rather than in more convenient machine-readable formats.

NHSU on the Open Data Portal publishes 16 open datasets, most of which are available for download in machine-readable format and are updated on time.

The State Service of Ukraine for Medicines and Drug Control also publishes datasets on the Portal. As of December 2025, the State Service of Ukraine for Medicines and Drug Control publishes seven datasets in the form of open data on the Unified State Open Data Web Portal, in particular, the license register for the right to carry out activities related to the circulation of narcotic drugs, psychotropic substances and precursors, as well as information about business entities from this register.

Based on interviews with companies interested in open healthcare data, we can conclude that the market lacks depersonalised, more detailed data on Ukrainians' diseases, including disease types, geographic location, and patient-level data, as well as personal data. That would help respond to challenges more quickly and effectively.

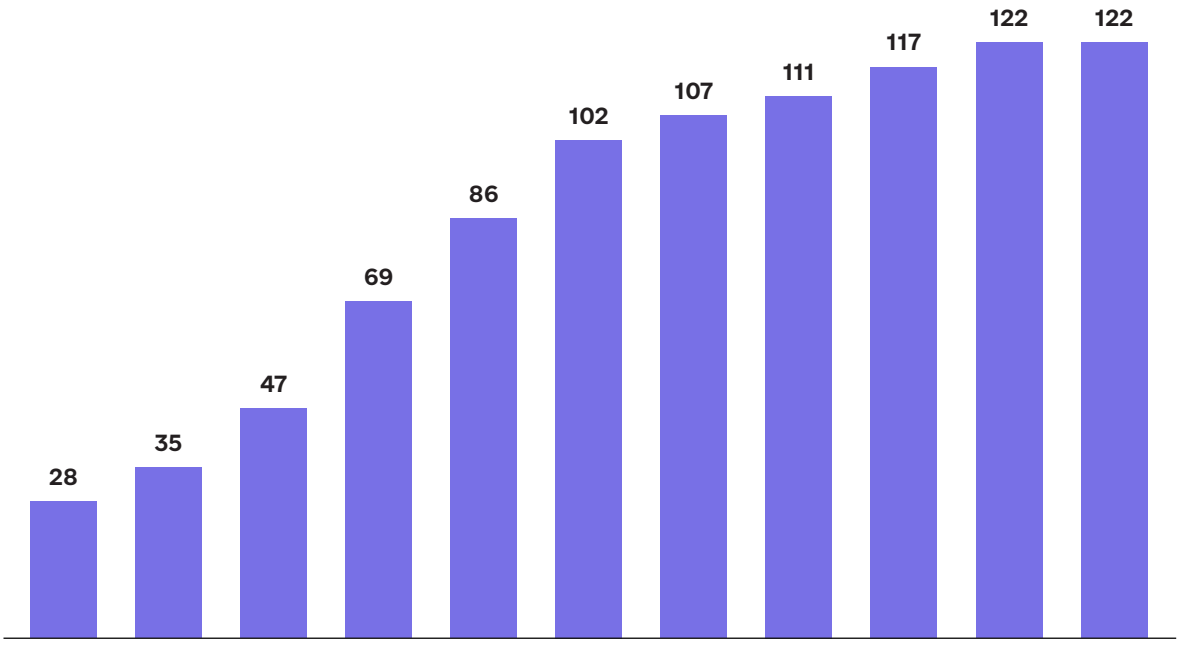
Market assessment

Market size

The market for services based on open data in Ukraine is actively developing, forming a noticeable segment of the digital economy. As of the end of December 2025, IER had identified 128 active services that operate on open data. For 89 services, we identified the legal entities that own or manage them. According to IER estimates, the core of the market consists of at least 62 legal entities.

Analysis of the dates of service domain registrations reveals several clear periods of service emergence. The first dynamic period occurred after the adoption of open data regulations: the market was activated. The peak occurred in 2018—2020, when the number of newly registered services reached about 20 annually, and the total number of services exceeded 100. At the time, analytical and monitoring platforms focused on open data were being actively developed. Since 2021, the trend has slowed, but new services have continued to appear, despite the Russian full-scale aggression, the closure of some sets and restrictions on access to registers (see Chart 1). That was partly due to stimulation, for example, through grant competitions. At the same time, some services gradually left the market.

Chart 1. Dynamics of service domain registrations based on open data, 2015—2025, cumulative



Source: service websites

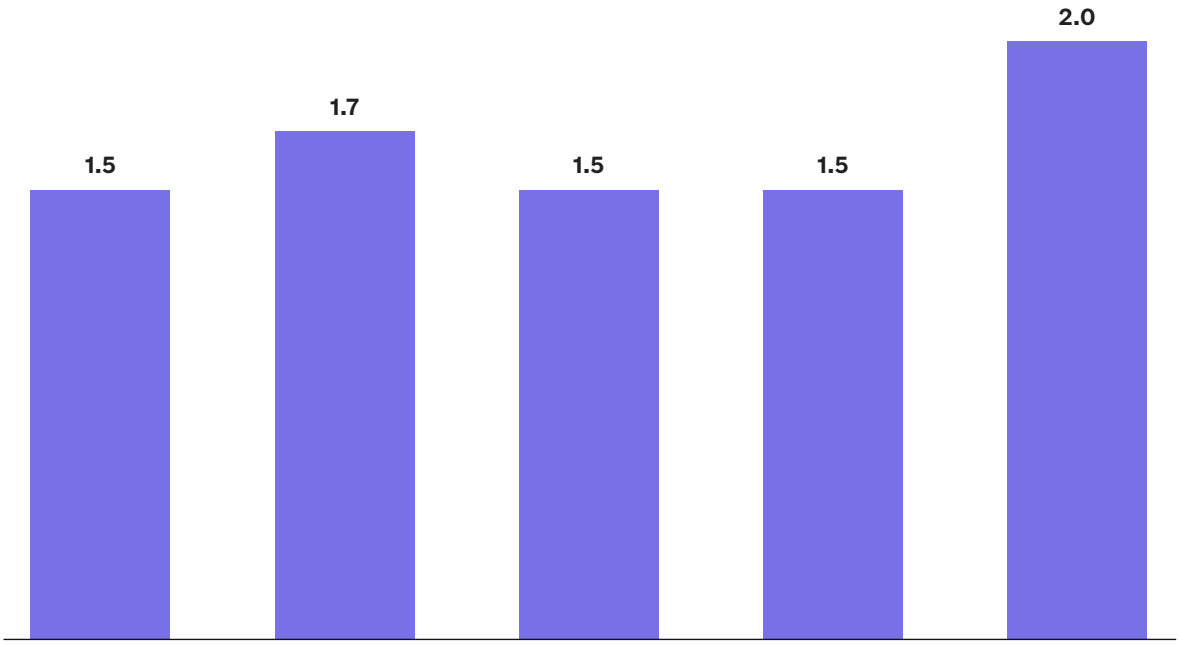
According to interviews with service companies, companies for which open data is an important, but not the only, element of their business model have an annual income of about UAH 40 million. At the same time, large players for whom open data is the basis of their business model (which does not exclude the use of other information resources) can achieve significantly higher incomes, up to approximately UAH 250 million per year. These estimates are based on respondents' self-assessments. They are indicative, taking into account possible differences in interpreting the concept of open data and its integration with other sources of information in companies' business practices. In general, the services industry working with

open data, represented by service companies, estimates its annual turnover at approximately UAH 7 billion, or about USD 174 million. Representatives of the banking, insurance, legal, and security sectors estimate the size of the Ukrainian open data market at USD 100—150 million.

The IER's assessment of the sector core, i.e., service companies, shows that in 2024 the market size will be UAH 2 billion, or USD 50.1 million. Thus, the assessment based on the companies' financial indicators is significantly lower than the market assessment value determined independently by the respondents. That may be due to the difference in understanding of what constitutes open data (see Chart 2).

Assuming that the ratio of value added to intermediate consumption in the open data sector is equal to that in the computer programming sector, the share of open data corresponds to 0.02—0.05% of Ukraine's GDP in 2024. For comparison, the combined size of the information and telecommunications sector is about 4.7% of GDP, according to IER and GET estimates.[14]

Chart 2. Revenues of service companies whose services are active as of December 2025, 2020—2024, UAH billion



Source: financial statements

However, the total market size is likely to be much higher. The IER's estimate, based on the number of requests, the duration of the alternative path to obtain information, and the average salary, shows that the total value of open data could be UAH 26.8 billion or USD 668 million, which is 13 times higher than the revenues of the market core market itself. For comparison, in EU countries, the total open data market is estimated at over EUR 334.2 billion, indicating the significant potential for the development of the Ukrainian sector and the growth of its economic weight.

It should be noted that the overall market assessment is significantly lower than the calculations from previous market studies, due to extrapolating the EU market's size and level of development to Ukraine. It can be assumed that this is due to differences in purchasing power between Ukraine's GDP and that of the EU countries, which determine the market's profitability.

[14] Kosse, I., & Poluschkin, G. (2025). IT Sector Monitor Ukraine. BE Berlin Economics GmbH. 20 p. https://www.german-economic-team.com/wp-content/uploads/2025/05/GET_UKR_PB_03_2025-3.pdf

During interviews with providers, experts, and companies working with open data, it became clear that the open data market in Ukraine had been growing steadily before the full-scale invasion. At the same time, they emphasised that some of the services mentioned during the interviews were not based exclusively on open data but also used data from state registers available via paid APIs. That indicates that, when describing the dynamics of market development, respondents often combined open data services with solutions based on paid access to registers. In 2016—2021, open data became an essential part of the economic ecosystem: powerful analytical platforms, tools for monitoring budget expenditures, checking counterparties, financial reporting, and court decisions, as well as services in the fields of healthcare and ecology, appeared. It was at this time that services such as Opendatabot, YouControl, LIGA360, Clarity Project, etc. were actively developing, demonstrating an example of sustainable demand for data from both business and the public sector, and Ukraine occupied and continues to occupy leading positions in the region in terms of the pace of digitalisation and transparency.

After the full-scale invasion of 2022, the open data market faced severe turbulence: more than 20 key state registers and thousands of datasets, including the USR, the SLC (access to which was completely closed), tax reporting arrays, open customs declarations and the register of construction activities. That led to about a quarter of services that relied on open data suspending or significantly reducing their operations, particularly real estate analysis modules and applications for beneficiaries or building permits. Services such as Opendatabot, YouControl, Clarity Project adapted, combining work with the paid API of the Unified State Register, which remains a key source for the basic assessment of counterparties, but is not the only verification tool, and other data like court decisions, financial statements, sanction lists, debt registers and international databases. During 2022—2023, access to most datasets was gradually restored; however, some sensitive categories, primarily personalised cadastral data, part of construction arrays and tax data, remain limited, which continues to affect the full recovery of the market.

Representatives of financial institutions emphasise that the economic effect of open data is much broader than its direct market value. That is not about “increasing total GDP” as a direct result, but about an indirect impact, since open data acts as an infrastructure resource and a catalyst that increases the productivity of processes in the private and public sectors. According to respondents, the availability of high-quality data reduces decision-making time in banks and insurance companies, accelerates underwriting, and simplifies financial monitoring and customer verification, allowing businesses to operate faster and more efficiently. The cumulative effect of these processes, according to their calculations, can generate 5—7% additional economic growth, primarily through increased productivity and the development of related digital services, rather than as a direct contribution of open data itself.

Thus, according to respondents, what is being formed in Ukraine is not so much the market for services based on open data itself — after all, several stable products have been operating for many years, but rather the institutional environment and infrastructure of open data that ensure its further development. That includes expanding API integrations, unifying data formats, improving their quality, and gradually harmonising them with the European digital infrastructure. According to market participants, these systemic changes lay the groundwork for stable sector growth and can lead to a significant increase in its size in the medium term.

Respondents noted that after 2022, the market size decreased, while demand for reliable, timely information increased significantly. It was not the “core audience” that changed, but the user base: traditional commercial services such as YouControl or Opendatabot were joined by state bodies, international partners, and volunteer organisations that need open data for risk analysis, control, and monitoring. Open data has become especially important due to legislative requirements for verifying counterparties in public procurement, transactions involving state and municipal property, and work with public funds, including mandatory verification of the absence of citizens of Russia, Belarus, Iran, and other sanctioned jurisdictions among beneficiaries. New use cases show that open data is increasingly used in management decision-making. In particular, the World Bank actively uses open data and the Prozorro system infrastructure in its research on the effectiveness of public procurement, competition, transparency and anti-corruption control in Ukraine. At the same time, the market structure remains stable: leading players continue to focus mainly on the commercial segment, and new users and functions expand the scope of open data applications without replacing the original usage models.

After 2022, state institutions, international donors, and volunteer initiatives joined the traditional users of the data.gov.ua portal — businesses, journalists, and analytical services. They use open data to increase transparency in reconstruction, monitor budget expenditures, and verify partners in technical assistance projects, but this did not change the overall structure of the market, only expanded the range of its users.

In general, respondents say the open data market in Ukraine is gradually recovering, primarily due to improved data quality and structure, expanded API access, and stable updates. Market participants expect further growth of open data-based services and a stronger role for commercial companies in their development.

Thus, the results of the interviews confirm that the open data market in Ukraine is gradually moving from a recovery phase to a stage of institutional strengthening and financial expansion, marked by increased investment in services, expansion of paid products, and an increase in the number of commercial clients. Its development is ensured by the interaction among providers, the private sector, and the expert community, which creates synergy among innovative potential, transparency, and economic benefits for society.

A case in point is the company YouControl, which, in the first months of the full-scale invasion, provided volunteer structures with extensive data sets free of charge for checking counterparties and individuals for territorial defence and risk monitoring. During this period, a new segment of users emerged: military administrations, the Ministry of Defence, and international partners who needed operational, verified data for decision-making. In parallel, YouControl expanded its product suite, creating separate solutions for volunteers and international asset monitoring.

Based on survey results and focus groups with experts, providers, and companies, it can be concluded that a combination of commercial and social factors currently drives the formation of the open data market in Ukraine. Participants in the discussions noted that, despite the reduction in the number of active projects in 2022-2023, the market's economic potential remains significant, and demand for high-quality, verified data remains consistently high.

In particular, analytical companies and public initiatives operating in energy, ecology, transport, forensics, and urban planning continue to develop their services, ensuring stable cash flow and supporting market competition. The focus group participants specified that the most actively growing segments are those where open data remains available even during wartime and have a clear applied value: environmental monitoring (sensor network data), analysis of construction activities based on the Unified State Electronic System in the field of Construction, company verification and financial reporting, as well as anti-corruption and analytical systems that use court decisions and open registers of central government bodies. At the same time, respondents emphasise that the development of geoinformation services is significantly constrained by the lack of open access to cadastral data and to a significant portion of geodata during wartime.

They also noted that the development of the open data market after 2022 has been uneven: businesses are investing more actively in their own or commercial analytical solutions and data sources, as access to some public open data has been significantly restricted. In contrast, public providers work under staff and resource constraints, which affect the quality and regularity of updates. Respondents express uncertainty and fear of further narrowing of access to data, so it is too early to claim a new level of trust. In general, the current situation is characterised by growing demand and user activity, while institutional development is progressing more slowly due to wartime conditions.

Some case studies demonstrate how open data remains an essential element of products even under partial access restrictions. For example, real estate services, which until 2022 worked primarily based on data from the urban planning cadastre, urban planning documentation, and open registers of construction activities, after the closure of the land cadastre, reoriented to a combination of available USESCS sets, court decisions, permit registers, and their own analytical bases. That allows them to maintain their business model, although access to critical geodata remains limited. In the environmental segment, initiatives that combine open regulatory data with information from their own sensor networks (for example, SaveEcoBot) and create

products to assess ESG risks (environmental, social, and governance) are growing. In the energy sector, the potential of open data is largely untapped, and the development of analytical maps and databases relies primarily on the activities of individual specialised organisations, such as DIXI Group. At the same time, state registers and geodata in this area are largely unavailable. These examples emphasise not the "transformation of open data into a self-sufficient economic asset", but rather the market's dependence on open data as a foundation, forcing participants to supplement it with alternative sources to maintain service viability in wartime.

Thus, market participants note a gradual recovery of the open data sector activity after 2022. Growth is not due to an increase in the number of services, but due to the broader use of data in business processes, compliance and analytics. Respondents attribute this to the partial restoration of the availability of state registers and improved quality of individual sets, while emphasising that access to registers does not always mean access to open data. Therefore, expectations for further growth are based mainly on the practical value of data: saving time, reducing risk, and expanding opportunities to create digital solutions.

Market segmentation

According to the results of interviews and focus groups, companies working with open data are divided into three segments: (1) companies for which open data is core for their activities; (2) companies for which open data is an important, but not the only component; (3) companies for which open data plays a supporting role.

The first group includes services whose business models are based on open data. These include YouControl, Opendatabot, Vkursi, Clarity Project, and other products that rely almost entirely on arrays of official registers, financial statements, court decisions, data on developers, and transactions involving public funds. This segment suffered the most following the 2022 full-scale invasion. Some smaller services were forced to stop operating or reduce functionality (for example, Dreamdim's Urbandata service), while more resilient players maintained operations by adapting data sources and product structures.

The second group is services in which open data is an important, but not a defining part of the business model. This segment includes, in particular, LIGA360 (LIGA:LAW), SaveEcoBot, etc. Such products combine open datasets (e.g., court decisions, public funds data, environmental data, data from the data.gov.ua portal) with their own databases, commercial sources, user data, or sensor systems. The share of open data in their activities is significant but not dominant: they provide key context for analytical modules and internal processes, while the business retains functionality even under temporary restrictions on access to some sources.

The third group includes companies for which open data is an additional or auxiliary functionality (Dixi Group, NGO "Liki Control"). They use it to verify, clarify or analytically support the main areas of activity, but not as a central element. This segment includes, for example, medical services that use open data as a supplement to their own databases, as well as individual urban and research projects that integrate open data into specific analytical tasks. In these areas, the available information remains limited, so open data does not underpin products but rather serves a supporting role.

Overall, about half of the surveyed companies are utterly dependent on open data, about a third use it as an important but not the only resource, and the rest use it as an additional tool.

Segmentation by industry

In the insurance sector, open data has become a key element of digital transformation, increasing efficiency, decision-making speed, and the accuracy of risk analysis. According to the results of interviews, the share of open data in insurers' business models is on average 20-50% in those processes that have direct financial consequences (underwriting, fraud detection, assessment of underlying risks), and up to 80-100% in strategic areas — compliance, AML/KYC, sanctions checks and work with the ownership structure, where open data is critical for legitimate and scalable activities.

In the risk insurance segment, the companies surveyed indicate that approximately 70—80% of their operational processes rely on a combination of open and open-source data. These include vehicle specifications (without personal data), court decisions, financial statements, and information on public funds. According to respondents, these sets provide the basis for remote contract conclusion, speed up verification and increase the accuracy of underwriting. At the same time, the remaining data comes from internal systems, commercial sources, or client documents.

In the area of personal insurance (life and health), the share of open data is lower—approximately 30—40%, since most operations are based on internal medical, actuarial, and client data. At the same time, information from open sources, primarily macroeconomic statistics, demographic indicators, regulatory data, and companies' financial reporting, is essential for calculating tariffs, forming insurance portfolios, and long-term forecasting. Open data here plays a supporting but essential role, providing context for assessing long-term risks and modelling insurance events. At the same time, compliance and financial monitoring are everyday tasks across all insurance segments, not specific to personal insurance.

As a result, insurance companies are forming a data-driven business model (a model in which key decisions are made based on data, not assumptions), which primarily uses data from open sources — macroeconomic statistics, regulatory indicators, financial reporting — as a tool for identification and control, as well as for strategic planning, development of digital services and personalized insurance products.

In the banking sector, open-source data, particularly open data, has become a systemic factor in financial decision-making, lending, and risk management. According to the estimates of the surveyed banks, up to 85% of strategic processes of compliance, verification of the ownership structure, sanction analysis, and company scoring are based on information obtained from open sources, in particular, open data (court decisions, financial statements, regulatory data, risk indicator aggregators). For operational financial processes — underwriting, creditworthiness assessment, rapid customer checks — the share of such data is approximately 40—50%, the rest is supplemented by the bank's internal systems and customer documents.

Open data sets are used for automated scoring, counterparty verification, customer solvency assessment and compliance with financial monitoring requirements. Data from open datasets, as well as information from public registers available through commercial APIs (in particular, USR), court decisions, credit bureaus, and sanction lists are integrated into scoring models and verification systems. That ensures prompt approval of credit decisions and supports remote customer onboarding (account identification and opening without physical presence). This approach increases the efficiency of banking processes, reduces verification time, and speeds up financial interactions between customers, businesses, and the state.

In the legal and security services sector (compliance, due diligence, corporate security, analytical monitoring), open data sets play a supporting but essential role. According to the survey, about 20—25% of analytical operations are based on open data, primarily court decisions, information on public funds, and some open registers of licenses and permits. In contrast, tasks related to changes in corporate structures, company verification, or beneficiary analysis rely on state registers available via commercial APIs. In this segment, open data provides context for risk identification and monitoring of legal processes, complementing the main verification tools.

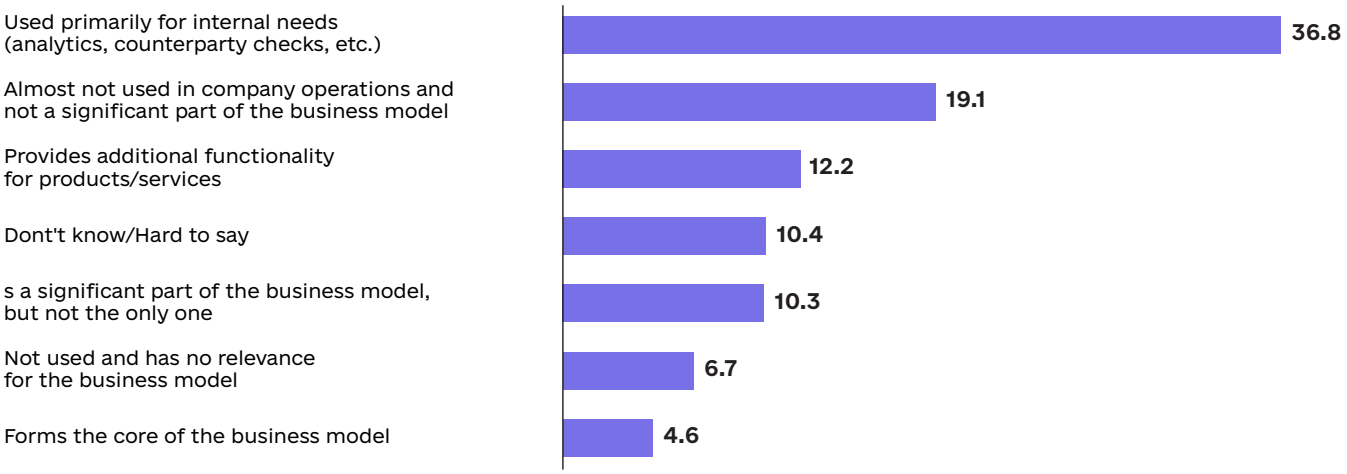
Access to open data sets allows legal and analytical services to automate part of the monitoring process: tracking judicial events, changes in permits or licenses, and forming information profiles of counterparties, and to promptly respond to risk signals within the framework of legal support. At the same time, key components of financial monitoring and compliance rely primarily on state registers accessible through commercial APIs, which are not open data. Therefore, in legal practice, open data serves an auxiliary function, enhancing the transparency of individual processes and supplementing the main verification tools.

Thus, the interview results indicate that, for example, in the financial and legal sectors, open data primarily plays a supporting but essential role, strengthening analytical and monitoring processes and complementing state registers and internal systems. They do not form the ba-

sis of these industries' business models. Still, they improve the efficiency of individual operations, support the development of digital services, and enhance transparency in interactions among market participants.

The results of the online survey and the IER New Monthly Enterprise Survey revealed the role of open data in Ukrainian companies' activities. The majority of enterprises (36.8%) use open data mainly for internal needs — analytics, counterparty checks, risk assessment and planning. That indicates that data has become an essential tool for supporting management decisions, but not the basis of the business model. Another 12.2% of companies integrate open data as an additional functionality of products or services. In comparison, only 4.6% indicated that it is a core part of the business model (see the subsection "The impact of open data on IT projects"). For 10.4% of respondents, data is of significant but not decisive importance, and 19.1% use it minimally or episodically (see Chart 3).

Chart 3. Estimation of the importance of open data for the organisation/company where you work, 2025, in %



Source: Online survey «Assessment of the Open Data Market in Ukraine» and IER New Monthly Enterprise Survey, September 2025

Note: The graph includes organisations/companies that form both the core of the open data market and those that lie outside it

Segmentation by enterprise size

When analysing the importance of open data to the economy beyond the core open data market, it is important to note that respondents' interpretation of the assessment as "core to the business" does not necessarily mean the company is producing products based on open data. Instead, it is a recognition of the role this information plays in key business decisions.

The IER New Monthly Enterprise Survey showed that the level of open data use differs significantly by enterprise size. The general trend is that as the scale of the business grows, open data becomes not just an auxiliary tool but a key element of the business model. If among micro-enterprises, such data is mainly used for internal needs — analytics, counterparty verification or market assessment (23%), then among large companies, they already form the basis of business processes (monitoring of purchases, supply chain management, integration into BI systems, etc.), which is confirmed by 83% of respondents in this group. That indicates a more mature approach by large players to using data as a strategic resource.

For micro-businesses, open data remains of limited importance: only 2—8% of enterprises use it as part of or as the basis of their business model. The majority of such companies use data sporadically, mainly for partner verification or internal analysis. However, among small companies, the share of those integrating open data into their activities is gradually increasing: 11%

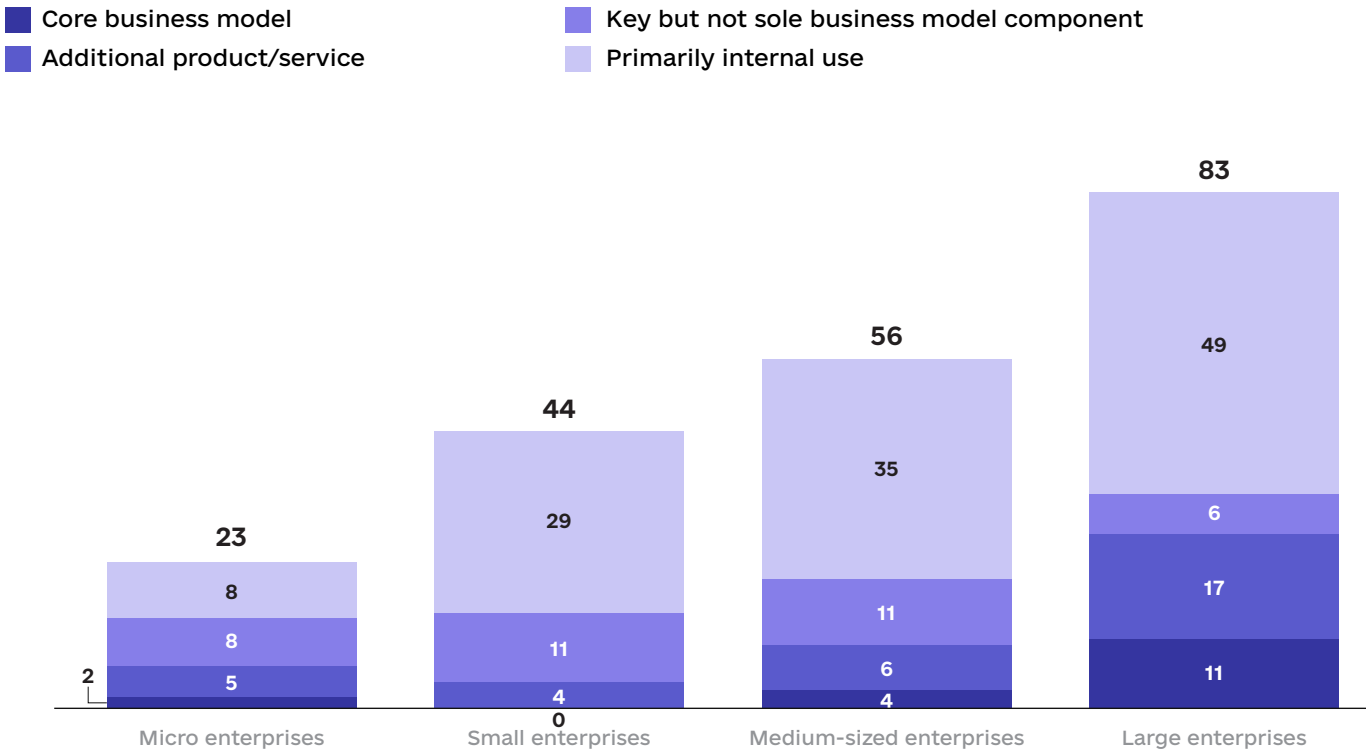
of respondents consider it a crucial component of the business, and another 29% use data to improve product and service functionality. That suggests the emergence of a deeper understanding of the value of data in the small business sector.

Mid-sized companies are demonstrating a shift towards a more systematic use of open data: 35% of respondents said that data is an essential part of their business model, and another 11% said it is the foundation of their business model. At the same time, more than half of such enterprises use data for internal needs, in particular for analytics, risk management or market monitoring. Thus, mid-sized businesses act as a kind of bridge between situational and strategic data use, gradually integrating it into daily management processes.

The highest level of open data integration is observed among large enterprises. For them, data has become an integral part of corporate strategy: 83% of respondents reported that it is actively used in the business model, with 17% considering it an essential component and 11% considering it the basis of all activities. Many other large companies (49%) are limited to using data internally. This structure demonstrates that large enterprises not only have the technological capabilities to work with data, but also use it as a basis for innovation, analytics and efficiency improvement.

Overall, the IER survey results confirm a direct relationship between the scale of the enterprise and the level of integration of open data into business processes. The larger the company, the more deeply it uses data, indicating the gradual formation of a data-driven management culture and awareness of the economic value of open data in Ukrainian business (see Chart 4).

Chart 4. Importance of open data for enterprises according to their size, in % of total responses



Source: IER New Monthly Enterprise Survey, September 2025

Note: The total per column shows the percentage of respondents in the corresponding size who consider open data important. For the remaining respondents in the corresponding category, open data was not important, or they were unable to answer the question.

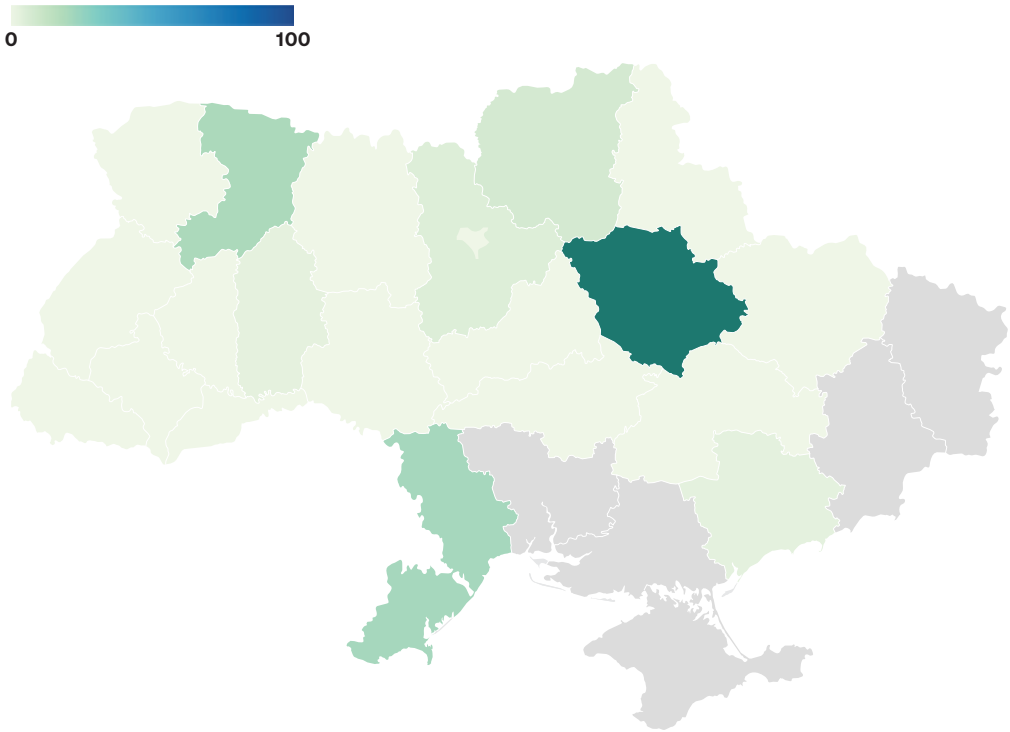
Segmentation by region

According to the IER New Monthly Enterprise Survey, open data is central to companies' business models in certain regions of Ukraine. The highest indicator was recorded in the Poltava region — 33.3% — indicating a significant level of open data integration into local enterprises' activities. High values are also observed in the Odessa (21.4%) and Rivne (20%) regions. Kyiv and Chernihiv regions have somewhat lower, but noticeable results. In other regions, the share of enterprises with open-data-based business models is insignificant or nonexistent.

Indicators of the use of open data as the basis of the business model are characteristic primarily of food industry enterprises, which actively use open data (public procurement data, legislation, statistics, etc.) in production and logistics processes, quality control, and market analytics. In addition, most such companies are classified as large enterprises, with developed digital infrastructure and their own analytical departments.

200. Overall, this indicates that the use of open data as a key element of the business model is local in nature and is so far widespread only in selected regions of Ukraine (see Map 1).

Map 1. Enterprises for which open data is the core business model, by region, in %

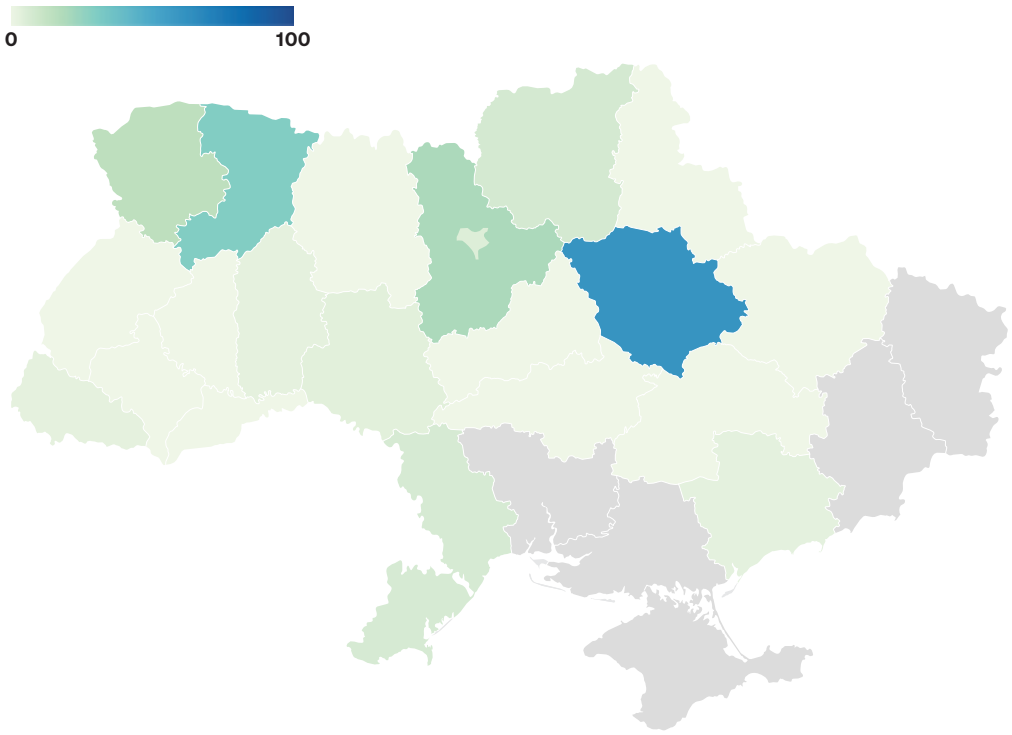


Source: IER New Monthly Enterprise Survey, September 2025

Note: The scale on the map shows the percentage of responses, i.e., the proportion of total responses to a specific question from each region. For each question, the sum across all regions equals 100%.

According to the IER New Monthly Enterprise Survey, open data is a key, but not the sole, part of the business model of companies in several regions of Ukraine. The highest figure is observed in the Poltava region — 60% — indicating the active use of open data alongside other business activities. High shares are also recorded in Rivne and Kyiv regions. Open data has a significant role in the structure of enterprises' business models in the Volyn region (see Map 2).

Map 2. Enterprises for which open data is a key, but not the sole part of the business model, by region, in %

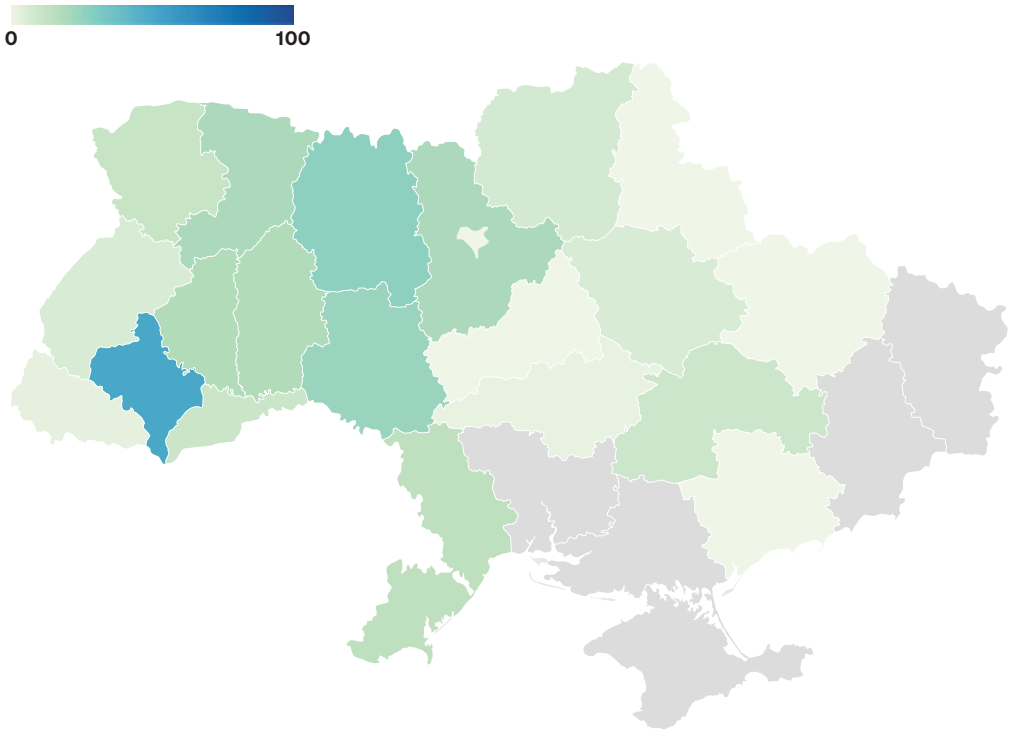


Source: IER New Monthly Enterprise Survey, September 2025

Note: The scale on the map shows the percentage of responses, i.e., the proportion of total responses to a specific question from each region. For each question, the sum across all regions equals 100%.

The IER New Monthly Enterprise Survey showed that in many regions of Ukraine, open data plays a supporting role in business models, enhancing product or service functionality. The highest rate is observed in the Ivano-Frankivsk region — 50% — where open data is actively integrated into companies' activities to improve their solutions. A significant share is also recorded in Rivne and Vinnytsia regions. Thus, in these regions, open data is mainly used to strengthen existing products and services, contributing to increasing the efficiency and competitiveness of enterprises (see Map 3).

Map 3. Enterprises for which open data is an additional functionality for products/ services, by region, in %

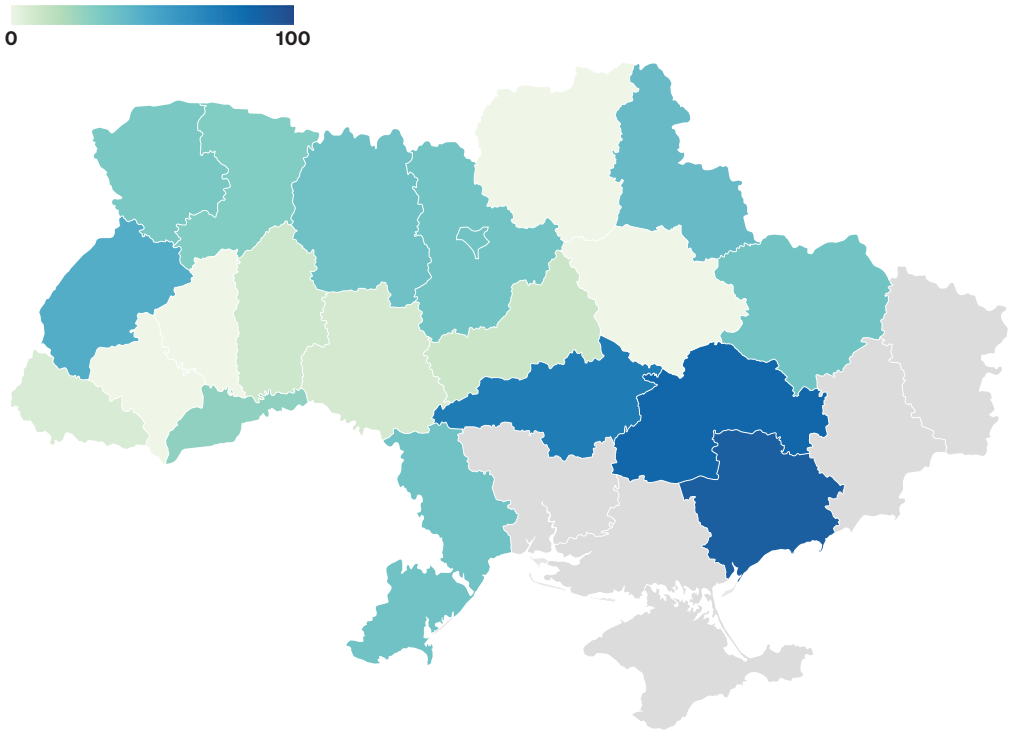


Source: IER New Monthly Enterprise Survey, September 2025

Note: The scale on the map shows the percentage of responses, i.e., the proportion of total responses to a specific question from each region. For each question, the sum across all regions equals 100%.

In addition, a significant part of enterprises use open data mainly for internal needs: analytics, checking counterparties or optimising internal processes. The highest indicators were recorded in the Zaporizhia region — 89.7% — and the Dnipropetrovsk region — 85%, indicating the active use of open data to increase management efficiency and reduce risks in economic activities. High shares are also observed in the Kirovohrad region. In other regions, the level of use of open data for internal purposes is lower. However, the general trend indicates the spread of the practice of using such data, primarily for internal analytics, monitoring and evaluation of counterparties, rather than directly creating or promoting products (Map 4).

Map 4. Enterprises that use open data mainly for internal needs, by region, in %

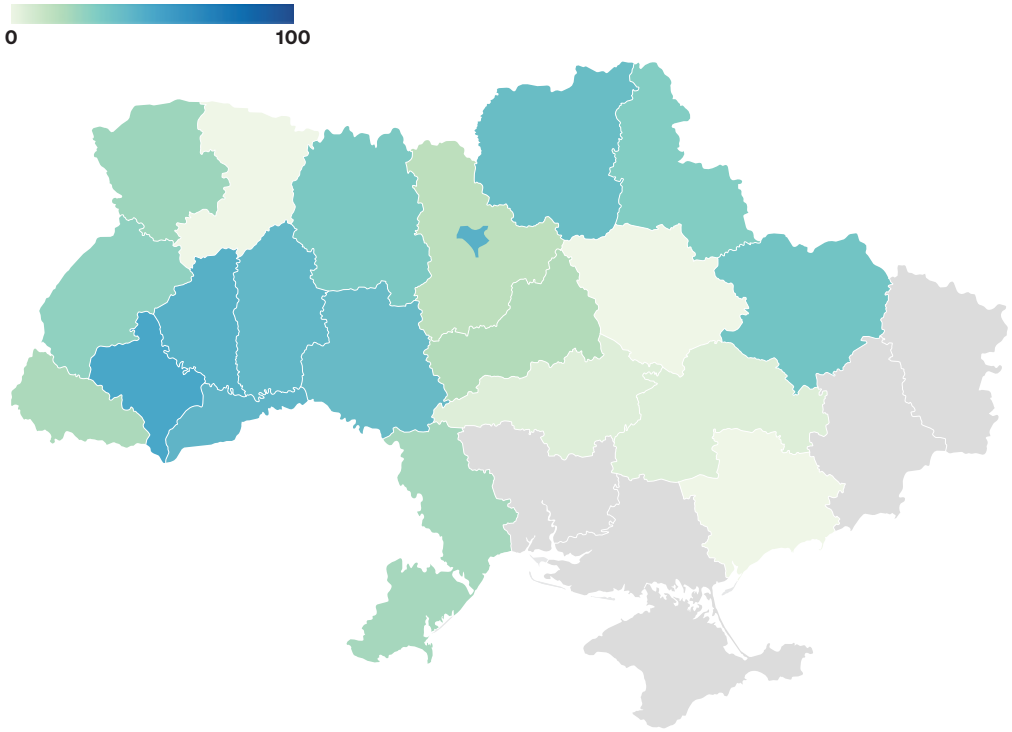


Source: IER New Monthly Enterprise Survey, September 2025

Note: The scale on the map shows the percentage of responses, i.e., the proportion of total responses to a specific question from each region. For each question, the sum across all regions equals 100%.

At the same time, the survey results show that in some enterprises, open data is used sparingly and is not a significant part of the business model. The highest rates of non-use were recorded in Ivano-Frankivsk and Ternopil regions. A substantial share of such enterprises is also observed in Khmelnytskyi, Vinnytsia and Kharkiv regions. Though in many regions this indicator is low or absent, which may indicate a more active integration of open data into business processes. Overall, these results highlight a significant regional gap: while in some regions open data is actively used for internal or functional needs, in others it remains underused, indicating the need for broader dissemination of open data practices among enterprises (see Map 5).

Map 5. Enterprises that almost do not use open data in their activities, by region, in %

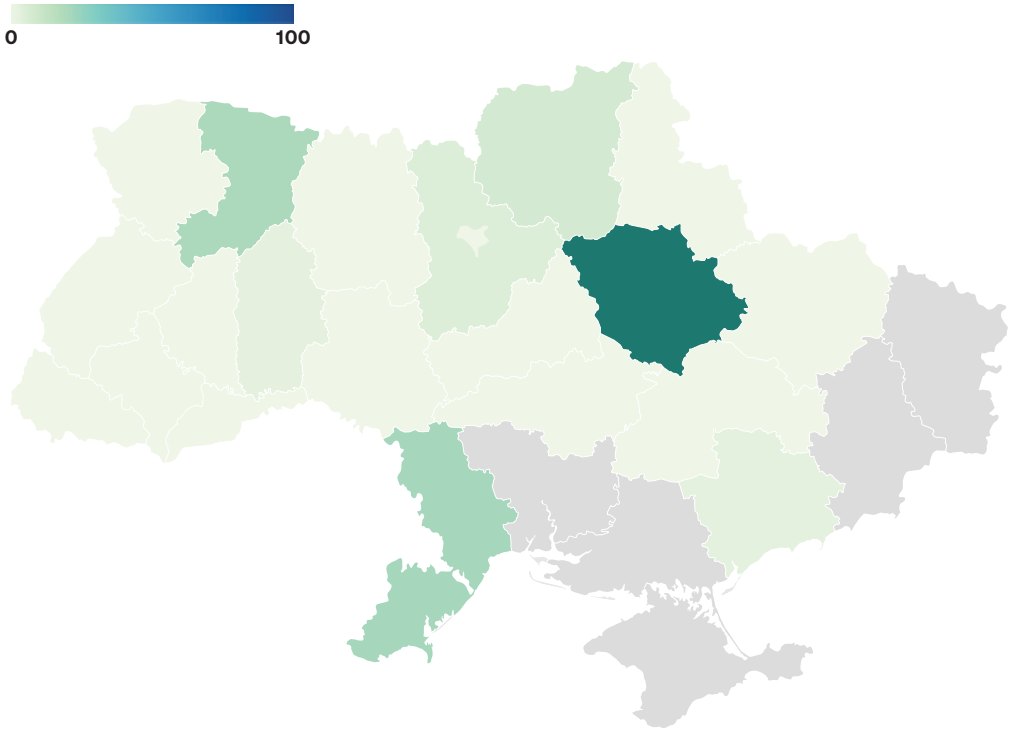


Source: IER New Monthly Enterprise Survey, September 2025

Note: The scale on the map shows the percentage of responses, i.e., the proportion of total responses to a specific question from each region. For each question, the sum across all regions equals 100%.

In addition, in several regions, enterprises reported that they do not use open data at all in their activities and that it is not relevant to their business model. The highest rates were recorded in Chernihiv, Sumy and Vinnytsia regions. Notable shares are also observed in the Kirovohrad and Cherkasy regions. In most other regions, this indicator remains at up to 10% or is absent altogether. These results indicate that, despite the general increase in interest in open data, some enterprises still do not perceive it as a practical or relevant tool for their activities. That may be due to low awareness, a lack of data skills, or limited availability of high-quality open datasets in certain regions (see Map 6).

Map 6. Enterprises that do not use open data in their activities, by region, in %



Source: IER New Monthly Enterprise Survey, September 2025

Note: The scale on the map shows the percentage of responses, i.e., the proportion of total responses to a specific question from each region. For each question, the sum across all regions equals 100%.

Thus, the regional distribution of the use of open data by enterprises showed that the use of open data as the basis of the business model is isolated and concentrated in a small number of regions (Poltava, Odesa, Rivne regions), which indicates the localisation of deep integration of open data into business processes. In several regions (Rivne, Kyiv, Volyn), open data plays a prominent role in business models but is often combined with other tools and resources, resulting in a mixed digital approach. In many regions (Ivano-Frankivsk, Vinnytsia, Rivne), open data is primarily used to enhance product or service functionality, providing additional analytical value without affecting the strategic business model. A significant part of enterprises (Zaporizhzhya, Dnipropetrovsk regions) is characterised by the use of open data, primarily for internal analytics, monitoring and risk management, which indicates a desire to optimise operational activities. In several regions (Ivano-Frankivsk, Ternopil, Khmelnytskyi, and Kharkiv), open data remains underused, which may be due to limited enterprise competencies, low awareness, or limited access to relevant datasets.

Sectoral analysis of open data use

Understanding how different industries are using open data is key to assessing its real impact on the economy. Each sector, from finance and logistics to food and beverage and legal services, integrates data in its own way, relying on different datasets, tools, and business processes. That is why sectoral analysis allows us to see where open data creates the most value, which industries face barriers to access, and which areas have potential for further development.

During the interviews, respondents noted that the use of open data in Ukraine has a pronounced sectoral structure that persisted even after 2022. Before the full-scale war, the leading users were IT companies, the financial sector, transport and media, which used data for analytics, verification of counterparties, monitoring of procurement and control of public funds.

Currently, IT and financial companies continue to maintain leading positions among users of open data. After 2022, they were joined by media outlets, public organisations, and think tanks that actively use open data in anti-corruption, environmental, and reconstruction work. The role of government bodies and volunteer initiatives is also essential, as they use open data to verify partners, analyse cost-effectiveness, monitor procurement, track permits, and plan projects. This structure is explained by several factors: increased demand for transparency, the need for rapid verification of counterparties, the transition of government services to digital work models and the expansion of public control over the use of public resources.

Interview respondents and focus group participants noted that after 2022, the structure of demand for open data changed: alongside commercial use, the share of socially important applications increased significantly. Currently, demand is focused primarily on high-quality, structured and regularly updated open data sets — financial, transport, and environmental. Their popularity is due to higher data quality, established formats and accessible technical specifications (for APIs), which ensure convenient integration and stable operation of analytical tools.

As a result of the Online Survey, respondents identified several sectors in which open data offers the greatest benefits for business development and social processes. It is worth noting that survey participants could select multiple options at once, so the figures presented reflect the proportion of responses rather than the percentage distribution.

The highest level of importance of open data is observed in the financial and banking services sector (62%) and in the public sector (public administration and finance) — 62%. That indicates the critical role of data transparency and accessibility in the financial sector and public administration. Relatively high indicators are also evident in professional services (legal, consulting, architectural, etc.) — 47% — and trade/retail — 41% — sectors, where open data enhances the efficiency of market relations. Interviews with representatives of the banking and insurance sectors confirmed that these industries are among the largest users of open data in Ukraine.

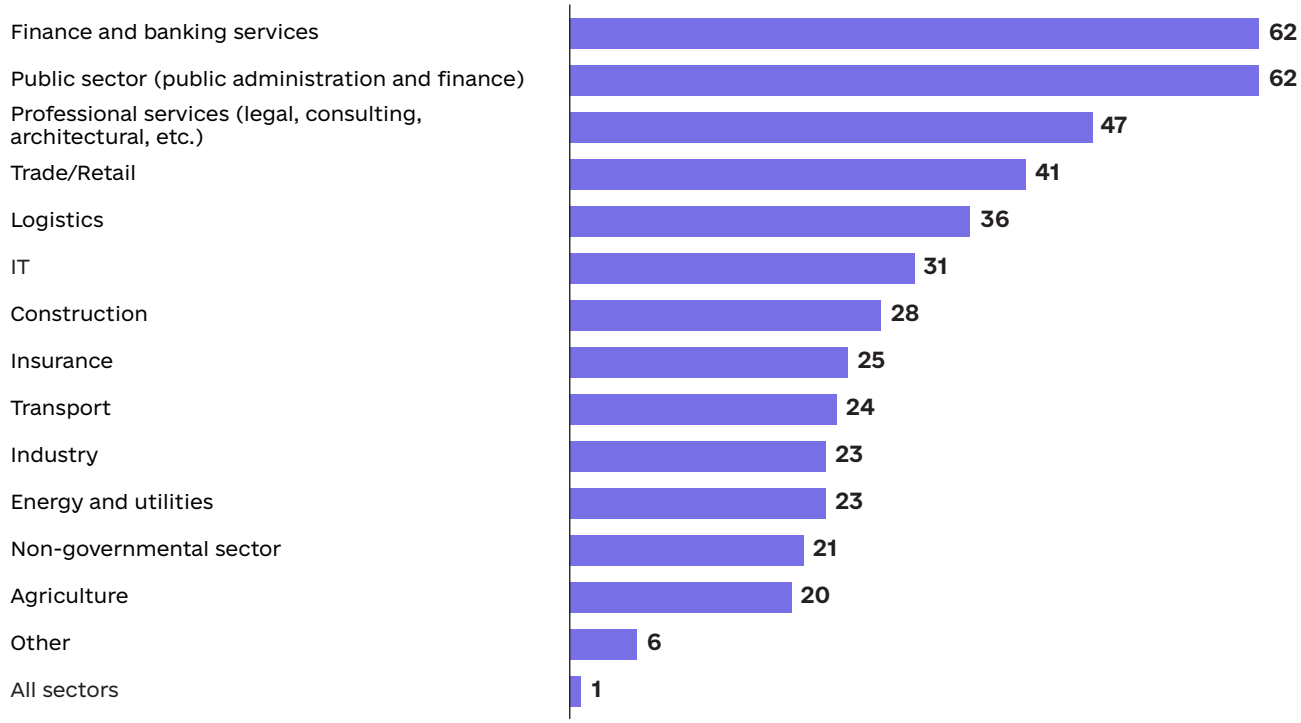
Respondents indicated medium importance for logistics (36%), the IT sector (31%), and construction (28%). Such figures suggest that in these industries, open data is used to support daily operations, including supply chain optimisation, automated counterparty verification, risk management, and digital customer interactions. Dependence on data here is not critical, as in the financial or public sector, but its availability significantly affects the speed of processes and the quality of services. At the same time, in transport (24%), industry (23%), energy and utilities (23%), and the non-governmental sector (21%), the importance of open data is also significant, but lower than in finance or the public sector.

Respondents indicated the least importance for open data in agriculture (20%), in other spheres (culture, education, etc.) (6%), and in the generalised category “all sectors” (1%). That shows that, while open data is vital across industries, its impact is uneven and depends on the specifics of each sector (see Chart 5).

In conclusion, open data creates economic value for economic sectors, primarily through reduced transaction costs, shorter verification times and reduced information asymmetry between market participants. In industries with high risk and complex supply chains, this directly affects operational speed, competitiveness, and trust. Where digitalisation is lower, or the

available datasets are limited, the effect of open data is less noticeable, yet it still enhances transparency and supports decision-making.

Chart 5. Sectors in which open data is most important, according to respondents, 2025, in %



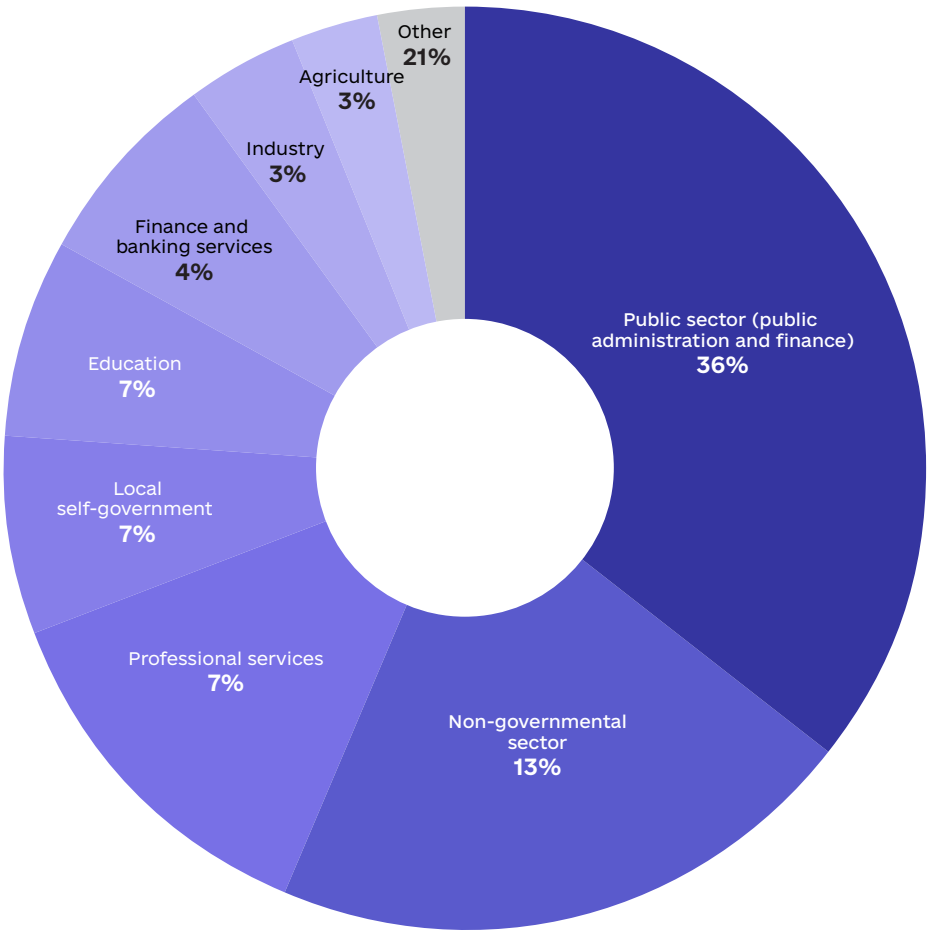
Source: Online Survey «Assessment of the Open Data Market in Ukraine»

The responses of the online survey participants also reflect the structure of the sectors they represented. The largest share of respondents works in the public sector (public administration and finance) — 36% — which explains the high level of attention to data transparency and the regularity of their updates. A notable group comprises representatives of the non-governmental sector — 13% (business, public organisations, analytical services) — who actively use data in their activities. Thus, the sample's structure confirms the importance of these sectors in the broader landscape of open data users.

Also significant are the contributions of respondents from education (7%), professional services (7%), and local self-government (7%), who use data for research, consulting, community management, and decision-making. Individual representatives from finance and banking services (4%), industry (3%) and agriculture (3%) confirm that data is needed for financial analysis, production planning and resource management.

In addition, a significant share of respondents falls into the "other" category (21%), which encompasses less numerous but diverse spheres — healthcare, construction, IT, culture, transport, etc. (see Chart 6).

Chart 6. Online survey respondents by sector, 2025, in %



Source: Online Survey «Assessment of the Open Data Market in Ukraine»

For companies working with AI, machine learning and automated risk analytics, open data is a system-forming resource. It is access to state registers — the register of court decisions, transport, NSDC sanctions lists, macroeconomic indicators of the NBU and statistical data of the State Statistics Service — that forms the information base for modelling behavioural patterns, assessing credit and legal risks, underwriting, scoring and detecting fraud. In the financial sector, insurance, corporate security and legal analytics, these data determine the accuracy of models and the reliability of decision-making algorithms.

Lack of or limited access to this data directly impacts the quality and sustainability of AI solutions. When key government registers are unavailable or not updated regularly, model accuracy declines, manual checks increase, operations slow down, and compliance and risk analysis costs rise. What used to take seconds in automated mode becomes a lengthy process involving a significantly larger number of specialists. Thus, an open data infrastructure directly impacts operational efficiency and the market's ability to scale digital services.

The value of open data for the AI segment goes beyond instrumental use: it enables the development of sustainable decision-making models, product development, and the integration of automated processes into companies' business logic. In this context, stable access, regular updates, and standardised data formats are not only technological but also economic factors that affect innovation levels and the industry's overall competitiveness.

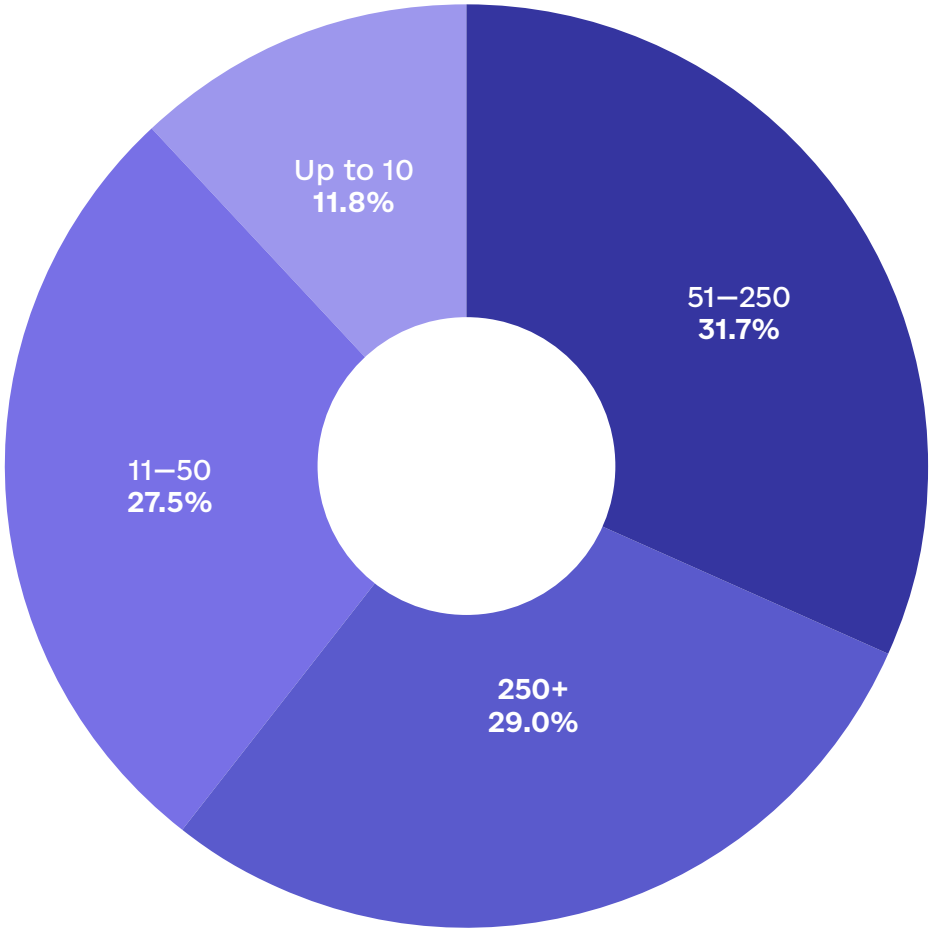
Sectoral analysis by enterprise size

Based on the IER New Monthly Enterprise Survey results, it can be seen that open data is used by companies of different sizes, which creates an additional sectoral cross-section of its use. The largest share is made up of medium-sized companies from 51 to 250 employees — 31.7%, which actively use open data in their services and business models.

At the same time, large companies with more than 250 employees account for 29% of respondents, indicating that large-scale business structures integrate open data into their activities. A significant share also falls on small companies (11-50 employees) — 27.5%, as well as micro-companies with up to 10 people — 11.8%.

Regardless of size, companies confirm that open data has become an essential resource in today's business environment (see Chart 7).

Chart 7. Size of companies/organisations using open data, 2025, in %



Source: Online Survey «Assessment of the Open Data Market in Ukraine» and IER New Monthly Enterprise Survey, September 2025

The results of the IER New Monthly Enterprise Survey demonstrate a clear trend towards an expanding role for open data across most sectors of the Ukrainian economy. Relative indicators were used in the analysis: within each industry, all surveyed enterprises were included. That allows us to estimate the share of businesses in individual economic sectors that systematically integrate open data into their own management, analytics or product development processes.

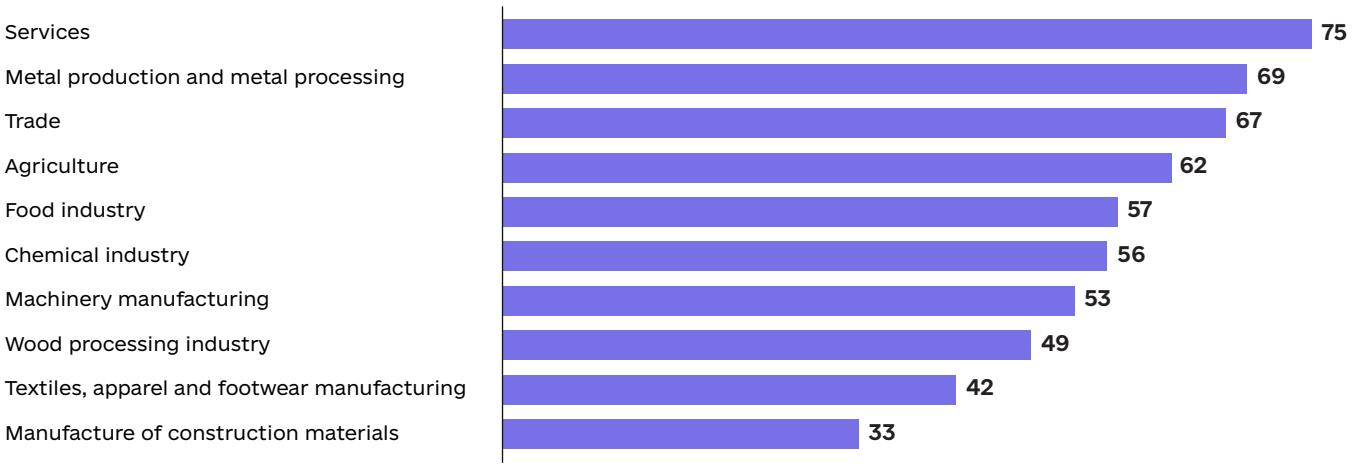
The highest rates of open data use in business processes are recorded in the services sector (75%), reflecting its greater flexibility and rapid response to digital innovations. In this field, open data is often used for analytics of client markets, monitoring public procurement through Prozorro, checking counterparties, and forming competitive advantages. Metal production and metal processing (69%) also demonstrate a high level of open data use, primarily for monitoring external markets, price conditions, and import-export flows, which is critically important for enterprises in this sector amid global competition.

Relatively high values are observed in trade (67%) and agriculture (62%), where open data becomes the basis for making management decisions — from assessing supply and demand to analysing logistics costs or land resources. In the food (57%) and chemical industries (56%), the use of open data is more widespread, particularly for quality control, product origin traceability, and compliance with regulatory requirements.

At the same time, machinery manufacturing (53%) and the wood processing industry (49%) demonstrate moderate levels of open data use, which may be due to the dominance of traditional production approaches and lower levels of process digitalisation. The lowest share is observed in textile, apparel, and footwear manufacturing (42%) and construction materials production (33%), where open data is still primarily used for marketing and supply tasks but has not yet become part of strategic planning.

Overall, the results show that the level of open data integration directly correlates with the technological maturity of sectors: the more enterprises are involved in the digital economy, the more actively they use open data to increase efficiency, transparency, and competitiveness (see Chart 8).

Chart 8. Sectoral use of open data by enterprises, in %



Source: IER New Monthly Enterprise Survey, September 2025

Open data categories

According to the results of the combined IER New Monthly Enterprise Surveyand the Online Survey, it turned out that respondents most often use information on public procurement (62.9%), meaning work with such services as Prozorro, BI-Prozorro, Monitoring of costs for construction and repair of roads, in which some of the data is provided in the format of open sets, and some — as public information, available through platform interfaces. Ukrainian legislation data (58%) is also popular, because respondents usually receive them not from the open data portal, but through the VRU database or commercial legal systems — in fact, we are talking about access to regulatory acts, but respondents usually receive them not from the open data portal, but through the VRU database or commercial legal systems, that is, we are talking about access to regulatory acts, but users do not always distinguish between such sources and sets of open data.

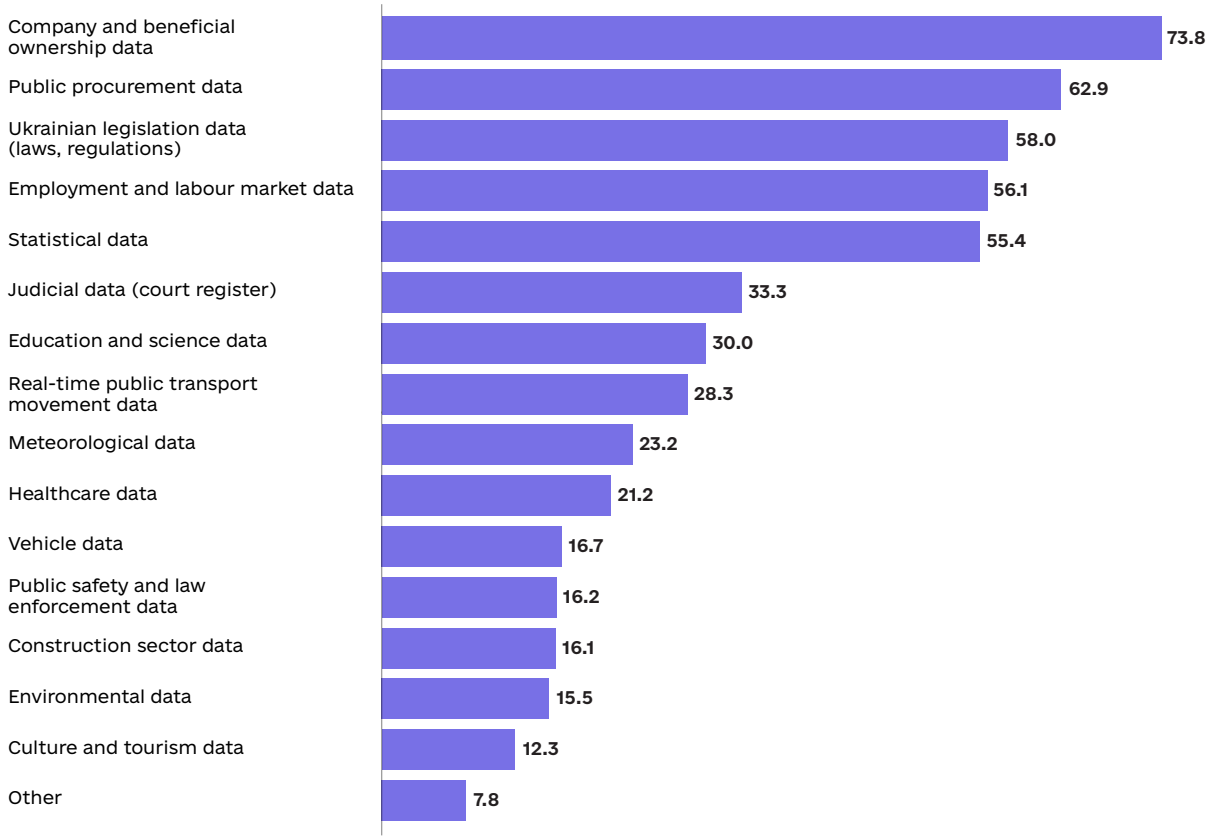
Employment and labour market data (56.1%) primarily cover aggregated analytics from labour market services. All of these data categories are used not only to increase transparency but also to analyse the market situation, assess demand, model economic activity, and make business decisions.

Statistical data (55.4%) and judicial data (33.3%) also play an important role in analysing economic trends and legal security. Data in the fields of education and science (30%) and real-time public transport movement data (28.3%) indicate an expansion of the practical use of open data beyond business — into social and urban services.

Less common but still important are meteorological data (23.2%), healthcare data (21.2%), vehicle data (16.7%), public safety and law enforcement data (16.2%), construction data (16.1%), environmental data (15.5%), and culture and tourism data (12.3%). The “other” category (7.8%) covers niche or specialised data types.

Overall, the results show that open data in Ukraine is actively used in areas where transparency of financial processes, legal certainty and regular analytics are critical. The most active sectors are the financial and banking sectors, as well as industries related to public finance control, legal services, labour market analytics and urban governance (see Chart 9).

Chart 9. Categories of open data used by respondents, 2025, in %



Source: Online Survey «Assessment of the Open Data Market in Ukraine», Monthly Survey of Enterprises, September 2025

Sources of government data use

The results of the Online Survey and Monthly Survey identified which open data sources Ukrainian companies use and how regularly. The data obtained demonstrate a clear hierarchy of source popularity, based on ease of access, dataset relevance, and the ability to integrate data into business processes.

Respondents most often turn to local government open data portals (54%), the Unified State Open Data Web Portal (47%), and the State Statistics Service of Ukraine website (44%). These resources serve as the main access points to public information and open data sets (where available in the appropriate format). They are used to monitor economic activity, budget indicators, and regulatory changes.

A significant role is also played by the resources respondents use to access public information: the Open Data Portal of the Verkhovna Rada of Ukraine (38%) for working with legislative acts and draft laws, as well as the E-Data system, Prozorro, and Prozorro.Sales and a wide array of public information through the interfaces of their platforms. These services are actively used by businesses to monitor public finances, analyse costs, participate in procurement and auctions, and track economic activity.

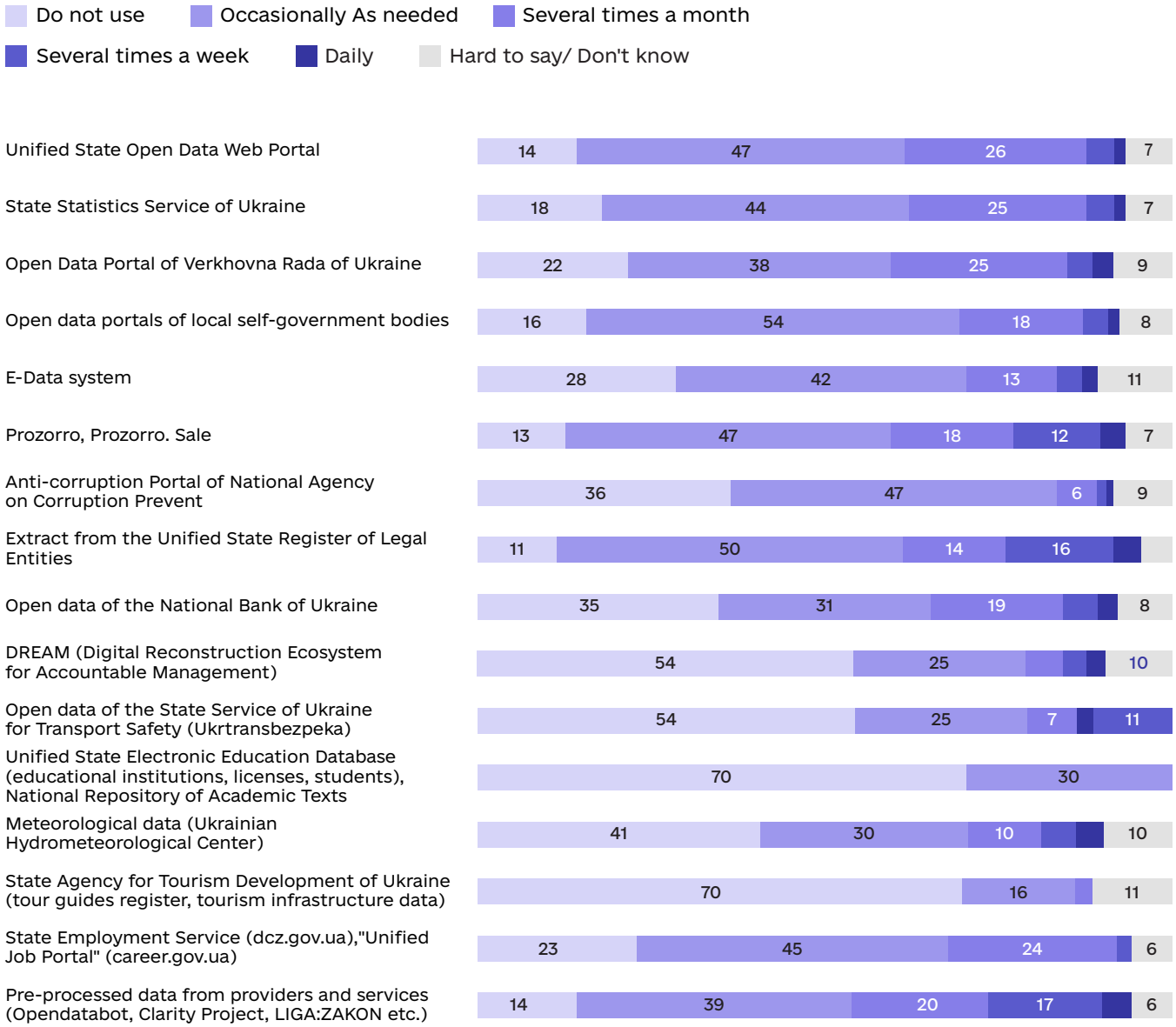
The highest frequency of regular use — weekly or daily — is observed in services that pre-process data from providers and services (YouControl, Opendatabot, Clarity Project, LIGA:ZAKON, etc.).

Such platforms aggregate information from government registers and provide it in a ready-to-use format, significantly reducing the time required for analytics. In total, 39% of companies use these services at least several times a month, indicating a trend toward businesses moving from “raw” government data to commercial solutions based on open data.

Less popular are the registers of education, tourism, meteorological data or DREAM. Their data is used by no more than a third of enterprises, and most use it sporadically, only when necessary. That is primarily due to the narrow range of areas in which such data have practical significance.

Overall, the results confirm that open data has already become an essential element of Ukrainian enterprises’ economic activity, but its use is mainly focused on universal, most convenient government portals. Further development of the open data ecosystem requires greater attention to industry registers, data standardisation, and their integration into business processes (see Chart 10).

Chart 10. Sources and frequency of open data use, 2025, in %



Source: Online Survey «Assessment of the Open Data Market in Ukraine», Monthly Survey of Enterprises, September 2025

Thus, a comparison of the results of the Online Survey and the Monthly Survey demonstrates a stable demand for financial data, statistical data and information on public procurement, which have the highest practical value for business, the state and society. The Online Survey demonstrates a broader, socially oriented use of data for anti-corruption, ecology, education, and reconstruction. In contrast, the Monthly Survey results reflect a higher level of integration of open data into commercial processes, primarily in the services, trade, agricultural and manufacturing sectors. In both cases, the key factors demanded are data quality, update regularity, and format convenience, which determine their economic value and practical impact.

Number of users

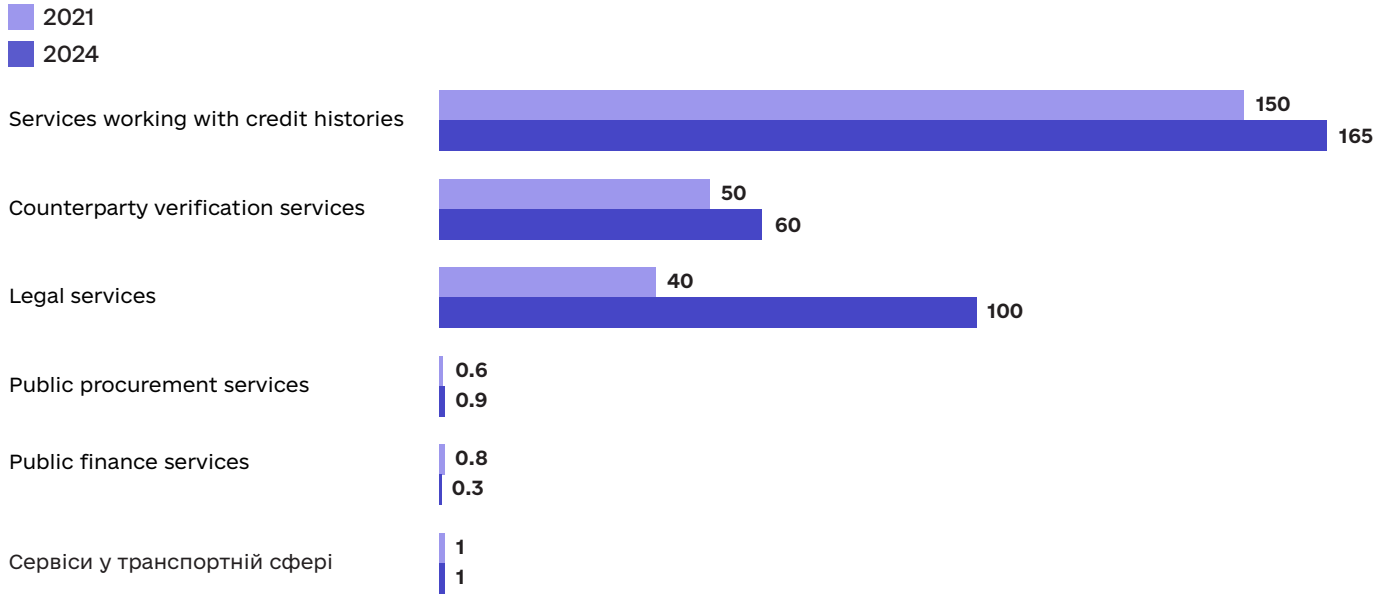
According to interviews with market participants, most Ukrainian services based on open data show increased user numbers or requests, though some areas show declines or stable trends.

User growth is observed in large-scale services focused on business and analytics. Companies working with credit histories and risk analysis (for example, Ukrainian Credit Bureau) recorded an increase in the number of requests by more than 10% (from 150 million requests in 2021 to over 165 million in 2024). Similar trends are evident in the field of business analytics, where services focused on checking counterparties and monitoring companies (such as YouControl) continue to gain popularity. The growth in requests in this area exceeds 20% (from 50 million in 2021 to over 60 million in 2024). The legal and analytical direction, which provides access to state registers and enables automated search for legal information (Opendatabot), also shows high levels of dynamism. In such systems, the number of user requests has doubled in some places (from 40 million to 100 million over the same period). Interest in platforms that support transparency in public procurement (for example, the Clarity Project) is also increasing. The number of their users increased by approximately 50% (from 600,000 to 900,000) in 2021—2024.

Among analytical systems working with public finance and budget data, user activity has more than halved (from 80 thousand in 2021 to 30 thousand in 2024). This trend is likely due to the partial closure of certain financial sets, reduced budget transparency under wartime conditions, and a shift in user attention to other procurement- and risk-analysis-related data.

In the transport and medical sectors, the dynamics remain stable: services that provide data on routes, logistics, or the control of medicines maintain a steady level of user activity. The number of users is estimated from views, calculated in millions per year. For some new projects, key data is missing, making it difficult to assess their progress (see Chart 11).

Chart 11. Number of requests, according to data for the company's products/ services in 2021, 2024, 2025, in millions



Source: interviews with companies working with open data

The impact of open data on IT projects

Based on interviews with market participants, it can be concluded that open data plays a vital role in many IT projects. However, not all of them work specifically with open data sets in the technical sense. The group of services for which open data is the core of the business model includes products that are entirely dependent on data on legal entities, public funds, procurement, financial reporting, and sanctions, for example, services for checking counterparties, risk analytics, monitoring public expenditure, or procurement analysis. In such cases, the share of open data use actually reaches 100%, and without access to them, the product loses its practical meaning. In other IT projects, open data plays a supporting role — as an additional source of analytics, information verification or strengthening the main functionality — but remains vital for the reliability and scalability of services.

Based on interviews with banks, insurance companies, and corporate security companies, it can be concluded that open data has a systemic impact on IT projects in the financial and legal sectors, as they ensure automation, scalability, and trust in digital services.

Respondents noted that open data has become a critical element not only for compliance and customer verification but also for developing technological solutions that integrate APIs, employ scoring algorithms, model risk, and monitor financial activity. In the banking segment, such data accounts for 80—85% of the strategic value of digital services, enabling them to build their own ecosystems based on continuous access to state and aggregated sources. In insurance companies, open data accounts for 20—25% of operations, serving as the basis for underwriting, pricing, risk assessment, and quick online policy sales.

According to the interview results, legal and security services integrate state electronic registers into their systems, but not all of them are open data. That primarily concerns the Unified State Register of Court Decisions, the Unified State Register (access via commercial API), the Register of Vehicles of the Ministry of Internal Affairs (technical characteristics without personal data), as well as the sanction lists of the National Security and Defence Council and the State Service for Financial Monitoring. These registers are used to track legal proceedings, changes in the ownership structure, identify risks of raider actions and assess the integrity of counterparties. According to respondents, the share of such data in the daily operations of legal and security services is approximately 20—25%. In contrast, open data sets (e.g., data on public funds or licenses) serve a supporting role, supplementing the primary sources of information.

Respondents emphasize that the basis for ML solutions (machine learning modules for scoring, compliance, risk detection and automated and checks of counterparties) are state registers and large arrays of transactional and reference information: a register of court decisions for assessing judicial risks, registers of the Ministry of Internal Affairs on vehicles, sanction lists of the National Security and Defense Council and the State Service for Financial Monitoring, statistical and macroeconomic data of the National Bank and the State Statistics Service, as well as data on public procurement and treasury transactions. Based on these sets, companies build internal machine-learning APIs that identify customer behavioural patterns, predict the probability of risk events, and simulate credit, legal, and compliance scenarios. That reduces manual checks, shortens transaction processing times, and makes IT products more resilient to regulatory requirements and scaling.

In general, respondents agree that open data forms the basis for the digital transformation of financial and legal services — from bank scoring to insurance and compliance systems. Their integration ensures the transparency, efficiency, and competitiveness of IT products, and any restriction on access immediately reduces their efficiency and innovative potential. An example is the lack of USR open data from 2022, which has complicated automated checks and forced companies to switch to less convenient commercial channels to obtain information.

Open data provides enhanced capabilities of IT products:

- ➔ allow for automatic verification of counterparties and transactions, which increases user trust;
- ➔ provide market analytics and a competitive environment that is impossible without access to machine-readable arrays;
- ➔ create the possibility of integration with other systems via API, which increases the speed of information processing;
- ➔ provide a basis for applying AI and machine learning to uncover patterns in large datasets.

The economic effect of open data is twofold: it simultaneously creates significant opportunities for service development but also carries risks in the event of access restrictions. Thus, services built on them demonstrate high scalability, rapid product launches, and the ability to attract investment due to transparency and low transaction costs. For some companies, open data enabled them to offset revenue declines in the first months of the war and return to financial stability by adapting their products to new demand, particularly in counterparty verification services, risk analysis, sanctions monitoring, and related areas. But at the same time, restricting access to data leads to service halts or reductions in functionality, complicates monetisation, and reduces competitiveness. As shown above, the loss of access to key registers, for example, the USR, tax debt registers or a full array of court decisions immediately reduces the market attractiveness of products and directly affects revenues.

The focus group results confirmed that the impact of open data on IT projects goes far beyond technical convenience — it determines the architecture of the digital economy, sets standards for information exchange and creates conditions for the formation of entire products and market niches. Open data has become the basis for the emergence of new services (from analytical platforms to ML solutions), ensured interaction between public and private systems and formed an ecosystem in which digital products can scale, compete and integrate into international markets. Their availability does not just simplify development — it determines the direction of innovation, the market model and the potential for economic growth.

Focus group participants noted that open data has become a catalyst for technological innovation, enabling the development of a new generation of products, from risk analysis systems to integration platforms. Open APIs and datasets provide the technical foundation for IT companies to build commercial solutions. Thus, YouControl created a module for a comprehensive assessment of companies' ESG risks, Opendatabot developed services for monitoring legal events and business threats, Vkursi developed tools for corporate analysis, and Clarity Project developed procurement control solutions. All of these products rely on open data as a basic resource, enabling deep analytics, risk prediction, automated monitoring, and integration with international information systems. That makes open data not just a source of information, but an architectural principle that defines the logic of the digital economy.

The focus group results also showed that open data helps to strengthen trust in digital products. Automatic partner verification and monitoring of government procurement and business relationships enhance service reliability and expand their client base. That is especially important for Ukrainian companies seeking to enter international markets and attract investments.

Respondents also highlighted the impact of open data on improving IT development efficiency. Open datasets simplify testing of artificial intelligence algorithms, reduce the cost of creating training samples, and speed up the development process. Thus, open data not only ensures the stability of business models but also serves as the basis for technological breakthroughs and the competitive advantage of Ukrainian IT companies.

In addition, open data is an essential component of IT projects, determining both their functionality and financial viability. For some companies, they form the basis of the product, ensuring transparency, trust and competitiveness. Closing even part of the sets immediately affects profits and narrows the functionality, while systemic openness and high-quality digitalisation create conditions for market growth and investment attraction.

The impact of a full-scale invasion on the market

Following the start of the full-scale invasion in 2022, Ukraine's open data market found itself in crisis. Before the full-scale invasion, it was developing rapidly, offering a wide range of services across business analytics, real estate, transport, ecology, and anti-corruption monitoring. However, the introduced restrictions on access to several critical state registers, in particular data on land plots, the financial condition of enterprises and information traditionally used to verify counterparties, significantly changed the capabilities of these services. Some projects were forced to temporarily suspend operations or rebuild their business models to operate without key sources that previously provided full-fledged analytics and automated data verification.

In addition to restrictions on access to individual state registers, the six-month suspension of the data.gov.ua portal also significantly impacted the open data market, leading to the suspension of updates to thousands of datasets and complicating the functioning of services that relied on regular data updates. Although regulatory acts did not restrict access to the portal itself, the decision to temporarily suspend its operation was made within the framework of the general public policy of strengthening information security during martial law. Given the unique context of Ukraine, which, having the most extensive territory among European countries, continues to develop the field of open data under martial law, the need for regulatory regulation of a balanced approach to the disclosure of public information, which would take into account the interests of national security and transparency, has been acute since the beginning of the full-scale invasion.

On March 12, 2022, Resolution No. 263 of the Cabinet of Ministers of Ukraine "Some Issues of Ensuring the Functioning of Information and Communication Systems, Electronic Communication Systems, and Public Electronic Registers under Martial Law" was adopted, which, in particular, allowed the state to restrict access to information and communication systems and registers for the period of martial law to protect the information processed in them.

However, the aforementioned Resolution No. 263 proved insufficient to protect information on legal entities that produce military/defence products, perform defence work, etc., which is available in registers and open data sets.

For a long time, the state, weapons manufacturers, businesses, the public, and activists have been working together to develop an optimal solution to maintain transparency in Ukraine, even during martial law, without harming national security interests.

In August 2025, two laws were adopted — No. 4576 and No. 4577. Law 4576 provides for restrictions on access to certain information in public electronic registers (in particular, the SRPR and Ukrainian National Office for Intellectual Property and Innovations registers on intellectual property), and also provides the opportunity for the Cabinet of Ministers to approve, by acts, the procedure for restricting access to registers in terms of information (data) on legal entities, as well as other information related to ensuring national security and defense. At the same time, it obliges the Ministry of Justice to restore access to the USR in the form of open data by January 18, 2026, to implement which the Ministry of Justice adopted orders dated November 18, 2025 No. 3168/5 "On the restoration of the publication of information from the Unified State Register of Legal Entities, Individual Entrepreneurs and Public Organizations in the form of open data" and dated December 4, 2025 No. 3367/5 "On Approval of Changes to the List of Information Subject to Publication in the Form of Open Data, Managed by the Ministry of Justice of Ukraine".

Law No. 4577 created the Defence City legal regime, with special tax and legal incentives for defence industry enterprises to develop weapons and technology production and to attract investment. It also allows some Defence City residents to avoid publishing financial statements.

In October 2025, the Cabinet of Ministers of Ukraine adopted Resolution No. 1257 "On Approval of the Procedure for Temporary Restriction of Access to Information on Enterprises, Institutions and Organizations in the Field of the Defence-Industrial Complex", the purpose of which

is to protect information about entities of the defence-industrial complex in services that display information from state registers.

Despite the aforementioned regulatory initiatives having only partially restricted access to registry information, society remains divided into two camps: those who believe the closure is insufficient, and those who think it is excessive.

However, the fact remains undeniable. Despite the complex challenges, Ukraine is balancing between protecting national security interests and transparency. Taken together, these decisions were not aimed at curtailing the policy of openness, but at adapting it to wartime conditions by differentiating access, reviewing the scope of disclosure, and ensuring a balance between transparency and security.

Although some data were reopened from the second half of 2022, the return to the pre-war level of openness did not occur. In wartime conditions, the likelihood of new waves of temporary access restrictions remains. At the same time, to support the market and adapt services, international organisations have launched grant competitions and educational programs to develop products based on open data and to train businesses to work with them in new conditions.

Services that depended solely on state land cadastre data have entirely disappeared. Without this data, it became impossible to track construction processes and changes in the ownership structure.

A large group of projects remained, but they significantly lost functionality:

- ➔ legal services have suffered due to restrictions on access to the USR, tax debt, etc.;
- ➔ financial and credit services were left without most reference data, which made it impossible to check counterparties or maintain credit histories;
- ➔ anti-corruption initiatives have lost the ability to fully track changes in the ownership of officials, as the closure of registers, for example, of ownership structures, transactions of public funds, and the register of declarations, has deprived them of their basic transparency tool;
- ➔ transport services found that local data was either not updated or published in formats unsuitable for machine processing.

Some data was reopened starting in the second half of 2022, in particular, the register of court decisions, certain sets of the Ministry of Internal Affairs on vehicles, some Prozorro data, and updated statistical sets, which allowed the services to resume their work partially, but full accessibility to the level before February 2022 is not yet available.

Despite the limitations, many players were able to adapt:

- ➔ Some services have moved away from using open data and are now using archival data or making samples on request through the Administrative Service Centre.
- ➔ Some initiatives have developed their own collection sources (for example, environmental sensors, which have partially replaced official kits).
- ➔ Transport projects began working with data that remained open (for example, information on transportation licenses or Prozorro tenders), or limited functionality to the regional level only.

It should also be noted that the situation with open data depends not only on the business's needs but also on the providers capabilities and limitations. After 2022, public authorities found themselves in different levels of risk and regulatory obligations (for example, in some cases, providers, citing martial law, began fulfilling their publication obligations late). Some providers have continued publishing sets that do not pose security threats, while others have been forced to restrict access or temporarily stop publishing some categories of information.

In several areas, a mixed mode of disclosure has emerged, in which data remains available, but individual elements are removed, aggregated, or provided with limited detail. For example, when publishing data on public procurement, specific fields containing sensitive information, such as geolocation data or personally identifiable information, were temporarily removed or summarised. Similar practices were also noted by anti-corruption organisations in working with declarations: the NACP register remained public, but some data was removed from public access, which made it difficult to thoroughly analyse changes in income, property, or corporate participation of officials. Such restrictions maintain a minimum level of transparency but also reduce the datasets' analytical value and create additional barriers for researchers and the public sector. Thus, the policy of access to public data is determined by the balance between transparency requirements, national security, and the resource capabilities of government bodies, which affects both the providers and users of these data.

In addition, the following approaches of providers to the publication of open data during martial law can be distinguished:

- Some bodies, for example, in the field of finance and banking regulation, continued to publish data that was not critical for security (exchange rates, macroeconomic statistics);
- Others (in the field of geospatial data) have shut down publications entirely, citing security risks;
- In the fields of public procurement, treasury services, and the lease of state and municipal property, a hybrid regime emerged: data was published, but sensitive fields (place of supply, defence contracts) were removed, for example, in Prozorro and Prozorro.Sales, information on the place of supply of goods, data on defence procurement and details of participants in individual procedures were temporarily hidden; in Spending.gov.ua, some treasury transactions were published with a delay or without detailing the recipients; in the State Property Fund, specific fields regarding leased objects were submitted in abbreviated form.

It is also worth noting that, before the full-scale invasion, Ukraine actively participated in developing the European open data ecosystem, particularly by publishing datasets on the European Open Data Portal (formerly the European Data Portal).

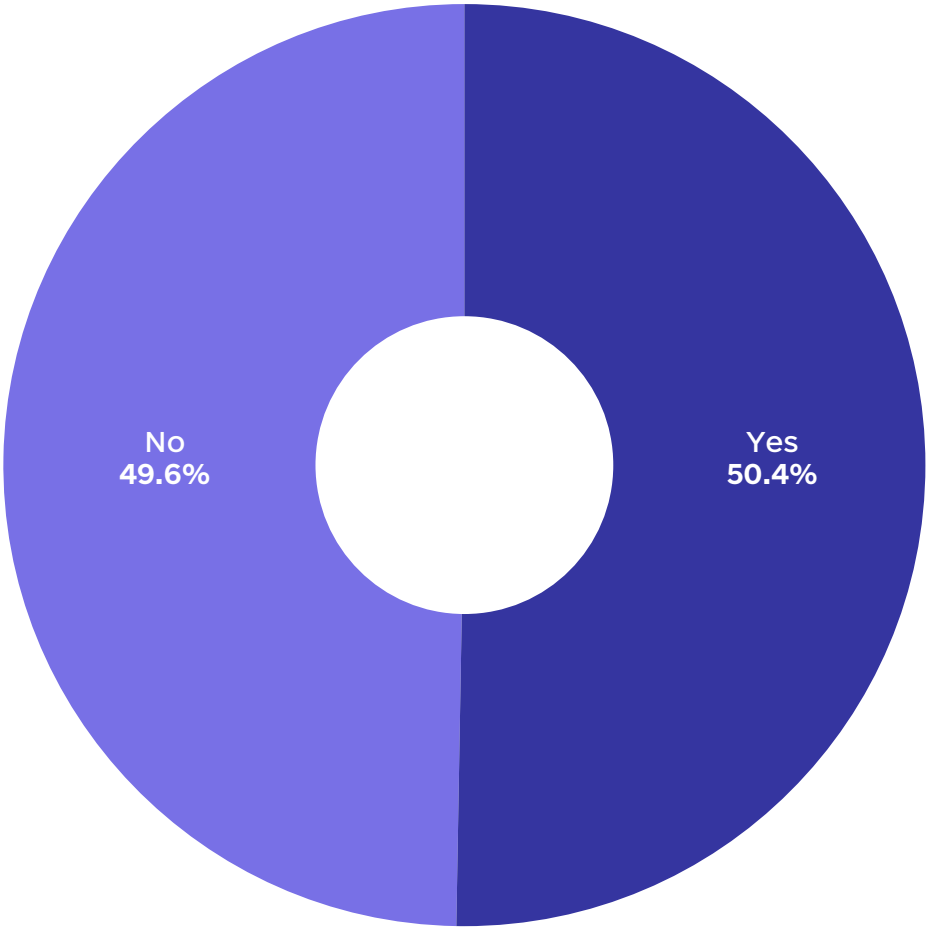
The publication of data on companies' ownership structures was also particularly important. By 2022, information from the USR would be available both at the national level and in aggregated form on international transparency platforms, in particular on the Open Ownership portal. At that time, Ukraine was considered one of the key examples of implementing a policy of transparency of corporate and beneficial ownership structures in Europe and the world.

After the introduction of restrictions on access to several state registers in 2022, primarily the USR, which contains, among other things, information on ultimate beneficial owners, the publication of data on owners and company structures on international and European platforms was suspended. This significantly reduced the availability of information on legal entities, their ownership structures and control, for Ukrainian and foreign users, including think tanks, investigative journalists, businesses, and international partners.

At the same time, at the level of political commitments, Ukraine confirmed its intention to restore openness in line with EU requirements on corporate ownership transparency and anti-money laundering, which is also crucial in the context of the EU accession negotiation process.

In an online survey conducted in September and early October 2025, respondents were asked: "Did the closure of some state registers and restrictions on access to data after the full-scale Russian invasion affect your work?" The answers were distributed almost equally: 50.4% of participants noted that the restrictions significantly affected their activities, while 49.6% did not experience significant changes. This result demonstrates that for half of the respondents, access to state data is a critical element of business processes: their closure led to a halt or reduction in work. The rest were able to adapt, maintaining their operations by using open or alternative data sources (see Chart 12).

Chart 12. "Did the closure of some state registers and restrictions on access to data after the full-scale Russian invasion affect your work?" 2025, in %



Source: Online Survey «Assessment of the Open Data Market in Ukraine»

Respondents in the Online Survey were most distressed by the closure of data critical for verifying the business environment, analysing economic processes, and ensuring transparency. Among them, first of all, they named the USR and other registers of the Ministry of Justice, the land cadastre and related services, as well as demographic and socio-economic statistics of the State Statistics Service. Significant difficulties arose due to restrictions on access to data on owners and beneficiaries, property rights, debtors, financial and accounting reports, and the energy sector (production and consumption of electricity, gas, coal, and "green" generation). In addition, the closure or delay of data from customs, tax services, and geographic information systems was mentioned. In general, respondents emphasised that these data blocks directly affect the ability to conduct business, verify counterparties, perform analytics, and maintain public trust in government processes.

The closure of access to public registers and open data has caused significant indirect economic losses for users of open data: businesses, citizens, and authorities have lost access to critical information for decision-making, thereby increasing information asymmetry, raising the costs of verifying counterparties, and exacerbating corruption risks. According to estimates by YouControl and KSE, as of April 2023, daily losses due to the closure of the USR and other key state registers amounted to over UAH 90 million, and, over 13 months, exceeded UAH 36 billion, equivalent to 0.68–1.49% of GDP. That led to decreased market transparency, a drop in investor confidence, and a slowdown in innovation.

As a result of interviews with companies, public organizations, open data services, providers and experts in this field, it was found that the closure of a significant part of key state registers and restrictions on access to individual open data sets in 2022—2023 and the absence of this data as of December 2025 led to significant indirect economic losses for open data users. These losses can be conditionally divided into three groups: direct, associated with additional operating costs for businesses (for example, an increase in the cost of inspections due to the lack of automated analysis of open sources); indirect, due to the growth of information asymmetry and a decrease in the accuracy of analytics; as well as long-term, manifested in a reduction of investment attractiveness, suspension of the development of innovations and a slowdown in the emergence of new services based on open data.

That was reflected in the growth of financial costs for businesses. Companies that depend on USR data felt this most. After its closure, and with only paid/authorised API access preserved, the cost of products and operating expenses for supporting services increased. Even though larger IT companies continued to use the USR paid API until 2022, for small and medium-sized companies, the increase in tariffs and the need for additional contracts effectively closed the possibility of systematic use of this data. That reduced their competitiveness, slowed down product development, and limited access to basic verification and analytics tools.

In addition, the full-scale war became a key factor in restricting access to some state registers and information resources. For security reasons and to protect critical infrastructure, some data was temporarily restricted or published in an abbreviated form. That led to an increase in time and labour costs for analytics: journalists, researchers and public organisations are now forced to spend more effort on obtaining, verifying and structuring information that was previously available in an automated mode. As a result, the efficiency of public research and monitoring has deteriorated, and the analysis of social, environmental and economic processes has become more fragmented and less predictable in terms of the quality of the source data.

There has also been a decline in transparency in the digital services market and in investor confidence. The lack of access to key open data sets (e.g., on company ownership and tax debts) complicates counterparties' verification, limits due diligence opportunities, reduces Ukraine's attractiveness to investors, and creates risks of fraudulent schemes.

According to most respondents, data restrictions have not actually increased security: while researchers and journalists have lost analysis tools, a significant part of the information has remained available through old datasets (published before 2022 and not deleted), open sources, or even the "black market." As a result, this creates an asymmetry of access: legal users suffer losses, while informal channels remain active.

Representatives of the banking sector emphasised that the closure of tax and business registers was the most noticeable limitation. That complicated client identification, slowed scoring processes, and led to a temporary decrease in lending volumes. Banks were forced to rebuild internal algorithms, either by collecting information manually or by using the APIs of private platforms. Despite this, they believe that the role of open data in the banking system remains strategic, as it enables rapid credit decision-making and the development of the open banking system.

Representatives of insurance companies noted that restrictions on access to the Unified State Register and State Tax Service data after 2022 led to delays in verifying counterparties and beneficiaries, complicating underwriting and financial monitoring. At the same time, respondents emphasised that it was open data, in particular sets of vehicles, court decisions, NBU indicators, statistical data and information from Prozorro, that played a key role in maintaining market stability: they ensured the automation of risk assessment, increased the transparency of operations and allowed policyholders to maintain the quality of services even under military restrictions. According to market participants, Ukrainian open data is distinguished by a high level of detail, the presence of unified identifiers and the ability to combine information from different sources, which makes it more informative than in many EU countries. The main challenge after 2022 has been the instability of updating some sets and their uneven availability, which is why the market needs guarantees of publication continuity and the unification of technical standards for the long-term use of open data.

Representatives of the corporate security sector noted that the full-scale war has increased the demand for risk monitoring and open-source analytics. However, the reduction in access to open datasets has shifted the emphasis: companies have become more reliant on OSINT tools, social networks, and Human Intelligence. At the same time, the value of open data as a resource for early threat warning, business reputation assessment, and business continuity support has increased.

The focus group results confirmed that the full-scale war was a turning point for Ukraine's open data market. The closure of registers, the introduction of access restrictions, and staff losses among providers led to a sharp reduction in the volume of publications and data updates. Participants emphasised that the full-scale war not only led to the suspension of the work of individual services, but also shifted the state's priorities in the data sphere: tasks related to ensuring national security, anti-corruption control, and recovery planning became the top priorities. At the same time, it became an impetus for the market's structural transformation: companies began investing in their own data collection and creating internal analytical systems to maintain access to critical information. Thus, the war radically changed the conditions for working with data and forced market participants to adapt to the new reality. But the long-term consequences for openness policy still require further analysis.

Thus, the recorded economic losses were characteristic, first of all, in the first months after the start of the full-scale invasion in 2022, when the mass closure of registers and irregularity of updates sharply increased the costs of business and the public sector, weakened analytical capacity, complicated the verification of counterparties and led to a temporary outflow of investors. Even though in 2023—2024 the situation partially stabilised, some sets were reopened, and updates resumed, the availability regime still differs from the pre-war level. It has established a new paradigm of openness, within which a full return to the state as it was before February 2022 is not expected. That continues to affect the competitiveness of Ukraine's digital economy and requires further alignment of systemic openness policies.

Assessment of challenges for market development

The open data market has significant potential, but its development is hampered by several systemic issues highlighted by experts and businesses during the interviews. One of the key ones is the quality and formats of publications: some sets are not published in machine-readable formats (e.g., PDFs, images, web pages), which complicates automated loading, processing, and integration. In some cases, the data contains structural errors (e.g., different names for the same fields, missing object identifiers, duplicate records) or is not accompanied by complete metadata, making it impossible to interpret its content accurately.

Untimely and irregular updates significantly affect data usability: sets can be released at different frequencies, temporarily suspended, or updated with significant delays, leading to a loss of historical integrity. That is especially problematic for building analytical models, risk assessment and long-term planning. An additional challenge is that approaches to updating sets on the portal are often incorrect or inconsistent, and the portal itself faces technical limitations and limited automation, leaving most manager processes manual and increasing the likelihood of errors and delays.

The situation is complicated by incomplete metadata and dataset schemas, which make it impossible to integrate, verify, and reuse data efficiently. Individual open data providers may also fail to publish data due to non-compliance with legal requirements, creating additional gaps in the ecosystem.

An equally important problem remains the digitisation and preservation of historical data: a significant part of such arrays is either inaccessible or exists in fragmented form, limiting the ability to conduct comparative analysis and build long-term series.

Most of the surveyed open data providers emphasise the personnel issue. The work of an open data specialist or information manager is, as a rule, additional work rather than the main component of job duties. There is a lack of specialists with the appropriate level of digital literacy, staff turnover, and an outflow of specialists to the private sector. Experts and companies point to communication barriers with open data providers. The latter are noted for their indifference to work and the absence of a feedback system. As a result, institutional capacity remains low. Current public policy instruments in the field of open data are not effective enough: strategic documents often do not translate into practical implementation, and legal norms are implemented primarily in a formal manner. That creates a situation in which open data providers have no incentives to ensure the stability, quality and completeness of open data sets. Added to this is the problem of restricting access to key registers and open data sets, which limits users' capabilities and creates legal uncertainty.

An equally serious problem is the lack of sustainable funding. A significant part of open data services operate without a stable business model and actually exist thanks to short-term grants or donor initiatives, the duration of which is limited. An additional blow was the reduction of open data support programs, particularly the closure of several USAID initiatives in early 2025, which previously provided key funding for data facilitators, competitions, hackathons, and ecosystem development projects. All this narrows the opportunities for supporting innovative services, slows market development, and creates risks of instability in the medium term.

Respondents from the banking, insurance and corporate security sectors unanimously noted that the main barriers to the development of the open data market remain the instability of access, low-quality datasets, and the lack of unified standards for information exchange between open data providers, businesses and service developers. The closure or restriction of some state registers and open data sets after 2022 (e.g., USR, tax data) has significantly complicated the work of financial institutions and insurance companies that rely on open data for their risk management models.

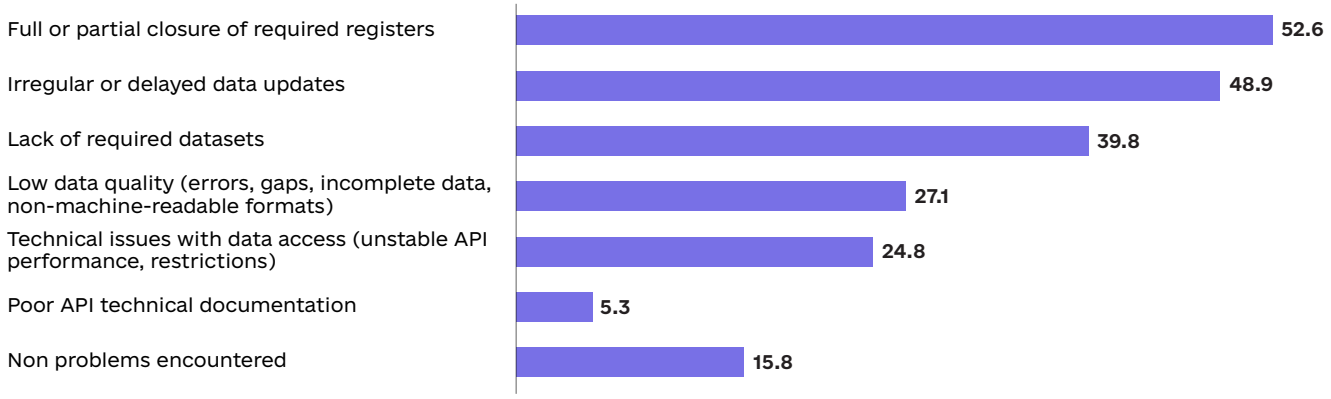
In the absence of complete open data, banks note that the cost of customer verification increases: due to limited access to state registers and the need to use commercial data channels, each lending decision requires significantly more verifications, and the number of rejections is many times higher than the number of successful applications, which increases the cost of scoring. Insurance companies emphasise the shortage of data specialists and the insufficient automation of state IT systems, which complicate data processing and slow down processes.

All respondents note the lack of coordination between state providers. The same data set can be published in different formats or with other structures by a single manager or by several bodies in parallel. In addition, such sets are often duplicated across systems, with varying update frequencies or incomplete filling. As a result, the data is formally available but inconsistent, which complicates its automatic integration, requires additional manual processing, and increases technical costs for the business.

For the corporate security sector, a key problem has been the reduction in the number of state registers available in open data formats and the shift to unofficial channels (social networks, OSINT, Human Intelligence), which increases the risk of disinformation and reduces the accuracy of analytics.

The results of the Online Survey partially confirmed the interview responses. The three most significant problems were the full or partial closure of the required (52.6%), irregular or delayed data updates (48.9%), and the lack of necessary data sets (39.8%). About a third of respondents — 27.1% — emphasised the low data quality (errors, gaps, incomplete data, non-machine-readable formats). In addition, a significant part of the respondents noted technical problems with data access (24.8%) and poor technical documentation for the API (5.3%). At the same time, 15.8% of respondents reported not seeing any significant obstacles to the development of the open data market (see Chart 13).

Chart 13. “What problems do you encounter most often when working with open data in Ukraine?” 2025, in %



Source: Online Survey «Assessment of the Open Data Market in Ukraine»

The focus group results confirmed the above: the key barriers to the development of the open data market remain similar for both users and providers: low data set quality, a lack of data specialists, and weak de facto coordination between government agencies. Data is often published in formats unsuitable for machine processing (PDFs, incomplete or missing metadata, inconsistent structures and formats within the same dataset), without unique identifiers, which complicates API integration and creates duplicate information across different providers. Participants also noted that some data sets are updated irregularly or have not been updated for years, thereby losing their analytical value. This consequence may stem from a staff shortage among government providers . That forms a vicious circle of formal compliance: data is published, but not in a form that allows it to be fully used.

At the same time, in the business and public sectors, the lack of stable funding and the absence of sustainable business models leave most open data services reliant on grant support. That does not ensure long-term sustainability and makes the market vulnerable to external changes. The closure of large donor programs has further weakened the ecosystem’s institutional development.

Prospects for the development of the open data market

The prospects for market development are related to business, innovation and reconstruction. The possibilities for developing open banking, the agricultural and space sectors, creating new analytical tools for businesses, and integrating services for citizens are noted. Companies are already entering European markets with such products, and providers, for example, the NBU and Prozorro, plan to publish more detailed sets and coordinate the development of systems with state and European integration strategies.

The respondents consider the use of artificial intelligence technologies as a promising direction of integration in the field of open data. According to their estimates, AI can automate key stages of data processing: quality control, anomaly detection, moderation, cleaning, preliminary verification, and the formation of structured arrays for further analysis. At the same time, it is emphasised that the use of such technologies requires clear ethical standards, model quality control, and mandatory supervision by data specialists to avoid erroneous decisions and incorrect interpretations of information.

The open data market in Ukraine is in a gradual recovery phase after the 2022 shock. The benefits for transparency, journalistic investigations, and business have already been proven, but further development requires systematisation, public funding, strengthened legislation, and integration with new technologies.

The focus group participants identified several promising areas for developing the open data market: open banking, agricultural and environmental data, and services based on space-monitoring and reconstruction data. In their opinion, the combination of open data with artificial intelligence, machine learning, and geospatial analytics technologies offers the potential for new products and reduced information-processing costs. Among the strategic trends, respondents also noted Ukraine's gradual alignment with European standards for publication and data management. With sustainable financing, the implementation of technical standards, and the training of specialists, the open data market can enter the phase of institutional strengthening and become a driver of the digital economy.

Despite military challenges, the open data market demonstrates high adaptability and potential for further development. Representatives of banking, insurance, and security companies emphasised that Ukraine maintains a leading position in the region in terms of the level of digitalisation of state registers and API accessibility. Open data is gradually becoming a structural component of the digital economy. The process of engaging with the European open data ecosystem is already underway: standards are being harmonised, legislation is being updated, and state registers are being modernised. In the future, these areas may determine the market's further development, regardless of the course of military events.

According to respondents, the main promising areas of market development are:

- ➜ API standardisation and data format unification across all government providers, reducing business integration costs.
- ➜ Complete restoration of access to key registers and open data sets, including tax information and USR in the form of open data.
- ➜ Integration of artificial intelligence for processing large amounts of open data, scoring, risk analytics, and fraud detection — banks and insurance companies are actively developing this area.
- ➜ Training specialists and increasing digital literacy to ensure sustainable demand for open data from both businesses and citizens.
- ➜ Development of "state-business" partnership models that allow creating new services (for example, joint API solutions, automated financial monitoring, analytical panels).

In general, respondents predict that, in the medium term, the open data market may become one of the factors in economic recovery and anti-corruption reforms, since data openness enhances transparency of financial flows, trust between the state and business, and the development of digital services. At the same time, focus group participants emphasised that further progress depends directly on the state's actions. The Ministry of Digital Transformation, as the central body responsible for the formation and implementation of open data policy, is already working on several solutions: restoring access to registers through legislative initiatives, adapting Ukrainian legislation to the requirements of seven EU acts in the field of data (which should be implemented by 2027), developing publication standards, optimizing the management of the data.gov.ua portal, and supporting the work of the communication platform «Data+» for systemic dialogue between providers and the community, initiation of grant acceleration programs for services based on open data for financing ITA projects, etc.

Impact on society

The use of open government data in Ukraine has a systemic social impact, encompassing social, anti-corruption, and environmental dimensions. The results of interviews and focus groups confirm that data has become an infrastructure of trust between the state, business and citizens, providing not only access to information, but also tools for analysis, control and decision-making.

In the social dimension, open data has expanded citizens' opportunities to monitor government bodies' activities and the use of public resources. The Spending.gov.ua service provides access to budget transactions, enabling communities and public organisations to identify overspending and monitor the effectiveness of financial decisions.

The services such as Opendatabot provides access to court decisions, corporate data, enterprise history, and document status, which has become especially important for internally displaced persons and veterans who use these tools for employment and monitoring social benefits.

An additional social effect is the development of environmental and transport services that enable monitoring of pollution, infrastructure quality, and transport safety at the local level.

The educational component was developed through the Ministry of Digital Transformation's regular, large-scale training programs and online courses on the «Diia.Education» platform, which popularise data work and increase the population's digital literacy. For local governments and data providers, training from the Open Data Academy initiative is essential, as it helps improve understanding of the principles of publication and open data quality standards.

Participation in such training programs enhances civil servants' qualifications, thereby improving the quality and completeness of data disclosure. That has a positive impact on society as a whole: the availability of reliable information increases, service stability is ensured, transparency and opportunities for public oversight are strengthened.

Open data users also have access to educational opportunities to develop skills in data management, analysis, and visualisation. In particular, educational series and online courses on the platform «Diia.Education» cover practical aspects of using open data for business, civic engagement, and advocacy. Additionally, training programs such as the School of Data, Open Data Institute, Data.europa Academy and The GovLab, implemented with the participation of the Ministry of Digital Transformation and international donors, as well as international resources, play an important role. Together, such initiatives contribute to the development of basic and applied literacy in open data and expand the public's capacity to use them effectively.

The anti-corruption effect of open data manifests in reducing information asymmetry and preventing abuse in procurement, financial monitoring, the corporate sector, and the control over civil servants' declarations. The Prozorro system ensured transparency in procurement and enabled analysis of bidders based on their contract history, tax debts, or sanction risks, contributing to the identification of unscrupulous suppliers and the formation of a competitive market.

YouControl, Clarity Project, and Opendatabot services combine corporate registers, sanctions lists, and judicial data, allowing journalists and civil society organisations to identify connections between businesses and officials, verify beneficiaries, and document conflicts of interest. Studies of the impact of open data in public procurement and state oversight demonstrate that open data has become a structural element of government accountability, a tool for detecting violations, and a resource that systematically supports transparency across sectors. They are used not only in evidentiary journalism but also in the monitoring practices of civil society organisations, anti-corruption control, risk assessment, and in the work of market entities that require verifying counterparties and analysing the business environment.

The environmental dimension of open data is emerging gradually, but already plays a key role in pollution monitoring, environmental law enforcement, and recovery planning. SaveEcoBot and EcoCity services aggregate open data on enterprise emissions, inspection results, and air and water pollution levels, allowing the public and investors to assess environmental risks and make responsible decisions.

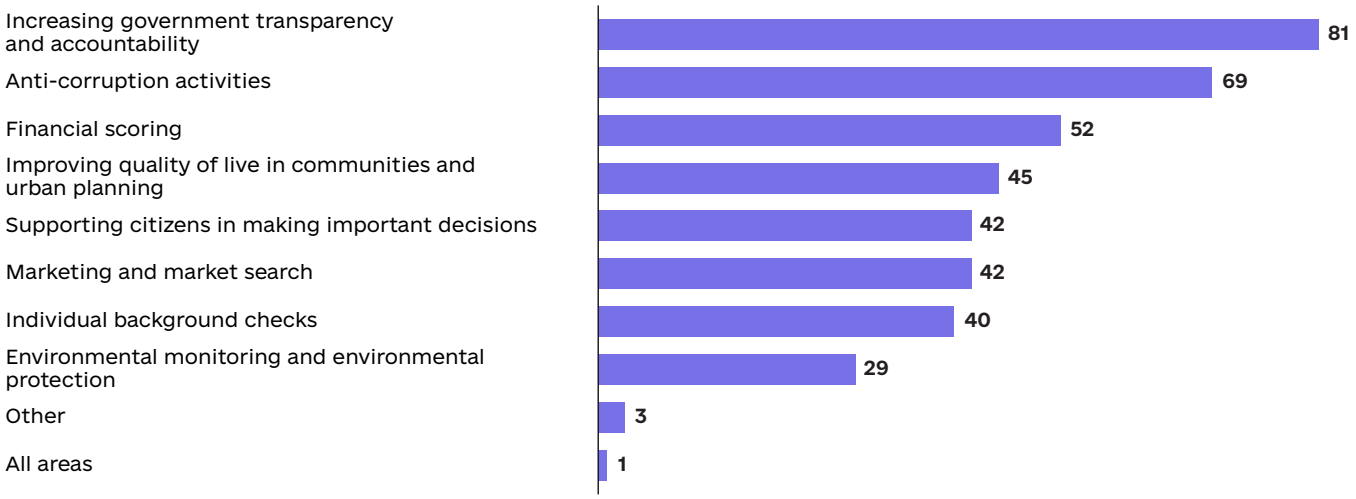
Analysis of open environmental sources and satellite imagery plays a special role, identifying over 700 potentially contaminated areas related to the destruction of industrial facilities, chemical releases or hostilities. This information, although not in the open data category, is critical for reconstruction, as it helps prioritise cleanup areas, avoid development in dangerous places, assess the risks of soil and aquifer contamination, and adjust land and investment project costs. Thus, the data not only documents the environmental consequences of the war but also supports the integration of environmental requirements into long-term planning for the country's reconstruction.

Taken together, these effects demonstrate that open data has evolved from a tool for digitising public services into a foundation for public accountability, public financial control, increased economic efficiency, and environmental safety. Its impact goes beyond the development of the IT market and becomes a basic condition for the formation of a sustainable, transparent, and accountable governance model in Ukraine.

The results of the Online Survey confirm these facts and demonstrate that open data has the greatest social impact by increasing transparency and accountability in government — a view shared by 81% of respondents. A high indicator is also observed in anti-corruption activities (69%), indicating the key role of open data in preventing abuse and strengthening public control. A significant share of respondents (52%) stated that open data affects financial scoring and the verification of counterparties.

Almost half of the survey participants (45%) noted that the use of open data improves the quality of life in communities and urban planning, and 42% see its impact on marketing and market research. In addition, 40% of respondents emphasised the role of open data in individual background checks, and 29% in environmental monitoring and environmental protection. Only 3% of participants noted other areas, and 1% said that data has a complex impact on all areas at once (see Chart 14).

Chart 14. Areas where open data and open data-based products/services have the greatest social impact, 2025



Source: Online Survey «Assessment of the Open Data Market in Ukraine»

Thus, the analysis shows that the most significant social effects of open data are increased transparency, reduced corruption, and strengthened economic trust among actors. At the same time, they play an essential role in the development of local communities, decision-making, business analytics, and environmental control, thereby having a multidimensional impact on society.

Conclusions

Ukraine maintains its position among European leaders in open data. Despite a full-scale war, the country continues to demonstrate stable development of its open data ecosystem. According to the Open Data Maturity 2025 assessment, Ukraine ranks fourth in Europe in terms of open data development. That confirms the sustainability of open data policy and its strategic integration into public administration even in the face of military challenges.

The legislative framework is developed but needs updating, in particular to align with EU norms. The basis of regulatory regulation is the Law «On Access to Public Information» and Resolution No. 835, which establishes the obligation of providers to publish data in a machine-readable format. At the same time, the implementation of Directive (EU) 2019/1024, Regulation (EU) 2016/679 (GDPR) (on the protection of personal data), etc., remains partial. The implementation of these EU regulations is essential, although they do not directly affect the open data legislation, but are an important addition to it. It is necessary to update the provisions on joint data processing, subcontracting and online privacy protection.

The institutional structure of the open data market in Ukraine is relatively established and is based on the interaction of three main groups. The analysis confirms that open data has gone from being a purely transparency tool to a key element of the digital economy.

- ➜ Open data providers are central government bodies, local governments, and state-owned enterprises that create and publish datasets.
- ➜ Open data developers and services are private companies, startups, and projects that create digital products, analytical solutions, and value-added services.
- ➜ Users are businesses, media, public organisations, researchers, and citizens who use open data directly or through services built on it.

The interactions among these groups shape Ukraine's open data ecosystem and determine its sustainability and potential for further development.

The economic potential of the open data market is significant and growing: the core market is UAH 2 billion (USD 50.1 million), and the total market is UAH 26.8 billion (USD 668 million). The sector is gradually moving from an experimental to a mature phase of development, becoming an integral part of the digital economy. Service companies that work with open data account for about 0.02-0.05% of Ukraine's GDP, and the entire market accounts for about 0.2% of GDP, generating added value in related industries. The most active sectors are financial, energy, environmental, transport, and urban planning, in which open data serves as the basis for analytical systems, monitoring, planning, and operational transparency. That indicates the market is becoming a sustainable economic segment with high potential for further development.

After 2022, the open data market in Ukraine underwent a significant transformation in the demand structure. Restrictions on access to some key state registers temporarily reduced the amount of available data and narrowed the functionality of several services. At the same time, the analysis of interviews and focus groups shows that there was no redistribution in favour of one segment, but instead that the range of users expanded and interest in socially important applications of open data grew. Alongside traditional commercial use, the number of requests from state bodies, volunteer communities, international partners, and security, humanitarian logistics, and reconstruction-related structures has increased significantly. The growth of these segments is explained by the need for operational, structured and technically compatible data for risk analysis, counterparty verification, monitoring compliance with legislation and planning infrastructure solutions. It is precisely those sets with a high level of structure, high-quality metadata, and accessible APIs (financial, transport, environmental) that have become the most in demand amid rapidly changing operational needs. In addition, respondents noted that restrictions on data access had noticeable economic consequences for the market and individual services, as they made it impossible to perform basic operations such as counterparty verification, risk monitoring, or financial analytics. In this context, examples such as the adaptation of YouControl products or the State Service of Ukraine for Transport Safety

tools to humanitarian logistics tasks illustrate not a shift in emphasis, but rather the rapid growth of additional demand segments that were previously of secondary importance. The demand structure has become more multidimensional: commercial use remains, but large-scale and critical cases complement it at the intersection of security, risk management, and reconstruction.

The sector is demonstrating gradual institutional maturity: 36.8% of companies actively integrate open data for analytics, 12.2% integrate it into products, and 4.6% rely on it as the core of their business model. The focus of market participants is shifting from the number of published sets to improving the quality and suitability of data for machine processing. The focus is on structure, metadata availability, historical updates, and the possibility of API integration. Government agencies are gradually improving their approaches to publication, streamlining formats, clarifying identifiers, and expanding open data sets, in particular through methodological materials, standardisation, and consultations conducted by the Ministry of Digital Transformation. These developments create the prerequisites for a more predictable, consistent and technically compatible open data market, which, in turn, strengthens trust between the state, business and the public.

Sectoral maturity in the use of open data varies significantly between industries. The banking sector makes up to 85% of strategic decisions based on open data; in risk insurance, their share is 70-80%, and in life insurance, 40-50%. In legal and security services, the share of integrated open data is 20-25%. The use of open data grows with enterprise scale: 83% of large companies, 56% of medium-sized companies, 44% of small companies, and 23% of micro-businesses actively integrate open data. By sector, the greatest importance of open data is recorded in finance and banking (62%), the public sector (52%), professional services (47%), and trade (41%). Average indicators are observed in logistics (36%), IT (34%) and construction (30%). A smaller but noticeable impact of data is in transport (27%), industry and energy (23%), and the non-governmental sector (21%). The lowest indicators are in the agricultural sector (20%) and education and culture (6%).

Open data creates a tangible social impact. Transparency of decision-making, accountability of authorities and development of public control. Platforms such as Prozorro, B Prozorro, OpenBudget, YouControl and SaveEcoBot demonstrate that the availability of structured information creates conditions for equal access to public resources, evidence-based journalism, and the building of trust between citizens, businesses, and the state. After the start of the full-scale invasion, the role of open data has increased: they are used to monitor reconstruction and logistics, assess environmental risks, check counterparties, and identify related structures in high-risk sectors. At the same time, a hybrid data use model has emerged in Ukraine, combining open data with internal corporate databases, commercial data, archival records, and information obtained through special requests. This approach allows for compensating for temporary restrictions on access to individual registers while maintaining service stability. A new stage of development has been the use of artificial intelligence tools - from automatic risk analysis and detection of anomalies in transactions to data integration into operational monitoring systems. With stable access and technical standardisation, open data can serve as the foundation for transparent recovery and long-term institutional resilience.

Artificial intelligence enhances the value of open data and shapes new directions for its use. The combination of open data with AI, machine learning, and geospatial analytics technologies enables the creation of new services, improves the quality of information processing, and reduces operational costs. The areas of risk analysis, counterparty verification, compliance monitoring, environmental analysis, and restoration have the greatest potential. The further development of such solutions depends on the availability of structured, regularly updated datasets and the technical modernisation of registers.

International partners play an essential role in the stability and development of the open data ecosystem. International organisations and donor programs ensure the sustainability of the open data market through grant support, technical assistance, and the implementation of European standards, enabling the system to function and develop even in wartime conditions.

Recommendations

Legislative and institutional actions

- Institutionally and legislatively strengthen the Ministry of Digital Transformation in the context of fulfilling the powers assigned to it.
- Strengthen the responsibility of open data providers for the timeliness of updates and the reliability of published data.
- Introduce incentive and disciplinary measures that would encourage a proactive position of information providers in the context of publishing open data.
- Require each open data manager to identify person(s) who are responsible for the open data manager's implementation of the open data policy, including for the timely updating and publication of datasets.
- Update open data legislation to reflect new best practices in the field.
- Adopt a Strategy for the Development of the Open Data Sector.

Data quality and availability

- Introduce a unified system for assessing the quality of sets with public ratings of providers.
- Resume regular updates of open data sets that were temporarily suspended, including tax, cadastral, and customs data sets, taking into account security restrictions.
- Provide predictable and transparent access conditions to key registry APIs (USR, Prozorro, financial reporting).
- Strengthen metadata standardisation through precise technical requirements for data formats, sets, and structures, including mandatory identifiers, schemas, and update frequency.
- Promote interoperability of open data sets from different providers.
- Modernise the functionality of the data.gov.ua portal, focusing on indexing, metadata quality, format validation, historical publication history, and convenient search.
- Conduct regular data quality audits by providers (information audits), with the publication of reports on completeness, relevance, and formats.
- Implement automated tools for the moderation and validation of datasets (including using AI algorithms to check quality, structure, duplications, and anomalies), with subsequent verification by specialists.

Economic development of the market

- Stimulate the creation of startups and services based on open data through grants and competitions.
- Develop systematic cooperation between government agencies, businesses, media, and think tanks to share and improve open data.

Communication and culture of openness

- ➔ Conduct information campaigns to promote open data at the national and local levels.
- ➔ Support research into the economic and anti-corruption impact of open data in collaboration with analytical institutions and experts.

Public safety and reconstruction

- ➔ Use open data to monitor the transparency of reconstruction, public procurement, and aid distribution.
- ➔ Develop mechanisms for anonymisation and proportionate access restrictions to ensure a balance between openness and protection of information in wartime.
- ➔ To form stable mechanisms for using open data for anti-corruption monitoring and public control.

Appendix 1: Guide for conducting interviews with open data experts

Research objective: To carry out a systematic assessment of the state and prospects of the open data market in Ukraine after the start of full-scale Russian aggression, to determine its size, structure, problems and impact on the economy and society.

Interview duration: up to 60 min.

Format: online interview on the Zoom platform or similar (as an exception, personal meetings or telephone interview)

Target respondents: experts or organisations specialising in open data research

Indicative list of questions

Note: The interviewer's task is to reveal each interview topic. If the respondent has already answered another question in the course of answering a question, it is not necessary to repeat it. The order in which the topics are discussed is arbitrary, but it is essential to obtain information on each topic.

Before starting the interview, it is essential to ask the respondent whether they would mind being recorded.

Before starting the interview, it is necessary to agree on the terminology with the respondent. It is recommended to read the definition to the respondent or to name the key features of open data (highlighted in bold in the text). Suggested text:

"In this study, we use the definition of open data according to the Law of Ukraine «On Access to Public Information». Thus, by open data we mean **public information** in a format that allows automated processing by electronic means, free and open access to it, and **further use**. That means that we are talking about information received, created or stored by state authorities, local governments, state and municipal enterprises, and which is available for download in file form, as well as through APIs in machine-readable or tabular format."

General information about the expertise of the respondent/organisation they represent

Please tell us about your organisation's role/your role, and your experience in the field of open data in Ukraine. How long have you been working on this topic and in what capacity (researcher, activist, donor representative, journalist, etc.)?

What is the focus of your main open data activities?

Assessment of the state and dynamics of the open data market

How would you characterise the current state of the open data ecosystem in Ukraine?

How do you think the open data services market has changed since the full-scale invasion began?

Who are the key players in this market today? Assess the role of government, business, and the public sector. How has their influence and role changed in recent years?

Which sectors of the economy and public life do you think benefit the most from the use of open data? Has this situation changed after 2022?

Impact of data access restrictions after 2022

How do you assess the decision to close some state registers and restrict access to data after a full-scale intrusion? To what extent, in your opinion, were these steps justified?

What, in your opinion, are the main negative consequences of this closure for the economy, transparency of governance, and society in general?

How do you assess the current process of gradually restoring access to some data? Is it sufficiently transparent and systematic?

Which datasets do you think are a priority for discovery in the near future, and why?

Problems, challenges and development prospects

What systemic problems does the open data sector in Ukraine face, besides limited access? (e.g., data quality, interaction with providers , lack of staff, technical issues, failure to comply with legal requirements for the publication of datasets).

How effective is the public policy in the field of open data? What are the strengths and weaknesses in the activities of the Ministry of Digital Transformation and other government bodies?

What data or types of data are critically lacking in Ukraine to stimulate innovation and the development of new services?

How does Ukraine compare to EU countries in terms of working with open data? What should we learn from the European experience?

What are the prospects for using new technologies, in particular artificial intelligence, for processing and analysing open data in Ukraine?

Social, anti-corruption and economic impact

In which areas do you think open data has had the greatest positive impact (e.g., fighting corruption, increasing transparency, improving public services, environmental monitoring)?

What risks may be associated with the use of open data?

Can you provide specific examples or success stories that clearly demonstrate the benefits of open data in Ukraine?

In your opinion, how fully is the economic potential of open data realised in Ukraine? What hinders its disclosure?

What role can and should open data play in the reconstruction and recovery processes of Ukraine?

Other

What essential issues related to the open data market did we not discuss during the interview?

In your opinion, what three key steps by the state, business, or the public could significantly accelerate the development of the open data market in Ukraine?

Appendix 2: Guide for conducting interviews with open data providers

Research objective: To carry out a systematic assessment of the state and prospects of the open data market in Ukraine after the start of full-scale Russian aggression, to determine its size, structure, problems and impact on the economy and society.

Interview duration: up to 60 min.

Format: online interview on the Zoom platform or similar (as an exception, personal meetings or telephone interview)

Target respondents: experts or organisations specialising in open data research

Indicative list of questions

Note: The interviewer's task is to reveal each interview topic. If the respondent has already answered another question in the course of answering a question, it is not necessary to repeat it. The order in which the topics are discussed is arbitrary, but it is essential to obtain information on each topic.

Before starting the interview, it is important to ask the respondent whether they would mind being recorded.

Before starting the interview, it is necessary to agree on the terminology with the respondent. It is recommended to read the definition to the respondent or to name the key features of open data (highlighted in bold in the text). Suggested text:

"In this study, we use the definition of open data according to the Law of Ukraine «On Access to Public Information». Thus, by open data we mean **public information** in a format that allows automated processing by electronic means, free and open access to it, as well as **further use**. That means that we are talking about information received, created or stored by state authorities, local governments, state and municipal enterprises, and which is available for download in file form, as well as through APIs in machine-readable or tabular format."

General information about the institution and its role

- ➔ Please tell us about the role of your body/institution in the open data system of Ukraine. What key datasets are you responsible for?

Open data processes and infrastructure

- ➔ Does your organisation have departmental acts that govern the use of datasets by data providers ?
- ➔ Please describe the typical process for publishing a dataset at your institution.
- ➔ Are data sets always released at the stated frequency? If not, what are the reasons for the delays?
- ➔ What hardware, software, and platforms do you use to manage and publish data?
- ➔ Do you have an open data strategy in your organisation? How do you prioritise which datasets to open first?

- What technical, legal, or organisational challenges do you face when publishing and regularly updating open data?
- With which other organisations (contractors, utilities) is there interaction/collaboration during data collection, preparation, and publication? How would you assess the quality and effectiveness of this interaction? What should be changed/improved?

Open Data Market

- Are quantitative metrics collected regarding the distribution of open datasets? Which datasets are most popular? What is the frequency of downloads? What is the geography?
- Please describe the main users of the open data sets managed by your organisation. Who do you think – government agencies, businesses, citizens – use open data most often? Please estimate the share of each user type. Have they changed since the full-scale breach?
- What companies/services that specialise in creating products/services based on open data use the datasets you produce? How has this market changed since the full-scale invasion began? For example, has the number of companies changed, etc.?

Impact of data access restrictions after 2022

- What key datasets for which you are responsible have been closed or restricted in access after February 24, 2022?
- If so, what were the main reasons and criteria for the decision to close access?
- How did the closure of some state registers and the restriction of access to data after a full-scale invasion affect the work of your institution?
- Have you communicated with data users (government agencies, businesses, the public) regarding the closure of registers and restrictions?
- Is there a plan to restore access to this data? What conditions must be met for it to be reopened?
- How do users access datasets that are currently closed? Does your organisation have contractual relationships that provide companies specialising in creating products/services based on open data with access to datasets?

Problems, challenges and development prospects

- How would you rate the quality of the data you publish? What processes are in place to ensure its accuracy, completeness, relevance, and machine-readability?
- How do you interact with consumers of your data? Do you receive feedback (e.g., bug reports, suggestions), and how do you use it?
- Do you feel a shortage of staff or competencies for working with data in your institution? What specialists are lacking?
- What data, in your opinion, should be made public at the state level, primarily to stimulate the economy and increase transparency?
- Do you use artificial intelligence technologies to process, analyse, or prepare data for publication?
- Do you know how open data providers of similar open data sets work in the European Union? How does the EU's approach to working with open data differ from Ukraine's, and what needs to change in Ukraine to align with EU standards?

Social, anti-corruption and environmental impact

- ➔ Which data sets, in your opinion, have the greatest economic (commercial) potential? Which data sets, in your opinion, have the most significant economic (commercial) potential?
- ➔ Has opening up the datasets you work with had a positive impact on society? For example, has it improved decision-making, reduced costs, helped businesses create new services, increased transparency in government activities, contributed to the fight against corruption, or helped solve environmental problems?
- ➔ If so, do you know of any specific examples (case studies)? Please tell us.
- ➔ What risks may be associated with the use of open data?

Other

- ➔ What other issues do you think are important when researching the open data market that we didn't touch on during the interview?
- ➔ In your opinion, what three key steps by the state or business would significantly accelerate the development of the open data market in Ukraine?

Appendix 3: Guide for conducting interviews with companies working with open data

Research objective: To carry out a systematic assessment of the state and prospects of the open data market in Ukraine after the start of full-scale Russian aggression, to determine its size, structure, problems and impact on the economy and society.

Interview duration: up to 60 min.

Format: online interview on the Zoom platform or similar (as an exception, personal meetings or telephone interview)

Target respondents: experts or organisations specialising in open data research

Indicative list of questions

Note: The interviewer's task is to reveal each interview topic. If the respondent has already answered another question in the course of answering a question, it is not necessary to repeat it. The order in which the topics are discussed is arbitrary, but it is essential to obtain information on each topic.

Before starting the interview, it is important to ask the respondent whether they would mind being recorded.

Before starting the interview, it is necessary to agree on the terminology with the respondent. It is recommended to read the definition to the respondent or to name the key features of open data (highlighted in bold in the text). Suggested text:

"In this study, we use the definition of open data according to the Law of Ukraine «On Access to Public Information». Thus, by open data we mean **public information** in a format that enables its automated processing by electronic means, free and open access to it, and **its further use**. That means that we are talking about information received, created or stored by state authorities, local governments, state and municipal enterprises, and which is available for download in file form, as well as through APIs in machine-readable or tabular format."

Information for interviewers. Can be used during interviews. Examples of open data sources (non-exhaustive list):

1. Unified State Open Data Web Portal (data.gov.ua)
2. Open Data Portal of the Verkhovna Rada of Ukraine
3. Open data portals of local governments (Open Data Portal of Lviv, Vinnytsia, etc.)
4. National Geospatial Data Infrastructure (access restricted during martial law)
5. Public APIs:
    - Register of NACP Declarations
    - Prozorro
    - Prozorro.Sales
    - API services of the National Bank of Ukraine
    - E-Data System (Spending, Open Budget)
    - USR
    - Dream

6. Open data sets defined in Resolution of the Cabinet of Ministers No. 835, even if they are accessed under specific conditions, not in an open data format.

Several quantitative questions should be asked of the respondent before the interview. A short questionnaire is sent to the respondent along with the interview request. If responses are not received before the interview begins, this information is requested during or at the end of the interview.

Question:

	2024	2021
Company revenue (approximate amount, in UAH million)		
Average annual number of employees in the company		
Number of data requests for company products/services		
Share of open data usage by company	1) Every day/constantly 2) Every week/regularly 3) Several times a month/regularly 4) Several times a year/regularly 5) Sometimes as needed 6) I don't use open data	1) Every day/constantly 2) Every week/regularly 3) Several times a month/regularly 4) Several times a year/regularly 5) Sometimes as needed 6) I don't use open data

Introduction: General information about the company and market dynamics

- ➔ Please tell us about your company (when it was founded, scope of activity, key products/services, target audience)
- ➔ Please list the data-based services (not just open data) that your company offers.
- ➔ How would you assess the overall dynamics of your market segment in recent years - has it grown or contracted? Have you developed new business areas? What was this related to?

Topic 1: The role of open data in a company's business model

➔ How would you describe the role of open data for your business?

- They are a core element of your business model
- They are an essential part of the business model, but not the only one.
- They are additional functionality for your products/services.
- They are used for internal use.

➔ Estimate in percentage terms how much your company's operations depend on access to open data.

➔ What would happen to your company if access to key open data sets for your business were to be completely cut off?

Note to the interviewer: possible consequences that can be pointed out to the respondent if necessary - costs will increase, some areas will close, and the company will close.

➔ How does (can) temporary loss of access to open data, for example, due to a cyberattack, affect?

[A KEY QUESTION THAT MUST HAVE A DETAILED ANSWER]

➔ What categories of open data do you use? For each category, please provide more details about:

- Main sources,
- Frequency
- Purpose of use,
- (Potential) users.

Note: if necessary, you can specify the main categories, such as: data on companies and their owners; statistical; mobility; public procurement; data from public state registers; geospatial; Earth and environmental observation; meteorological. (Source: Open Data Directive)

Note: if necessary, you can indicate the primary sources, such as data.gov.ua, stat.gov.ua, the State Service of Ukraine for Transport Safety, Prozorro, and service companies such as YouControl. A more detailed list of sources is provided at the beginning of the guide.

➔ What public data (other than open) do you use? Is there a difference for you between machine-readable data (via API) and data in different formats?

➔ What data, information or documents does the company regularly request from government authorities?

➔ How does the company obtain the data, other than in a machine-readable format?

➔ Does the company receive data, information or documents from government authorities on a contractual basis? If so, what kind? (Note to the interviewer: examples of data provided by government agencies on a contractual basis are fine payment services, public procurement platform, Unified State Register, etc.)

➔ What data, information or documents that you receive from government authorities, including through requests or on a contractual basis (possibly for a fee), would you like to receive in the form of open data?

Topic 1A: Assessment of the market for services based on open data [only for companies where open data is the basis of the business or constitutes a significant part of the business - based on answers to the questions of Topic 1]

- How do you assess the current state of the open data services market? What are its dynamics, and how many key players are there?
- What do you estimate the total size of this market to be today? How has it changed compared to the situation before 2022, i.e. before the full-scale invasion?
- What, in your opinion, is the share of the open data market in the structure of the national economy?
- Which sectors, in your opinion, benefit the most from the existence and development of open data?

Topic 2: Impact of data access restrictions after 2022

- Has the closure of some state registers and the restriction of access to open data after a full-scale invasion affected the work of your company?
- If so, what was the impact? Were there any projects or lines of business in your company that had to be shut down due to data access restrictions? Which data closures were the most painful?
- Can you estimate the economic losses (e.g. as a percentage of revenue) due to open data closure?
- Do you know of any partners or competitors that have ceased operations due to limited access to open data? If so, please list them.
- What changes in the availability of open data do you see now, compared to the situation at the beginning of the invasion: what has been opened, what may still be closed, and how do you assess these changes?
- Which of the datasets closed after February 2022, in your opinion, should be opened first?

Topic 3: Problems, challenges and prospects for market development

- What key challenges do you face when working with open data in Ukraine? **Note:** if necessary, examples of problems can be given: irregular data updates, data quality, closure of registers
- How would you rate the ease of access to data and interaction with government agencies as information providers ? What are your complaints or wishes?
- What data (data sets) are you missing to develop existing or create new products and services?
- Have you used European Union data in your work? If so, where is it easier/better to work with datasets?
- Do you use artificial intelligence technologies for data processing?

- What are the main requirements for employee qualifications? Do you feel a shortage of qualified personnel to work with data? If so, what are your actions?
- What are your company's development plans related to the use of open data?

Topic 4. Social, anti-corruption and environmental impact

- What tasks do customers most often use your products/services to solve based on open data?
- Do your products/services help increase transparency and accountability in government or business? If so, please explain how
- Can you give examples of how your services contribute to improving the lives of communities or help citizens make better decisions?
- Are your products used to monitor, analyse, or solve environmental problems?
- Do you think that the use of open data contributes to the economic development of the country, for example, increases productivity, saves money, and creates new products? Can you give examples from your company's experience?

Other

- What other issues do you think are essential to consider when researching the open data market that we didn't cover during the interview?
- In your opinion, what three key steps by the state or business would significantly accelerate the development of the open data market in Ukraine?

Appendix 4: Questions for the IER New Monthly Enterprise Survey

How important is open data to the organisation/company where you work? (choose one option)(required question)

- It is the core of the business model
- It is a significant part of the business model, but not the only one
- It is an additional functionality for products/services
- Used primarily for internal needs (analytics, counterparty verification, etc.)
- Almost not used in the company's operations, and not a significant part of the business model
- Not used and not relevant to the business model
- Hard to say / I don't know

What categories of open data do employees of your company use in their professional activities? (select all sources that have been used at least once)(FOR RESPONDENTS WHO SELECTED OPTIONS 1-4 IN QUESTION 1)

SEVERAL ANSWERS ARE POSSIBLE

- Data about companies and their owners (YouControl, Opendatabot, Clarity Project)
- Public procurement data (Prozorro, Monitoring of road construction and repair costs, Search and analytical system.007)
- Real-time public transport traffic data (EasyWay, Bus Route Network)
- Vehicle data (RIA.com, scanbe.io)
- Data in the construction sector (CoST «Transparent Infrastructure», LUN City, SOFTPRO, Renovation Map)
- Judicial data (court register) (CrimeDataLab, Babusya, Sud Control)
- Data on Ukrainian legislation (laws, NPA) (PravoSud, Court decisions and register, New Codes of Ukraine)
- Data in the field of security and law enforcement (i2 Analyst's Notebook, Ministry of Internal Affairs - crime statistics)
- Healthcare data (Medbot «Marta», MedKontrol, E-Liky)
- Data in the field of education and science (Vstup.info)
- Data in the field of culture and tourism (Ukraine Tourism Barometer)
- Employment and labor market data
- Statistical data (Ministry of Finance, State Statistics Service, NBU statistics)
- Meteorological data (Ukrainian Hydrometeorological Centre, AccuWeather)
- Environmental data (SaveEcoBot, Ecomap)
- Hard to say / I don't know
- Other (write): _____

What sources of open data, and how often, do your company's employees use them in their professional activities? (select all sources they have used at least once) (required question)

		Do not used	Some-times when neces-sary	Several times a month	Several times a week	Daily	Hard to say / I don't know
1	Unified State Open Data Web Portal (data.gov.ua)						
2	State Statistics Service of Ukraine (stat.gov.ua)						
3	Open Data Portal of Verkhovna Rada of Ukraine						
4	Open data portals of local self-govern-ment bodies						
5	E-Data system (Spending.gov.ua, Openbudget.gov.ua)						
6	Prozorro, Prozorro. Sale						
7	Anti-corruption Por-tal of the National Agency on Corrup-tion Prevention						
8	Extract from the Unified State Regis-ter of Legal Entities						
9	Open data of the National Bank of Ukraine						
10	DREAM (Digital Re-construction Eco-system for Account-able Management)						
11	Open data of the State Service of Ukraine for Trans-port Safety (Ukr-transbezpeka)						

		Do not used	Some-times when neces-sary	Several times a month	Several times a week	Daily	Hard to say / I don't know
12	Unified State Elec-tronic Education Database (educa-tional institutions, licenses, students), National Repository of Academic Texts						
13	Meteorological data (Ukrainian Hydro-meteorological Centre)						
14	State Agency for Tourism Develop-ment of Ukraine (tour guides, tour-ism infrastructure data)						
15	State Employment Service (dcz.gov.ua), Portal “Unified Job Portal” (career.gov.ua)						
16	Pre-processed data - from providers and services (Open-databot, Clarity Pro-ject, LIGA:ZAKON, etc.)						

If you use any other open data sources (other than those already mentioned), please list them and indicate the frequency of their use:

4.1.1 Source 1: _____

4.1.2 Frequency:

- Do not use
- Sometimes when necessary
- Several times a month
- Several times a week
- Every day

4.2.1 Source 2: _____

4.2.2 Frequency:

- Do not use
- Sometimes when necessary

- Several times a month
- Several times a week
- Every day

4.3.1 Source 3: _____

4.3.2 Frequency:

- Do not use
- Sometimes when necessary
- Several times a month
- Several times a week
- Every day

Appendix 5: Online Survey Questions: Assessment of the Open Data Market in Ukraine

What categories of open data do you use? (select all that apply)(required question)

- Company and beneficial ownership data
- Public procurement data
- Real-time public transport movement data
- Vehicle data
- Construction sector data
- Judicial data (court register)
- Ukrainian legislation data (laws, regulatory legal acts)
- Public safety and law enforcement data
- Healthcare data
- Education and science data
- Culture and tourism data
- Employment and labour market data
- Statistical data
- Meteorological data
- Environmental data
- Other (write): _____

What open data sources do you use and how often (select all sources you have used at least once)(required question)

		Do not used	Some-times when neces-sary	Several times a month	Several times a week	Daily	Hard to say / I don't know
1	Unified State Open Data Web Portal (data.gov.ua)						
2	State Statistics Service of Ukraine (stat.gov.ua)						
3	Open Data Portal of Verkhovna Rada of Ukraine						
4	Open data portals of local self-govern-ment bodies						

		Do not used	Some-times when neces-sary	Several times a month	Several times a week	Daily	Hard to say / I don't know
5	E-Data system (Spending.gov.ua, Openbudget.gov.ua)						
6	Prozorro, Prozorro. Sale						
7	Anti-corruption Portal of the National Agency on Corruption Prevention						
8	Extract from the Unified State Register of Legal Entities						
9	Open data of the National Bank of Ukraine						
10	DREAM (Digital Reconstruction Ecosystem for Accountable Management)						
11	Open data of the State Service of Ukraine for Transport Safety (Ukrtransbezpeka)						
12	Unified State Electronic Education Database (educational institutions, licenses, students), National Repository of Academic Texts						
13	Meteorological data (Ukrainian Hydrometeorological Centre)						
14	State Agency for Tourism Development of Ukraine (tour guides, tourism infrastructure data)						

		Do not used	Some-times when neces-sary	Several times a month	Several times a week	Daily	Hard to say / I don't know
15	State Employment Service (dcz.gov.ua), Portal “Unified Job Portal” (career.gov.ua)						
16	Pre-processed data - from providers and services (Open-databot, Clarity Project, LIGA:ZAKON, etc.)						

If you use any other open data sources (other than those already mentioned), please list them and indicate the frequency of their use:

_____

What problems do you encounter most often when working with open data in Ukraine? (choose up to 3 most important)(optional question)

- Irregular or delayed data updates
- Low data quality (errors, gaps, incomplete data, non-machine-readable formats)
- Full or partial closure of required registers
- Poor API technical documentation
- Technical issues with data access (unstable API performance, restrictions)
- Lack of required datasets
- No problems encountered
- Other (write): _____

How important is open data to the organisation/company where you work? (choose one option)(required question)

- It is the core of the business model
- It is an essential part of the business model, but not the only one
- It is an additional functionality for products/services
- Used mainly for internal needs (analytics, counterparty verification, etc.)
- Other (specify)

What would happen to the company/organisation where you work if access to key open data sets for the company/organisation were to be completely cut off? (choose one option)(optional question)

- Nothing will change.
- The changes will be minor.
- Costs will increase significantly (e.g., for purchasing data)
- Some projects or areas of activity will be closed
- The company/organisation will be forced to close.
- Other (write): _____

Did the closure of some state registers and the restriction of access to data after the full-scale Russian invasion affect your work? (required question)

- Yes
- No

If you answered «Yes» to the previous question, which datasets were the most painful to close: (optional question)

_____

Which sectors of the economy do you think benefit the most from the existence and development of open data? Select up to 5 sectors (optional question)

- Agriculture
- Industry
- Energy and utilities
- Construction
- Trade / Retail
- Transport
- Logistics
- Finance and banking services
- Insurance
- Professional services (legal, consulting, architectural, etc.)
- IT
- Public sector (public administration and finance)
- Non-governmental sector
- Other (write): _____

If you have additional thoughts or specific examples of cases/companies that illustrate your answers, please describe them below. (optional question)

_____

In which areas do open data and open data-based products/services have the greatest societal impact? (select all that apply)

- Increasing government transparency and accountability
- Anti-corruption activities
- Improving the quality of life in the community and urban planning
- Supporting citizens in making important decisions
- Financial scoring
- Individual background checks
- Marketing and market search
- Environmental monitoring and environmental protection
- Open data has no direct societal impact
- Other (write)_____

Please share your comments or suggestions that were not included in the questionnaire:(optional question)_____

Select the sector in which you work.

- Agriculture
- Industry
- Energy and utilities
- Construction
- Trade / Retail
- Transport
- Logistics
- Finance and banking services
- Insurance
- Professional services (legal, consulting, architectural, etc.)
- IT
- Public sector (government and finance)
- Non-governmental sector
- Other (write) _____

What is the average annual number of employees in your company/organisation?

- Up to 10
- 10-49
- 50-249
- 250+

Appendix 6: List of researched regulatory legal acts, including those regulating the sphere of open data in Ukraine

№	Name, number and date regulatory legal act
1	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
2	Constitution of Ukraine
3	Law of Ukraine No. 2939 of January 13, 2011 “On Access to Public Information”
4	Resolution of the Cabinet of Ministers of Ukraine dated October 21, 2015, No. 835 “On Approval of the Regulations on Data Sets Subject to Publication in the Form of Open Data”
5	Law of Ukraine No. 2657 of October 2, 1992 “On Information”
6	Law of Ukraine No. 2297-VI of June 1, 2010 “On the Protection of Personal Data”
7	Law of Ukraine No. 2807-IX of December 1, 2022 “On the National Informatisation Program”
8	Law of Ukraine No. 851-IV of May 22, 2003 “On Electronic Documents and Electronic Document Management”
9	Law of Ukraine No. 2155-VIII of October 5, 2017 “On Electronic Identification and Electronic Trust Services”
10	Law of Ukraine No. 776/97 of December 23, 1997 “On the Commissioner of the Verkhovna Rada of Ukraine for Human Rights”
11	Law of Ukraine No. 554 of April 13, 2020 “On the National Geospatial Data Infrastructure”
12	Decree of the President of Ukraine dated September 7, 2021, No. 487 “On the National Strategy for Promoting the Development of Civil Society in Ukraine for 2021-2026”
13	Resolution of the Cabinet of Ministers of Ukraine dated November 30, 2016, No. 867 “On Approval of the Procedure for Maintaining the Unified State Web Portal of Open Data”
14	Resolution of the Cabinet of Ministers of Ukraine dated August 5, 2020, No. 695 “On Approval of the State Strategy for Regional Development for 2021-2027”
15	Resolution of the Cabinet of Ministers of Ukraine dated March 4, 2021, No. 220 “On Approval of the State Anti-Corruption Program for 2023-2025”
16	Resolution of the Cabinet of Ministers of Ukraine dated April 14, 2021, No. 366 “On Approval of the National Strategy for Creating a Barrier-Free Space in Ukraine for the Period Until 2030”
17	Order of the Cabinet of Ministers of Ukraine dated November 17, 2023, No. 1049 “On approval of the action plan for the implementation of the Open Government Partnership Initiative in 2023-2025”

Appendix 7: List of EU acts in the field of open data

№	Title and number of the act
1	Directive (EU) 2019/1024 on open data and the re-use of public sector information (Open Data Directive)
2	EU Directive 2002/58/EC (ePrivacy Directive)
3	EU Directive 2016/680
4	EU Regulation 2016/679 (GDPR)
5	EU Regulation 2022/868 (Data Governance Act (DGA))
6	Commission Implementing Regulation (EU) 2023/138
7	EU Regulation 2018/1725
8	EU Regulation 2018/1807
9	EU Regulation 2023/2854
10	EU Regulation 2024/903 on ensuring a high level of interoperability
11	EU Regulation 2022/1925 on competitive and fair markets in the digital sector
12	Regulation (EU) 2022/2065 on the single market for digital services

Appendix 8: List of central-level providers (Resolution No. 835)

№	Open data manager	Number of sets	Manager type
1	Verkhovna Rada of Ukraine	9	Parliament and parliamentary control
2	Ukrainian Parliament Commissioner for Human Rights (Ombudsman)	2	Parliament and parliamentary control
3	Constitutional Court of Ukraine	5	Judicial system
4	Advisory Group of Experts	4	Judicial system
5	Staff of the National Security and Defence Council of Ukraine	1	Law enforcement, security agencies, justice
6	State Judicial Administration of Ukraine	10	Judicial system
7	Ethics Council	5	Judicial system
8	High Council of Justice	13	Judicial system
9	Higher Qualification Commission of Judges of Ukraine	12	Judicial system
10	Council of Judges of Ukraine	6	Judicial system
11	Qualification and Disciplinary Commission of Prosecutors	3	Law enforcement, security agencies, justice
12	Accounting Chamber of Ukraine	6	Economic policy, finance and state property
13	Central Election Commission	11	Election
14	National Bank of Ukraine	83	Economic policy, finance and state property
15	Deposit Guarantee Fund of Individuals	2	Economic policy, finance and state property
16	Office of the Prosecutor General	6	Law enforcement, security agencies, justice
17	Ministry of Justice of Ukraine	16	Law enforcement, security agencies, justice
18	Ministry of Internal Affairs of Ukraine	3	Law enforcement, security agencies, justice
19	Ministry of Economy of Ukraine	100	Economic policy, finance and state property
20	Ministry of Finance of Ukraine	13	Economic policy, finance and state property
21	Ministry of Health of Ukraine	22	Social policy
22	Ministry of Energy of Ukraine	17	Energy
23	Ministry of Defense of Ukraine	2	Defence, security, foreign policy
24	Ministry of Education and Science of Ukraine	15	Education, science, intellectual property and innovation
25	Ministry for Development	49	Economic policy, finance and state property
26	Ministry of Social Policy of Ukraine	9	Social policy

№	Open data manager	Number of sets	Manager type
27	Ministry of Culture and Strategic Communications of Ukraine	22	Culture
28	State Agency for Tourism Development	1	Culture
29	Ministry of Youth and Sports of Ukraine	33	Culture
30	Ministry of Foreign Affairs of Ukraine	2	Defence, security, foreign policy
31	Ministry of Digital Transformation of Ukraine	5	Digital transformation, data and connectivity
32	Administration of the State Service of Special Communications and Information Protection of Ukraine	6	Digital transformation, data and connectivity
33	National Agency on Corruption Prevention	11	Law enforcement, security agencies, justice
34	Asset Recovery and Management Agency (ARMA)	1	Economic policy, finance and state property
35	National Police of Ukraine	7	Law enforcement, security agencies, justice
36	Main Service Centre of the Ministry of Internal Affairs	8	Law enforcement, security agencies, justice
37	Administration of the State Border Guard Service of Ukraine	2	Law enforcement, security agencies, justice
38	State Emergency Service of Ukraine	10	Law enforcement, security agencies, justice
39	State Migration Service of Ukraine	3	Law enforcement, security agencies, justice
40	State Statistics Service of Ukraine	7	Digital transformation, data and connectivity
41	Antimonopoly Committee of Ukraine	4	Economic policy, finance and state property
42	State Property Fund of Ukraine	6	Economic policy, finance and state property
43	Pension Fund of Ukraine	9	Social policy
44	State Employment Service of Ukraine	2	Social policy
45	National Agency of Ukraine on Civil Service (NAUCS)	1	Other
46	National Energy and Utilities Regulatory Commission (NEURC)	13	Energy
47	National Commission for State Regulation of Financial Services Markets	9	Economic policy, finance and state property
48	National Commission for State Regulation of Electronic Communications, Radio Frequency Spectrum, and Postal Services	10	Digital transformation, data and connectivity

№	Open data manager	Number of sets	Manager type
49	PlayCity State Agency	11	Other
50	State Treasury Service of Ukraine	3	Economic policy, finance and state property
51	State Regulatory Service of Ukraine	2	Other
52	Bureau of Economic Security of Ukraine	1	Law enforcement, security agencies, justice
53	State Tax Service of Ukraine	37	Economic policy, finance and state property
54	State Customs Service of Ukraine	19	Economic policy, finance and state property
55	State Medical Service of Ukraine	8	Social policy
56	National Health Service of Ukraine	17	Social policy
57	State Aviation Service of Ukraine	10	Transport, post and infrastructure
58	State Service of Ukraine for Transport Safety	8	Transport, post and infrastructure
59	State Maritime Administration of Ukraine	9	Transport, post and infrastructure
60	State Labour Service of Ukraine	9	Social policy
61	State Service of Geology and Subsoil of Ukraine	12	Environment, natural resources
62	State Service of Ukraine on Food Safety and Consumer Protection	22	Environment, natural resources
63	State Service of Ukraine for Geodesy, Cartography and Cadastre	11	Environment, natural resources
64	State Audit Service of Ukraine	6	Economic policy, finance and state property
65	State Financial Monitoring Service of Ukraine	3	Economic policy, finance and state property
66	State Agency on Energy Efficiency and Energy Savings of Ukraine	1	Energy
67	National Agency for Higher Education Quality Assurance	3	Education, science, intellectual property and innovation
68	Agency for Restoration of Ukraine	12	Transport, post and infrastructure
69	State Film Agency of Ukraine	5	Culture
70	State Agency of Water Resources of Ukraine	5	Environment, natural resources
71	State Forest Resources of Ukraine	14	Environment, natural resources
72	State Fisheries Agency of Ukraine	6	Environment, natural resources
73	State Agency of Ukraine on Exclusion Zone Management	2	Environment, natural resources

№	Open data manager	Number of sets	Manager type
74	State Environmental Inspectorate of Ukraine	4	Environment, natural resources
75	State Inspection of Architecture and Urban Planning of Ukraine (DIAM)	1	Transport, post and infrastructure
76	Public Oversight Body for Auditing Activities	2	Economic policy, finance and state property
77	Audit Chamber of Ukraine	1	Economic policy, finance and state property
78	National Academy of Sciences of Ukraine	1	Education, science, intellectual property and innovation
79	Ukrainian Language and Information Fund of the National Academy of Sciences of Ukraine	5	Education, science, intellectual property and innovation
80	National Research Foundation of Ukraine	1	Education, science, intellectual property and innovation
81	Ukrainian Hydrometeorological Centre of the State Emergency Service of Ukraine	5	Environment, natural resources
82	National Bar Association of Ukraine	3	Law enforcement, security agencies, justice
83	LLC “Gas Transmission System Operator of Ukraine”	7	State-owned companies
84	State Enterprise “Ukrainian Scientific and Research Training Centre for Standardisation, Certification and Quality”	6	State-owned companies
85	State Enterprise “State Road Transport Research and Design Institute”	1	State-owned companies
86	State Enterprise “Ukrainian Sea Ports Authority”	5	State-owned companies
87	National Joint Stock Company “Naftogaz of Ukraine”	2	State-owned companies
88	National Nuclear Energy Generating Company “Energoatom”	8	State-owned companies
89	Joint Stock Company “Ukrtransgaz”	1	State-owned companies
90	Private Joint Stock Company “National Power Company “Ukrenergo”	6	State-owned companies
91	National Centre for Operational and Technical Management of Electronic Communication Networks	1	Digital transformation, data and connectivity

№	Open data manager	Number of sets	Manager type
92	Joint Stock Company “Ukrainian Railways”	18	State-owned companies
93	Joint Stock Company “Ukrposhta”	2	State-owned companies
94	Private Joint Stock Company “Kyiv-Dniprovske Intersectoral Industrial Railway Transport Enterprise”	2	State-owned companies
95	Ukrainian National Office for Intellectual Property and Innovation	13	Education, science, intellectual property and innovation

Appendix 9: List of services and projects based on open data

№	Services and projects based on open data	Status
1	Abitly	Active
2	anyvin	Active
3	Artellence	Active
4	avtopro	Active
5	baza gai	Active
6	Bild.ua	Active
7	cardetect	Active
8	CarHistory	Active
9	CarHistoryUA	Active
10	carvertical	Active
11	CityBus	Active
12	CityScale	Active
13	Clarity App	Active
14	Clarity Dovidka	Active
15	Clarity Explorer	Active
16	Clarity Hromada	Active
17	Clarity Project	Active
18	CONTR AGENT	Active
19	Contractors	Active
20	CPV-tool	Active
21	CrimeDataLab	Active
22	Demarka	Active
23	Dixi Group	Active
24	DoZorro	Active
25	DREAM	Active
26	EasyWay	Active
27	Energy Map	Active
28	Energy online	Active
29	InvestMonitor	Active
30	ipLex	Active
31	JuliesData	Active
32	Lexcovery	Active
33	Liga NET	Active
34	Liga Zakon	Active
35	liga360	Active
36	lowcarbonukraine	Active
37	LuckyPolice	Active

№	Services and projects based on open data	Status
38	Lun.ua	Active
39	Lviv City Helper	Active
40	MedKontrol	Not updated
41	Monitor.Estate	Inactive
42	NGL.media	Active
43	NOMIS	Active
44	Open Data Watchdog	Active
45	OpenBudget	Active
46	OpenCars	Active
47	Opendatabot	Active
48	OpenMarket Vyhillia	Active
49	PravoSud	Inactive
50	Prozorro	Active
51	Prozorro.Продажі	Active
52	Rada4You	Active
53	SaveEcoBot	Active
54	scanbe.io	Active
55	StolenPhonesUA	Active
56	Stroom	Active
57	Sympto.me	Active
58	Tabula	Inactive
59	Ua-Region	Active
60	UKR.ZONE	Active
61	unda	Active
62	Urbandata	Active
63	verdictum	Active
64	Waste Ukraine Analytics	Active
65	Weekly Chart	Active
66	YC Markets	Active
67	YC World	Active
68	YouControl	Active
69	YouControl People	Active
70	YouControl.Virus	Not updated
71	YouScore	Active
72	ZakonOnline	Active
73	Zakonoproekt	Active
74	AutoNumbers	Active
75	Dozorro: Price Analysis in Prozorro Market	Not updated
76	Lviv Region Analytics Portal	Active
77	NHSU Analytical Dashboards	Active
78	Anti-corruption map of public repairs	Not updated

№	Services and projects based on open data	Status
79	Anti-corruption monitor	Not updated
80	Anti-corruption monitoring of the Lviv region	Active
81	Babusia	Active
82	The banking system of Ukraine in numbers	Active
83	Open Medical Reform	Active
84	Open environment	Active
85	Open e-ticket Zhytomyr	Not updated
86	Vkursi Zemli	Active
87	IDP Support Platform “Nazar”	Active
88	Public initiative “Holka”	Active
89	Dashboard on exports and imports of Ukrainian goods	Active
90	Eco-Threat	Active
91	E-Liky	Active
92	e-Data	Active
93	e-Fair	Active
94	Procurement 2.0	Inactive
95	Green Drohobych	Not updated
96	Green Kropyvnytskyi	Not updated
97	Winter Is Near: Coal Reserves Tracker	Not updated
98	Energy Transparency Index of Ukraine	Active
99	Authorised Persons Calculator	Active
100	Vaccination Map of Ukraine	Not updated
101	COVID-19 Procurement Map	Not updated
102	Kyiv Digital	Active
103	Non-price criteria builder	Active
104	Medical Expenditure Monitoring	Not updated
105	Defence Spending Oversight (StateWatch)	Active
106	Medicines Control	Active
107	LUN City	Active
108	Lviv residents against transport	Active
109	Medical analytics module from DoZorro	Active
110	Public Bus Routes Network	Active
111	Minfin.ua	Active
112	NadraMonitor	Active
113	Nashi Hroshi	Active
114	Nashi Hroshi. Network	Active
115	Don’t burn - compost!	Active
116	Nerukhomi	Active
117	New Codes of Ukraine	Active
118	OPORA Civic Network	Active
119	First car registration in Ukraine	Not updated

№	Services and projects based on open data	Status
120	PolitHub	Active
121	StateWatch Portal	Active
122	Portal of the IPVG	Active
123	Lviv region local statistics portal	Active
124	Search and analytical system .007	Active
125	Pravomen	Active
126	Dozorro Public BI Analytics Module	Active
127	Register of Collaborators	Active
128	CHESNO Movement	Active
129	Sickle to the rating	Active
130	CityBot “Nazar”	Inactive
131	Sud Control	Active
132	Court on the Palm	Inactive
133	Court Register by the Unified Court Decisions and Processing Center	Active
134	Court Hearings and Register	Active
135	TyKhto	Active
136	Lviv transport	Active
137	Tourism Barometer of Ukraine	Active
138	Financial scoring of Ukrainian banks	Active
149	The price of the state	Active
140	Chatbot “I will be a mom”	Active
141	“Healthy Ukrainians Calendar” Chatbot	Active
142	Chatbot “Likuysya”	Active
143	chatbot “Nurse Ivanka”	Active
144	Chatbot “Ask Hryts”	Active
145	Clean water	Inactive
146	Fines UA	Active
147	10 Services of the Ivano-Frankivsk Administrative Service Center: City Life Explained	Not updated