



Implementing Local e-Government Initiatives in Ukraine

eGA Project Publication

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1. Introduction

eGA Project Publications is a series of case studies based on the most prominent projects implemented by Estonian e-Governance Academy in close collaboration with its partners worldwide. They provide a quick overview of the projects, their main outputs and look at some of the faced challenges and lessons learnt.

The project “e-Governance Support to Ukraine” was aiming to share valuable experience in the field of e-government with Ukraine’s cities and regions. The implemented technical solutions are directed at improving the provision of services to citizens as well as enhancing the government’s efficiency, transparency and openness.

The project was funded by the Swedish International Development Cooperation Agency (SIDA) and Estonian Ministry of Foreign Affairs.

The project was implemented from September 2012 to April 2016.

e-Governance Academy is grateful for the fruitful cooperation to all project partners. We hope to provide our partners with even more encouragement and assistance in their future efforts towards e-governance.



Lviv city
council

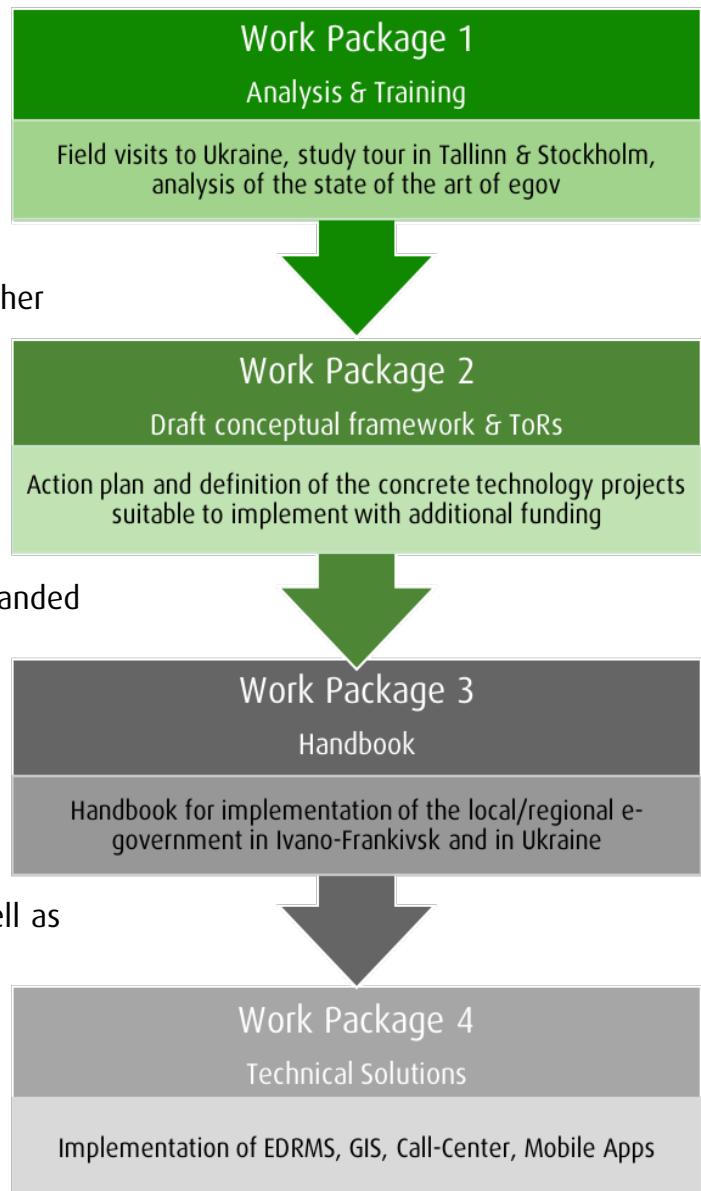


2. Project overview

The objective of the project “e-Governance Support to Ukraine” was to enhance the capacity of selected regions to implement ICTs for more efficient and transparent governance and local democracy as well as to create best practices for Ukrainian national level authorities and for further implementation of the process in other regions.

The project was launched in September 2012 with the initiative from Ivano-Frankivsk regional administration to foster e-governance in the region. It was later expanded and prolonged by the addition of the 4th work package on the implementation of technical solutions and by the involvement of the new beneficiary.

The project focused both on strategic support and training for local officials as well as on the implementation of technical solutions at the local level in Ukraine. Support included four areas:
Electronic Document Management System;
Multi-Channel Communication Center;
Geographical Information System;
Mobile Applications.



Stakeholders¹

➤ Donors

[The Swedish International Development Cooperation Agency \(Sida\)](#) is a government agency working on behalf of the Swedish parliament and government, with the mission to reduce poverty in the world. Sida contributes to implementing Sweden's Policy for Global Development (PGU).

[The Ministry of Foreign Affairs of Estonia](#) coordinates Estonia's development cooperation programmes. Development cooperation as an inseparable part of Estonia's foreign policy. It comprises both development and humanitarian aid and is directed towards securing peace, prosperity and economic and social stability.

➤ Implementing Partners

[The e-Governance Academy \(eGA\)](#) is a think tank and consultancy organisation founded for the creation and transfer of knowledge and best practice concerning e-governance, e-democracy, national cyber security and the development of open information societies. eGA trains and advises leaders and stakeholders in using ICTs to increase government efficiency and to improve democratic processes. Additionally, in cooperation with ICT-companies eGA assists in the implementation of e-government technical solutions. eGA has trained 3000 officials from more than 60 countries and led or participated in more than 60 international ICT projects on the national, local and organizational levels.

The implementation of the technical solutions implies the requirement to follow international procurement procedures. The project was implemented in close cooperation with the following private companies.

[Regio](#) is the oldest and biggest Estonian map publisher. Its highly detailed maps have found their way to mobile devices in the form of various native applications for Android, iOS and Windows Phone. Regio has provided either software or is service and content provider of almost all Estonian mobile location-based services. [The Datel Group](#) is active on three continents and empowers smart communities from the United States to Asia. Its e-government solutions include geoinfosystems, Urban Planning and Permitting Systems, Big Data Analysis and Visualization. [The Soft Xpansion](#) is a group of companies that has its offices in Vinnitsa (Ukraine) and in Bochum (Germany). Soft Xpansion Ukraine is a

¹ The information on the stakeholders is retrieved from the official websites of the partners.

development center for this group of companies and its partners. Their mission is to assist enterprises and institutions in developing and increasing their competitive advantages by implementing high-quality and advanced software technologies. [Effecta Solutions](#) is a Serbian company specialized primarily in developing information technologies. Core activity of the company is development of ICT solutions for complete communication service with citizens. Effecta Solutions has developed multi-channel communication system, named E-COMM, in order to improve municipality service by delivering to the citizens high-quality, personalized communication.

➤ **Beneficiaries**

The following cities and regions of Western Ukraine participated in the integration of components of e-governance through the initiative: Ivano-Frankivsk Regional State Administration, the City Councils of Ivano-Frankivsk, Kalush, Dolyna and Lviv.

[Ivano-Frankivsk Region](#) is situated in the southwest of Ukraine and has the population of over 1,3 mln people. It is rich in natural reserves and recreational resources, forests and mineral resources (oil, natural gas, brown coal). Ivano-Frankivsk Regional State Administration is the subnational tier of government at the regional level performing the functions of state executive bodies. The region has 15 cities, 5 of which are of regional subordination and 10 of district subordination, 24 urbanized settlements and 765 villages. [Ivano-Frankivsk City](#) is the administrative center of Ivano-Frankivsk Region and the city of regional subordination. The population of the city is over 250 000 inhabitants and it is actively developing the tourism realm as well as is one of the front-runners in Ukraine in terms of the provision of administrative services. [Kalush](#) is the city of regional significance and administrative center of surrounding Kalush District. It has the population of around 67 000 inhabitants and is situated 35 km from Ivano-Frankivks. It is one of the industrial centers of the region. [Dolyna](#) is the smallest beneficiary of the project. It is the city of district significance with the population of around 21 000 residents, situated 60 km from regional center. It is one of oldest cities in the region and it promotes itself as a touristic and cultural city. [Lviv](#) joined the initiative during the second phase of project implementation. This city with over 700 000 inhabitants is the largest city in the Western Ukraine. It is situated approximately 70 km from the Polish border and is considered to be one of the main cultural centers of Ukraine. Lviv is also well-known for its IT sector developments.



3. Project results

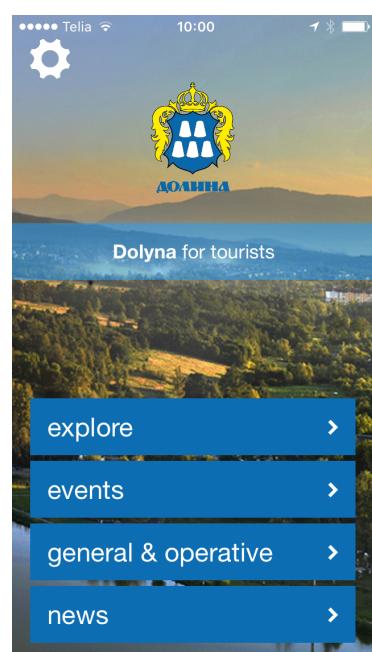
The **Study visit** of e-government leaders to Estonia and Sweden in January 2013 encompassed the 5-day training agenda that was focused on e-services and underpinned by a general overview of e-governance architecture. Topics of priority for the project areas (such as electronic document management system, geographical information system etc.) were also integrated into the program.

Mobile Applications enable the distribution of accessible, recent information to citizen and tourist smartphone users. They reduce administrative burden, increase the transparency of information and the capacity of municipalities to share available data through the use of modern ICTs.

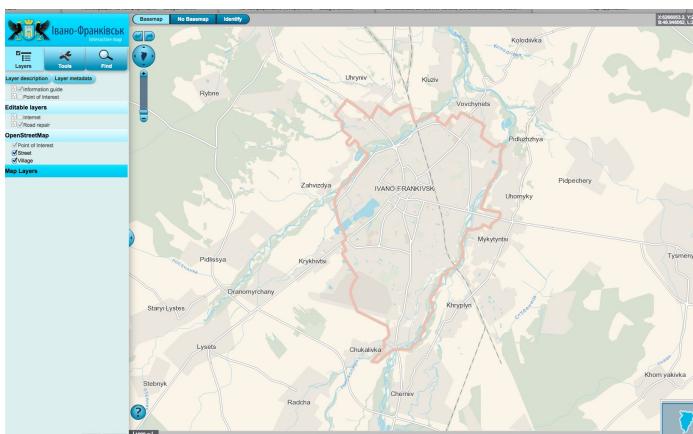
Among other features, the application provides general information about the city, municipality contacts, events and leisure time information, cultural and historical objects/sites, that are linked to the map solution, touristic routes and an audio guide.

Applications were implemented in the cities of Ivano-Frankivsk, Kalush, Dolyna by Regio.

The main purpose of **the Handbook** “e-Government Handbook for Ukrainian Municipalities - Practical Guidelines and Best Practices of Local e-Government” is to help local decision-makers to make informed policy choices and understand the practical challenges and opportunities brought with the introduction of local e-government.



Today's cloud-based technologies and agile project methods are well-suited for web-based Geographical information systems, even when local partners lack any previous experience in these methods. **Web-based GIS** is a tool that enables the capture, storage, analysis



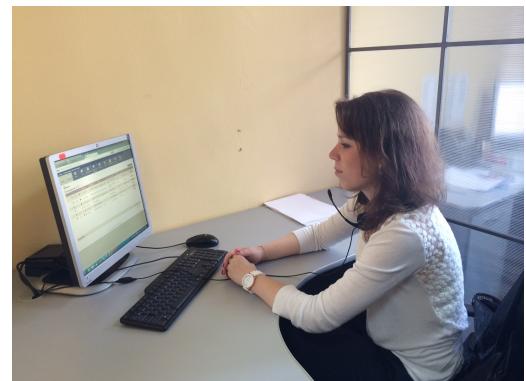
and presentation of various forms of geographical data. It is an easy-to-use and publicly accessible web map service for most urgent and prominent problem areas.

The solution enables sharing and aggregation of geographical information content between different municipal organizations. It

can also be used as a tool for public inclusion, C2G dialogue, content creation and crowd sourcing utilizing public GIS as media.

GIS was implemented in Ivano-Frankivsk by Datel.

The Multichannel Communication Center (Call-Center) a web application for electronic communication with citizens. It enables communication with citizens through different channels - SMS, email, phone, document. Questions and requests of citizens/public entities are recorded and typed into the system by the operator, who either forwards the request to corresponding institutions or provides the answer.



Call-Center is a promising measure for making city management more transparent, communicative and accountable. It enables better communication between city managers and citizens, improving the efficiency of the government as a whole.

The solution was implemented in Kalush by Effecta Solutions.

The electronic document and records management system (EDRMS) enables management of electronically created, transferred, approved, signed and archived documents. As a back-end service it will facilitate more efficient e-government services for citizens and provide an opportunity to re-design the administrative processes, reducing unnecessary bureaucracy. Lviv City Council with 32 units, 50% of which are geographically remote, is using the system having over 100 000 incoming documents per year. The city is advancing the system to connect over 1000 users and integrate EDRMS with other city IT developments.



The system was implemented in the City Councils of Lviv, Kalush, Ivano-Frankivsk and Ivano-Frankivsk Regional State Administration by Soft Xpansion Ukraine Ltd.

The final conference of the project “**ICTs for the Support of Decentralization Reforms in Ukraine**” took place in Lviv, where over 80 representatives of local and national governments and donor organisations gathered on the 17th of March 2016 in order to discuss the results of the project and to look forward to the upcoming decentralization reform.



The conference demonstrated the enthusiasm of Ukrainian local governments in the area of effective administrative service provision with the help of ICTs as well as their expectations towards coordination and support initiatives from the national government.

4. Implementation issues & lessons learnt

E-Government implementation requires a holistic approach that takes into account not only technological component, but also pays sufficient attention to fiscal, organizational and legislative frameworks. The following paragraphs will outline some of the issues and challenges encountered in the project along the lines of e-government implementation components. These are issues that need to be addressed during planning and implementation of e-government initiatives.



Figure 2. Components of e-Government Policy Development

Establishing the proper organizational framework might appear to be the biggest challenge when it comes to implementation of e-government initiatives of any kind. There are several issues that the organizational component usually encompasses. Our project demonstrated that the following issues proved to be important. First of all, **the active support by top political and bureaucratic management** is vital for any changes in the government to occur. We have seen this willingness to be present in all beneficiaries involved in the project. However, the long-term projects have to take into account the probability of any changes at the top management level, which correspondingly entails

additional communication costs in order to successfully implement the initiative. The positions of the head of Ivano-Frankivsk regional administration was held by four different officials during project implementation. The local elections in 2014 and 2015 amidst the prolonged Ukrainian crisis also brought some changes in Ivano-Frankivsk and Kalush top management levels. Taking into account the strong impact of top management decisions on organizational and fiscal components of e-government development, it is of utmost importance to keep lively frequent communication with the beneficiaries.

The active involvement of the top management is also crucial for ensuring **the clear division of responsibility for project implementation** since the project requires additional time and energy of the beneficiary. This additional burden has to be communicated by the top management to the employees that need to perceive the implementation of the project as part of their work routine. The latter appears to be one of the top priorities in successful implementation of e-governmental tools in our project.

Ensure the support by top political and bureaucratic management. It is up to the leaders to establish clear division of responsibilities for the project and create the perception of the project being part of the work routine.

Euromaidan and all subsequent events that began in November 2013, undoubtedly, had a profound impact on the initiative. It is important for the project partners to stay flexible and try to find the best possible solutions for the occurred challenges. For instance, one of the beneficiaries claimed to have considerable risks being banned by the state authority from using the e-solution platform on the basis of security issues. Because of the high risk of project discontinuity and failure of the usability of project results in future, all stakeholders agreed that the new platform should be found.

Yet, there are some difficulties that are hard to overcome. For instance, the problem of the lack of human resources is enhanced in the situation of the military conflict and might even endanger the continuity of the project implementation. Employees at both the national as well as the local level are most likely to be dealing with crisis management issues and hence, be unavailable for the project implementation. Small municipalities have always been constrained in terms of human resources. These local governments can, hence, encounter severe problems with the lack of technical staff or even its total disappearance due to the military conflict as was the case in one of the beneficiary municipalities.

Furthermore, it is essential for **all governmental levels** to be involved in the project. This might constitute a challenge in a relatively centralized state with very weak cooperation between governmental levels. For instance, in some cases the availability of the geographical data depends on the goodwill of the state authorities to share the data with the municipality. Hence, the relations between central and subnational governmental levels might substantially inhibit the implementation of e-government tools at the local level even when the local top management is actively engaged. The size of the municipality might be a crucial factor here, since larger municipalities usually possess much more data developed at the municipal level. However, for the proper e-government architecture to work at the national level, sharing data between governmental levels, which implies the creation of the mutual trust, is inevitable.

Another aspect is important when it comes to municipalities with large administrations and numerous agencies. The involvement of **different stakeholders inside administration** is required from the outset of the initiative. Document management system is the tool that is used by numerous employees from different departments with their own agendas. It is vital to involve all important stakeholders in the development of system requirements from the very beginning in order to avoid the protracting of the process.

It is important for all governmental levels and different stakeholders to be involved in the project from the outset in order to avoid the protracting of the implementation process

For sustainability of the e-government initiatives expenses for ICTs should be taken into account when the municipal budget is being formulated. **The fiscal commitment** of the beneficiary is especially crucial in such projects as EDRMS that involve the post-project expenditure on the maintenance of the system and any possible system readjustments and improvements.

Technical infrastructure is usually outside the scope of eGA's projects. It is, therefore, extremely important to ensure that the beneficiary is ready to contribute to **the provision of the needed technical equipment**. Employees should have the workstation equipped with basic hardware, software and the connection to the Internet.

5. Looking ahead

e-Governance Academy continues to support Ukraine in its e-governance development. Future projects will focus on the improvement of public service delivery in the Ukrainian local governments with the tools of the e-government according to the decentralization objectives.

It is vital to develop comprehensive and efficient ICT architecture to support the decentralized public service delivery in the local governments in cooperation with the national government level stakeholders. Supporting the development of information systems, data exchange and online service delivery in the Administrative Service Centres is the focus of our future work in Ukraine.