# MAKING DATA RUN, NOT PEOPLE

EGOV4UKRAINE PROJECT 2016-2021

#### The EGOV4UKRAINE project

is a part of the "U-LEAD with Europe" Program, financed by the European Union and its member states: Sweden, Denmark, Germany, Poland, Estonia, and Slovenia.

The project was implemented by the e-Governance Academy (Estonia)

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The support from our partners from the EGOV4Ukraine project and the "U-LEAD with Europe" Program as a whole was not only related to resources but also ideological. It was also the help of high-quality professionals who dedicated themselves to this work. They really became the team of our Ministry and the team of digital transformation in Ukraine. This project and our cooperation also inspired us to create products that we can offer to the world and share our experiences."

#### MYKHAILO FEDOROV

Vice-Prime Minister, Minister of Digital Transformation of Ukraine



We hope that the Vulyk information system will help optimize the Administrative Service Centers (ASCs), and that the system will be further developed according to the government's strategy for digitalization of services. ASCs provide services and consultations for citizens and businesses in a comfortable environment, and the "U-LEAD with Europe" Program creates 1,300 access points to services in communities."

#### SUSANNA DELLANS

Sida Program Director of "U-LEAD with Europe"



The EGOV4UKRAINE project has fulfilled its tasks. Our products, such as the Trembita data exchange system and the Vulyk information system, are already helping Ukrainian partners move along the path of digital transformation for the benefit of Ukrainian citizens and "the nation's development". Over these more than four years. we have been involved in truly revolutionary and socially evident changes that have a positive impact on the lives of Ukrainian citizens."

#### **MARI PEDAK**

EGOV4UKRAINE Project Team Leader

# **GENERAL RESULTS**

The EGOV4UKRAINE project was started in November 2016 and is planned to continue until the end of August 2021. Its purpose is to assist the Ukrainian government in the development of e-governance by creating, launching, and supporting the necessary IT solutions. The budget for the project amounted to about EUR 9.4 million.

#### THE PROJECT WORKED AND ACHIEVED RESULTS IN THE FOLLOWING MAIN AREAS.

Development and implementation of the Trembita secure data exchange system. It ensures the interaction of electronic registers and information systems of government authorities, which is the basis for the provision of e-services for citizens and businesses and promotes more efficient work by state institutions and local government authorities.

Development of the Vulyk modern information system for Administrative Service Centers. This system automates the work of ASCs, helping their employees to provide better services to citizens faster. Through the Vulyk, ASCs can access the Trembita system and interact with the Diia mobile application.

Assistance to central executive bodies in the development and implementation of e-services and the establishment of interaction between their electronic registers and information systems based on the Trembita secure data exchange system.

Raising awareness of government officials and society about the possibilities and advantages of e-governance. Development of e-governance using modern IT solutions. 2017

#### 2018

#### 2019

#### **TREMBITA**

- System development
- The system is named Trembita

#### VULYK

System development

#### **RAISING AWARENESS**

 2nd and 3rd Forums of IT Directors of the public sector

#### **TREMBITA**

- · System is developed
- Installed on the servers of Derzhinformresurs
- Handed over to the State Agency for e-Governance

#### **VULYK**

- Pilot project in 10 ASCs
- · The system is named Vulyk

#### **RAISING AWARENESS**

- 4th Forum of IT Directors of the public sector
- Representatives of local government authorities visited Estonia

#### **TREMBITA**

- First exchange between electronic registers of government agencies
- Received a certificate of compliance with information security requirements

#### **VULYK**

- Custody of the system is formally moved to the Ministry of Digital Transformation
- Beginning of the mass connection of ASCs

#### **RAISING AWARENESS**

- 5th Forum of IT Directors of the public sector
- Government delegation headed by Mykhailo Fedorov visited Estonia



2020

#### **TREMBITA**

- · Put into operation
- Over a million data exchanges achieved monthly
- Training for IT specialists of the public sector is provided
- · System functionality is expanded

#### **VULYK**

- Received a certificate of compliance with information security requirements
- · The 100th ASC is connected
- · System functionality is expanded
- The online learning platform is launched
- 18 online seminars for users were held

### 2021

#### **TREMBITA**

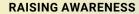
• The component is finished (February 28)

#### **VULYK**

- Ten online seminars for users were held
- A high-level conference dedicated to the Vulyk information system was held
- The component is finished (August 31)

#### **RAISING AWARENESS**

A high-level conference dedicated to the Trembita system was held





# TREMBITA – BASIS OF DIGITAL TRANSFORMATION OF UKRAINE

#### INTRODUCTION

The Trembita secure information exchange system is one of the key elements of the digital transformation of Ukraine.

The Trembita provides data exchange between government authorities and local government authorities through the interaction between their electronic registers and information systems. Thus, citizens and businesses can use modern e-services without providing paper certificates or other information to authorities. Electronic interaction using the Trembita system also saves time for public servants, prevents possible abuse, and promotes the efficiency of the government apparatus.

#### **EXAMPLES**

- ☐ For parents of newborns, the Trembita provides the comprehensive service eMaliatko, which allows you to use up to 9 online services related to the birth of a child
- ☐ For teenagers, the Trembita provides the ID-14 service, which allows you to get your first Passport and Taxpayer Identification Number in one place
- Paperless verification of pharmacy licenses under the Affordable Medicines Program helps in preventing possible abuse and saves time for public servants
- Access of state registrars and notaries to the full texts of court decisions when considering applications in the State Register of Proprietary Rights contributes to anti-raiding
- ☐ The Trembita allows you to verify your Taxpayer Identification Number in the Diia mobile application



The Trembita is based on the advanced Estonian X-ROAD data exchange platform, which is the foundation of Estonia's digital society. The Ukrainian system was developed with the participation of Cybernetica (Estonia) and SoftXpansion (Ukraine).

# Trembita

#### **IMPLEMENTATION**

Data exchange between government authorities through the Trembita is established in the following way:

- institutions sign an agreement on the use of the system with the Ministry of Digital Transformation of Ukraine
- institutions install components of the Trembita system
- the Trembita is connected to their electronic registers or information systems
- interaction between institutions for the provision of a particular service is established
- institutions use the Trembita to exchange data necessary for the provision of services or for other e-governance purposes

The EGOV4UKRAINE project worked on the Trembita system until February 28, 2021. As of that time:

81

government authorities signed agreements on the connection to the Trembita system

43

state electronic information resources are connected to the system

181

interactions are established between electronic registers and information systems of government authorities

164

the Trembita services (web services) are available for public and private institutions

29

e-services for the population were created/ improved by project experts on the basis of the Trembita services

#### **Trembita**

#### BASIS OF DIGITAL TRANSFORMATION OF UKRAINE

# WEB SERVICES AND INTERACTIONS

To exchange data through the Trembita system, some government authorities should open their electronic registers, and others should be able to obtain information from them. Establishing such interactions was a significant part of the EGOV4UKRAINE project, whose IT experts collaborated with dozens of central and local government authorities.

Web service is a software application that provides interaction between several information systems over a network. Web service provides other institutions with the ability to **obtain information** from the electronic register in which it is integrated.

Web client is a software application that allows you to **send requests** from one institution to the electronic registers of another and receive responses from that institution.

Several web services and web clients can be integrated into one electronic register or one information system.

#### **EXAMPLE**

Five state electronic information resources of the Ministry of Justice of Ukraine are connected to Trembita:

State Register of Acts of Civil Status; Unified State Register of Legal Entities, Individual Entrepreneurs and Public Organizations; Automated system of Enforcement Proceedings; State Register of Proprietary Rights; Unified Register of Powers of Attorney.

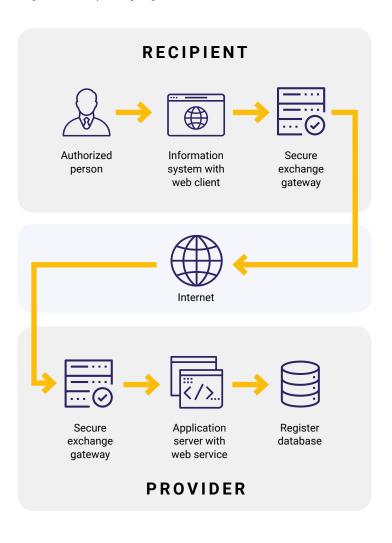
Twenty-seven electronic information interactions were established between these resources and electronic registers/information systems of other government authorities. Accordingly, 27 web services, which provide an opportunity for others to receive data from the information resources of the Ministry, were integrated into five electronic registers of the Ministry of Justice\*.

<sup>\*</sup> Data as of February 28, 2021

#### **HOW DATA RUNS**

#### **EXAMPLE**

Notaries and state registrars can receive copies of court decisions through the Trembita system when performing actions in the State Register of Proprietary Rights.



- → The notary forms a request for information (copies of the court decision) in the Unified Register of Court Decisions (data provider) through a special interface from the State Enterprise "National Information Systems."
- → The generated request is sent in the form of an electronic message to the recipient's secure exchange gateway request through the program (web-client) integrated into the Register of Proprietary Rights.
- → The gateway automatically creates an electronic seal for the electronic message and sends it to the secure exchange gateway of the Unified Register of Court Decisions in an encrypted form. The gateway receives the electronic message, verifies its integrity and the recipient's access rights to the information contained in the register. After verification, the gateway sends the message to another program (web service) integrated into the Unified Register of Court Decisions.
- → According to the content of the message, the web service searches for data in the register and generates a response to the request also in the form of an electronic message. In this case, a copy of the court decision is required by the notary. The process of sending a response through the Trembita system is identical to the request-sending process.

#### **Trembita**

#### BASIS OF DIGITAL TRANSFORMATION OF UKRAINE

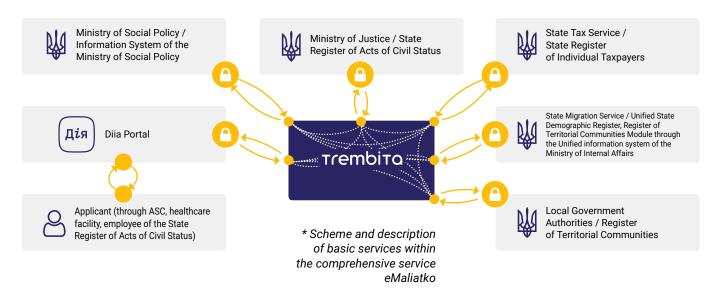
#### **SUCCESS STORY**

The capabilities of the Trembita system are well demonstrated by the comprehensive service eMaliatko. It allows you to use up to nine services related to the birth of a child. The service was launched in January 2020. As of May 2021, it was used by more than 90,000 families.

#### **HOW IT WORKS**

- The applicant, in person or through an administrator, fills in the application on the Diia portal. The application is submitted to the bodies of the Ministry of Justice. An act entry is created in the State Register of Acts of Civil Status. Then the data from this entry is sent from the Ministry of Justice in parallel to the State Tax Service and to the State Migration Service.
- The State Tax Service assigns a Taxpayer Identification Number to the child and enters it in the State Register of Individual Taxpayers. The State Migration Service assigns a Unique Record Number and enters it in the Unified State Demographic Register. Then the data is sent back to the Ministry of Justice for the issuance of the birth certificate of the child
- The Ministry of Justice completes the registration of the certificate by entering the received Taxpayer Identification Number and Unique Record Number. After that, the data from the birth certificate is sent from the Ministry of Justice to the Information System of the Ministry of Social Policy. Its bodies make decisions on birth-related social benefits and send the result to the Ministry of Justice.
- In parallel, the Ministry of Justice sends the birth certificate data to the Register of Territorial Communities of the State Migration Service; then, the data is sent to the Register of Territorial Communities of a specific local government body for the registration of the child's place of residence. After completion, the State Migration Service also sends the results to the Ministry of Justice.
- The Ministry of Justice forms the result of the application processing and sends it to the Diia portal, that is, to the applicant.

#### OPERATIONAL SCHEME OF THE eMALIATKO SERVICE\*



"eMaliatko and ID-14 are a breakthrough in the provision of services by government agencies. Today, applicants do not need to contact us in person to submit documents or obtain certificates, which saves time for both regular citizens and employees. And most importantly – the service is provided after automatic verification of the data from the registers of the State Migration Service, the Ministry of Justice, and the State Tax Service. We are sincerely grateful to the EGOV4UKRAINE project for the support and opportunity to implement such interagency interaction."

#### NATALIA KALIENICHENKO

Deputy Chairman of the State Tax Service of Ukraine for Digital Development, Digital Transformations and Digitization

# VULYK – MODERN INFORMATION SYSTEM FOR ASC

[2016-2021]

#### INTRODUCTION

The Vulyk information system automates the work of Administrative Service Centers. It allows the centers to serve citizens faster and better. This is achieved due to the basic capabilities of the Vulyk.

- B Work with applications, accepting, sending, receiving documents
- Automatic formation and printing of application forms, lists of necessary documents, descriptions of documents, etc.
- Automatic archiving of completed applications for administrative services
- Formation of internal statistical and reference information on the provision of administrative services
- □ Checking the status of the application processing on the website
- A Maintaining reference documents of applicants for reuse
- Scanning documents directly into the electronic case card with automatic linking of the documents to the card
- Transfer of applications to third-party (not connected to the Vulyk) government authorities through the System of Electronic Interaction of Executive Bodies and receipt of the results of application processing through that system

One of the most important functions of the Vulyk is the interaction with the Trembita data exchange system. Due to this interaction, ASC can provide services that require information or data from state registers connected to the Trembita.

The Vulyk is easy to use, has convenient functionality, and has an accessible interface. The system is administered at the central level, so ASCs do not need separate IT specialists. The information system is free. Any State Administrative Service Center can be connected to it.





#### **IMPLEMENTATION**

The mass connection of ASCs to the Vulyk information system started in August 2019. In addition, during 2018–2019, the EGOV4UKRAINE project tested the system as a part of a pilot project involving ten Administrative Service Centers.

Online learning platform and videos of training seminars

info.vulyk.gov.ua

#### AREAS OF WORK

- ☐ Project IT experts assist in setting up the Vulyk for ASCs supported by the "U-LEAD with Europe" Program through visits or remotely.
- Constant consultation of ASCs has been established through the specially created Facebook page "Vulyk in ASC. Exchange of Experience".
- An online platform for learning how to work with the information system has been created, where relevant videos, instructions, and presentations are posted.
- ☐ The project conducted 28 training seminars for ASC administrators and Vulyk integrators, and participants gained knowledge and skills in all aspects of working with the system. The total number of participants in such seminars amounted to about three thousand people.
- $\hfill \square$  About 400 ASCs are connected to the Vulyk information system.



#### **EXPANSION OF FUNCTIONALITY**

One of the features of the Vulyk information system is the ability to expand its functionality. In this respect, the system is comparable to a smartphone, providing the option to install various applications.

Expansion of functionality has become one of the most critical areas of work of the EGOV4UKRAINE project. The process started with a series of expert discussions in November 2019.

#### **EXAMPLE**

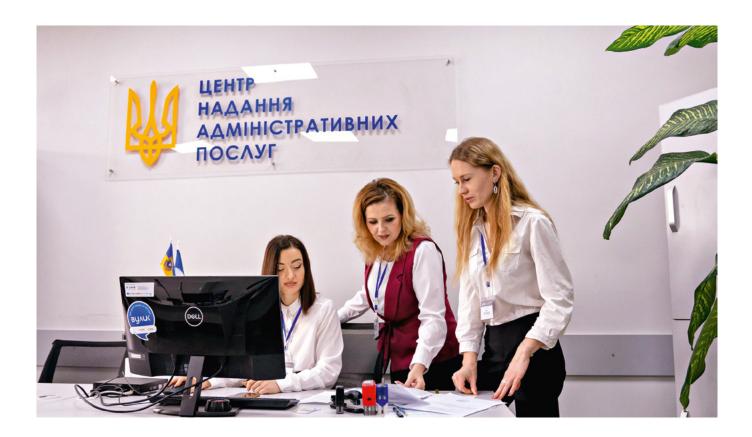
In December 2020, ASCs connected to the Vulyk were able to interact with the Diia mobile application.

If a person has this application in their smartphone, they do not need to bring paper copies of identification documents to receive administrative services – having electronic copies in the application is enough. It is also possible to share (transfer) a citizen's passport (ID-card), a foreign passport, a certificate of the assigned taxpayer identification number.

#### **HOW DOES IT WORK?**

- The ASC administrator scans the barcode of the electronic document in the Diia application
- The Vulyk system sends a request to the Diia system
- A message about the organization requesting the document for the provision of a particular service appears on the screen of the applicant's smartphone
- After confirmation by the applicant, the document enters the Vulyk system, and the process of providing the service starts

Integration of the Diia with the Vulyk system significantly speeds up the process of preparation of an application for administrative services, eliminates errors when filling out, and brings paperless workflow closer.



#### OTHER ADDITIONAL FEATURES OF THE VULYK

- Online payments. The applicant can pay for the administrative service using the online payment feature, a link to which is received via QR-code or e-mail.
- Request of a Qualified Electronic Signature (QES)
  from the ASC. The Vulyk will help deploy a Remote
  Registration Center based on ASC for providing trust services of
  Authorized Key Certification Centers.
- Reading ID-cards. With the help of an ID-card reader, the administrator receives the passport data of a citizen of Ukraine in electronic form.

- Consolidated reporting. Simplification of preparation of statistical reporting for local government authorities.
- ☐ Instant service. The result is provided immediately after registration of the application.
- Integration with the guide on public services. Allows ASCs to use a list of public services unified at the state level. This, in turn, unifies the services of different ASCs, as well as ensures the correct transfer of information to the online monitoring and quality assessment system of the Ministry of Digital Transformation.

#### vulyk

#### MODERN INFORMATION SYSTEM FOR ASC

#### **SUCCESS STORY**

→ The Administrative Service Center of Chortkiv (Ternopil region) was the first to take advantage of the opportunity to build interaction between the Vulyk information system and the Trembita data exchange system. Due to this, the ASC can verify the authenticity of the applicant's registration data in the state registers of the Ministry of Internal Affairs, the State Fiscal Service, and the State Migration Service.

In addition, through the Trembita system, interaction with the Chortkiv Register of Territorial Communities was built. Therefore, the data for the provision of administrative services related to residence registration are sent automatically. Data on the result of providing such services are also received automatically.

→ Bobrovytsia United Territorial Community (Chernihiv Region) was recognized as the winner of the Active Community competition of the Ministry of Digital Transformation of Ukraine in the nomination "Innovations in the field of public services" for the achievements of the local ASC in work with the Vulyk information system.

The Administrative Service Center of Bobrovytsia City Council uses the function of sending documents through the System of Electronic Interaction of Executive Bodies in the framework of providing administrative services of the State Service of Ukraine for Geodesy, Cartography, and Cadastre (StateGeoCadastre).



"Decentralization reform will not be effective without the development of e-services. Every community leader should set this as a goal for themself. It's important to make data run, not people."

#### VOLODYMYR SHMATKO

Mayor of Chortkiv

# RAISING AWARENESS ABOUT THE BENEFITS OF E-GOVERNANCE

The EGOV4UKRAINE project contributed to the popularization of the development of e-governance, explaining its benefits for the state and society. Throughout its work, the project carried out activities aimed at this. Some of them are listed below.

# REFERENCE VISITS TO ESTONIA

The EGOV4UKRAINE project and the e-Governance Academy organized six reference visits for representatives of central government authorities, municipalities, employees of administrative service centers, and journalists. The purpose of the visits was to show the benefits of digital transformation and possible ways to achieve high results using Estonia as the example.

#### AMONG THEM:

- September 2018. Representatives of ten Ukrainian local government authorities learned about best practices in providing services to citizens and developing e-governance in Estonian municipalities.
- March 2019. A delegation of seven journalists from print and online media and representatives of the State Agency for e-Governance of Ukraine visited Estonia.
- ☑ June 2019. During the visit to Estonia, the government delegation headed by the current Deputy Prime Minister, Minister of Digital Transformation Mykhailo Fedorov (then Adviser to the President of Ukraine), discussed the "State in Smartphone" concept and the involvement of Estonian experts for its implementation.
- March 2020. Representatives of the Ministry of Digital Transformation of Ukraine and the Ombudsman's Office learned how state policy and legislation could ensure the protection of data in the development of e-services.

# FORUMS OF IT DIRECTORS OF THE PUBLIC SECTOR

The most important events of the project to promote e-governance were the annual Forums of IT Directors of the Public Sector. They facilitated the communication and cooperation of industry leaders from all over Ukraine and outlined ways of further development.

Five Forums were held altogether. The last offline Forum, "Trust in Digital Society", held on September 2019, gathered more than 200 participants.

The keynote speakers were Andrus Ansip, Member of the European Parliament, Former Vice-President of the European Commission for Digital Single Market, Mykhailo Fedorov, Deputy Prime Minister, Minister of Digital Transformation of Ukraine and other heads of Ministry, ambassadors of several EU donors to the "U-LEAD with Europe" Program and officials of the EU Delegation in Ukraine, representatives of the e-Governance Academy (Estonia) and the EGOV4UKRAINE project.

Separate panels of the forum were devoted to the Trembita data exchange system and the Vulyk information system. The participants discussed how they contribute to implementing security principles and the development of e-governance and decentralization in Ukraine.





"Trust is mandatory. People will never start using electronic services as long as they feel that their data is insufficiently protected."

#### ANDRUS ANSIP (ESTONIA)

Member of the European Parliament



#### COMPETITION FOR ADMINISTRATIVE SERVICE CENTERS

From December 1, 2020, to April 30, 2021, an organized competition was held for ASC's connected to the Vulyk information system. Its purpose was to draw attention to the capabilities of the system and encourage its active use.

More than 50 Administrative Service Centers took part in the competition.

The winners were determined in two categories: "Best ASC connected to the Vulyk" and "Best Administrator of ASC connected to the Vulyk."

The winners were determined according to four criteria based on the statistics of the participating centers: the number of registered applications; issued results; provided consultations; applications submitted by the ASC using the System of Electronic Interaction of Executive Bodies.

#### **ASCs WINNERS**

- ☆ ASC of Pavlivsk Village Council, Volyn region
- ASC of Veselynove Settlement Council, Mykolaiv region
- ☆ ASC of Bobrovytsia City Council, Chernihiv region
- ☆ ASC of Krolevets City Council, Sumv region
- ☆ ASC of Chortkiv City Council, Ternopil region
- ☆ ASC of Buryn City Council, Sumy region
- ☆ ASC of Slavutych City Council, Kyiv region
- ☆ ASC of Zaturtsi Village Council, Volyn region
- ☆ ASC of Boromlia Village Council, Sumy region
- ☆ ASC of Velyka Bilozerka Village Council, Zaporizhzhia region



"At one time, it was not easy to quickly abandon the usual methods of work. While testing the Vulyk system, some administrators simultaneously kept paper journals. But after making sure that the system is reliable, we completely switched to modern work methods. Automation really frees up time for strategic tasks and development."

#### OLGA SHILKO

Head of the Bobrovytsia City Council ASC Department results achieved by the EGOV4UKRAINE project will be largely used in the implementation of the EU-financed EU4DigitalUA project, which is also being implemented by the Estonian e-Governance Academy. The new project aims to increase the ability of government information systems to interact with each other and to increase the number of e-services.

"We are happy to be a part of the digital transformation of Ukraine since 2012. The EGOV4Ukraine project has created a solid foundation for further progress in this area. Our promise – to make data run, not people – has been fulfilled. Political will; technological solutions; and competent, endowed-with-new-knowledge public servants – all this guarantees the stability of the digital development of Ukraine."

#### HANNES ASTOK

Executive Director and Chairman of the Management Board at e-Governance Academy (Estonia)

