

**TERMS OF REFERENCE**  
**FOR: THE DEVELOPMENT AND IMPLEMENTATION OF THE URBAN DATA PLATFORM WITHIN THE**  
**EDINET Municipality**

**1. GENERAL INFORMATION**

<b>Country of application:</b>	Republic of Moldova
<b>Contracting authority:</b>	Edineț City Hall

**1.1. General information about the municipality of Edineț**

Edineț Municipality is the 11th largest urban center in the Republic of Moldova and is the administrative center of the Edineț district, which is one of the 32 administrative-territorial units of the second level in the Republic of Moldova, with an area of 932.91 km<sup>2</sup>.

The municipality of Edineț consists of Edineț and two nearby rural towns - Alexăndreni (4.5 km away) and Gordineștii Noi (6.4 km).

According to official statistics, Edineț has a stable population of about 20 thousand inhabitants, including:

- Or. Edineț – 18,400 inhabitants
- Alexăndreni village – 1,241 people
- The village of Gordineștii Noi – 303 people

The municipality of Edineț is designated as one of six cities - growth poles, in accordance with the National City Development Program - growth poles, along with the municipalities of Soroca, Orhei, Ungheni, Comrat and Căușeni. As a consequence of the concept of the municipality, Edineț is to develop as the economic center of the small northern region of the Republic of Moldova, polarizing the development of 4 administrative districts: Edineț, Dondușeni, Ocnița and Briceni.

The spatial development of the municipality is, rather, a vector one (along the main arteries). The locality is developed in the east of the main road M14 Brest-Briceni-Chisinau-Tiraspol-Odessa (E 583), along Independentei Street - the main artery of the locality.

Of the total area of the municipality, the largest share of land, 55.73%, is privately owned. They are owned by 9,280 natural and legal persons, on an area of 3526.87 ha. These lands can be used for different needs, such as the construction of residential spaces, the development of economic activities, recreational areas, etc. The share of private land in Edineț is slightly lower than the national average, which constitutes 56.1% of the total land. The lands in public ownership of APL have a smaller share, of 28.13%, or 1780.07 ha.

The urban area of the towns of Edineț, Alexăndreni and Gordineștii Noi occupies 1221.28 ha, which constitutes 19.30%, and the extra-urban area has 5107.53 ha or 80.7% of the total area of the municipality. Depending on the destination of use, most of the lands of the municipality of Edineț are agricultural, 3380.94 ha or 53.42% of the total area of the municipality. The lands of green spaces and

waters constitute 1270.58 ha or 20.08% of the total land, being higher than the national average. Land intended for the housing fund occupies 679.51 ha, which constitutes 10.74% of the total. Roads occupy 359.97 ha or 5.69% of the area of the Municipality

The situation in the urban development sector, the necessity and opportunity of digitizing local public urban management services:

Currently, the City Hall of Edineț, with the support of the Project "Edineț - city with a future perspective", financed by the European Union, is in the process of finalizing the General Urban Plan and the Urban Mobility Plan for the period 2023-2035. Both documents went through the public consultation procedure, and after the completion of the approval processes, they are to be approved by the Municipal Council.

## **2. OBJECTIVES, PURPOSE AND EXPECTED RESULTS**

### **2.1 Project objectives**

**The general objective** of the "Edineț - city with future prospects" project, within which this contract will be carried out, is to improve the quality of urban development, public services and the satisfaction of the residents of Edineț.

**The specific objective** of the project - the Municipality of Edineț will use intelligent solutions to improve the urban development of the city by:

- A participatory and collaborative approach to territorial planning to ensure the implementation of smart governance
- Optimized urban public services using innovative intelligent solutions adapted to the specific needs of Edineț.
- Promoting intelligent life in the urban area for better assimilation of innovations and future urban infrastructure for the sustainable use of urban space in the municipality of Edineț.

### **The object of the purchase**

The platform will serve as a single point to integrate, visualize, and manage public interest data and provide information related to a range of local/municipal public services, sensors, and systems using a single smart city data platform dashboard that will consider innovative solutions for infrastructure development and service provision, based on the specific context of Edineț and will allow the municipality to add and connect new SMART and sustainable technological solutions in the next stages of city development at the local level.

The platform will have to be placed on [www.smartedinet.md](http://www.smartedinet.md), the domain and the host are already contracted and paid for by the beneficiary - Edineț City Hall. The platform must be developed in such a way as to allow the subsequent connection to the E-APL Information System which is being developed by the E-Government Agency of the Republic of Moldova <https://egov.md/ro/node/39814>.

In the process of developing the platform, the Contractor must respect and comply with the latest Communication and Visibility Manual for External Actions of the European Union regarding the recognition of EU funding of the project. (See [https://ec.europa.eu/europeaid/communication-and-visibility-manual-eu-external-actions\\_en](https://ec.europa.eu/europeaid/communication-and-visibility-manual-eu-external-actions_en)).

Through the development of the platform, the implementation of an Electronic Services Web Portal (hereinafter referred to as "computer system") within the Contracting Authority - Edineț Municipality was considered. The development of the Information System implies its "turnkey" implementation. The IT system will include the following:

## 2.2 Tracked results

As a result of the development of the Information System, it is aimed to obtain the following:

1. SMART Edineț WEB portal that will contain:
  - Public Pages module
  - Participatory Budgeting module
  - The Citizen's Cabinet module
2. WEB Portal management system
3. Integrations with third-party systems:
  - interoperability with the public transport monitoring platform;
  - Interoperability with the general urban plan (<https://gislocal.md/#/viewer/openlayers/645>);
  - Interoperability with the video surveillance system of public spaces;
  - Interoperability with the map of environmental sensors.

## 3. DELIVERABLE

By concluding the contract, the following basic tasks/deliverables are planned:

Deliverable 1: Functional urban data platform;

Deliverable 2: Technical and user documentation;

Deliverable 3: Training and education of the staff of the Edineț City Hall.

Deliverable 4: Official release of the urban data platform.

Deliverable 5: Information system maintenance.

## 4. DEADLINE

Stage	Stage content	Terms
Stage I:	Development of the Information System	5 months maximum from the date of signing the contract
Stage II:	Information System Maintenance	Until February 2025

## 5. FUNCTIONAL REQUIREMENTS

The Information System will consist of 2 elements: the part for the users (Front-Office) and the administration element (Back-Office).

### 5.1 Front Office

Each section of the "Front-Office" is designed to be intuitive and easy to navigate, ensuring accessibility of information and services of public interest, which can be accessed in an efficient and effective way.

**The Smart Edinet WEB portal** must contain the following modules:

#### **Public Pages module**

- Home:
  - Displaying a summary of the latest news, events and information relevant to citizens.
  - Includes links and easy navigation to other parts of the website.
- About the project:
  - A presentation of the objectives, mission and vision of the project.
  - It includes information about expected benefits and impacts on the community.
- User Support Section:
  - FAQ: A list of frequently asked questions and their answers to assist users.
  - Live Chat: A live chat service to provide real-time support to users.
- Institutional:
  - Information and links to partner and collaborating institutions, such as local operators and local authorities.
- Subscribe to Public Interest Notices:
  - Allows users to receive notifications and alerts on topics of public interest, such as roadworks or utility grid interventions.

#### **Participatory Budgeting module**

- Home:
  - An overview of participatory budgeting, including proposed projects and their status.
- Submission of project/ideas:
  - A form/questionnaire or system through which (authenticated) citizens can express and submit their ideas for the betterment of the community.
- Voting project/ideas:

- A voting system where (authenticated) citizens can express their preferences for projects proposed by other community members.

### **Useful public information module**

This module involves viewing published data sets, grouped by domain, with city maps as graphic support, such as:

- Public transport - with the display of station-specific data, respectively of other routes starting from the point of departure to the destination;
- Environmental information (air, water, waste);
- Information on paid parking spaces;
- Information regarding the general urban plan;
- Access to video cameras intended for public access.

The retrieval of specific information will be achieved by ensuring interoperability with:

- Interoperability with the public transport monitoring platform;
- Interoperability with the general urban plan;
- Interoperability with the video surveillance system of public spaces;
- Interoperability with the map of environmental sensors.

### **Citizen's office**

The user will be able to log in with his personal email address as a username and password provided by the public institution.

In the integrated platform, there will be a possibility for the authenticated user to change his password. The account of the user who has not accessed the account for more than a year will be deleted from the platform.

### **Account creation and user authentication**

The system will aim to ensure the identification and authentication of users for the use of electronic public services in an easy manner. At the same time, the system will enable the two-step authentication of users of the electronic services portal and the recovery of passwords in case of loss.

Registration/Login will define:

- Allowing users access to a personalized account where they can directly interact with various website functionalities, such as voting on projects.
- Options to reset your password and manage your profile.

### **The personal information sheet of the authenticated user**

The online service will allow access to the system by consulting a web page at any time interval - 24 hours a day and 7 days a week. It will be accessed only by users who are authenticated in the system. In this layout, all the information related to the authenticated person and which can be found in the database of the IT system used by the Edineț City Hall will be displayed.

Within the office, users will be able to download the applications in editable format, with the instructions to follow in order to obtain the relevant document:

- The urban planning certificate for the design;
- Informational urbanism certificate;
- Building permit;
- Termination Authorization;
- Authorization to change the destination of constructions and facilities;
- Notification regarding the initiation of trade activity;
- Authorization to place outdoor advertising;
- Perfecting the characteristics of the place of living;
- Certificate of Family Composition;
- The certificate regarding the absence or existence of debts against the local budget;
- Confirmatory certificate of ownership of the share of agricultural land and the peasant household;
- Certificate regarding the lack of soil calcium;
- Release of copies and extracts from the archive;
- Declaration of receipt/deletion in/from the residential space;
- Establishing custody of children whose parents are abroad;
- Burial certificate.
- Other certificates according to national legislation.

## 5.2 Back Office

The "Back-Office" is essential for maintaining and managing the platform, ensuring that everything works correctly, is updated and secure, and that users have a smooth and productive experience interacting with the digital platform.

### Content management

- **User account management:**

Functionality that allows administration to view, edit or delete user profiles. This may include changing personal information, resetting passwords and adjusting security settings.

- **Pages management**

The functionality that allows the administration to create and update web pages, add new content, edit or delete existing content.

- **Form management**

A utility that allows the creation of custom forms for collecting data and feedback from users, such as contact, registration or project submission forms.

- **Voting management**

A tool that allows the creation and management of voting processes, such as those for participatory budgeting, allowing citizens to vote on different projects or ideas.

- **Management of announcements/alerts**

A functionality that allows the posting of urgent notices or alerts to inform citizens about various situations or events.

- **Interoperability with the public transport monitoring platform**

It provides a seamless connection with public transport monitoring systems to display real-time information about routes, timetables and other relevant details.

- **Interoperability with the general urban plan**

Integration with systems that manage and store data related to the city's general urban plan, allowing access to up-to-date information.

- **Interoperability with the video surveillance system of public spaces**

Connection to surveillance camera systems to provide access to live images or recordings from public spaces.

- **Interoperability with the map of environmental sensors:**

Integration with systems that collect and process data from environmental sensors to provide up-to-date information on air quality, noise levels and other ambient data.

- **Chat integration for user support**

Integration of a live chat system to provide real-time support to website users, answering questions and providing necessary assistance.

### **Updating existing IT systems**

The systems provided must be interconnected with the existing IT systems within the Contracting Authority and be complementary to them, ensuring optimized data and information flows between them.

The winning bidder will ensure the integration of the delivered software products with the existing systems.

The IT solution will have to comply with the following rules:

- **Addressability:**

The platform will be designed to digitize the internal processes that are responsible for the provision of offline and online services, transforming them into more efficient and easily accessible procedures for citizens.

- **Scalability:**

The platform must be able to handle an ever-increasing volume of users and services without compromising performance. It should be flexible, allowing the addition of new functionality and services, and capable of supporting a minimum of 10,000 registered beneficiaries.

- **Interconnection:**

The platform should allow easy connection with other IT systems, whether local or national, using web services and interfaces based on open standards to ensure a continuous flow of data and information.

- **Availability:**

The public portal must be accessible around the clock, ensuring citizens access to services at all times. The management panel should be available during the institution's working hours, with a clearly defined maximum acceptable interruption time.

- **Efficiency:**

Through digitization, citizens should be able to access information about services without the need to physically travel, making processes faster, and more efficient and removing the time constraints associated with traditional working hours of institutions.

- **Effectiveness and Transparency:**

The platform will allow citizens to track the status of projects, submit applications for new projects, and receive information, thus increasing the level of transparency and effectiveness in interacting with the authorities.

- **Protection of personal data:**

Protecting and securing citizens' information is essential. The Platform will comply with all relevant laws and regulations to ensure the privacy and security of users' personal data.

**Other requirements:**

- Computer system applications must use the Romanian language, with diacritics, for all menus, screens, error and warning messages, documents, and application reports accessible to the end user.
- To have a unified front-end and back-end data entry validation system. The applications will ensure the quality of the data entered through validation procedures (by defining mandatory fields, the format accepted for certain fields, possible values or ranges of values for certain fields, etc.), as well as by checking and warning users about incompatibilities or contradictions between records.
- The system must allow easy navigation in and between modules, as well as access to all functions and commands to which the user has been granted rights within the same work session,
- Database query requests that have a large number of result data must benefit from mechanisms for managing the results provided so that a restricted set of data arrives on the client's computer.
- Filters and sorting will be used so that the beneficiary sees the most important data.
- Once logged into the system by the authentication mechanism, as long as the user does not close the browser or the session expires, the user will be considered authenticated and will have access, according to the trust level associated with his account, to all available applications without having to follow the authentication process again.
- The operating interface, use, administration related to the application will be web (internet browser),



- Techniques such as value picklists will be used to enter information from the value dictionary(s).
- Standardization creates a solid foundation for managing system growth by ensuring the integration of processes/applications and technologies across the organization. The system must avoid data loss, in this sense it is necessary to have crash recovery capabilities and implement ways to prevent them.

The system must comply with good practices, national legal provisions and European norms (regulations and directives) in the field of electronic identity, personal data protection and Cyber security. The security of all computer system interfaces will be ensured, preventing unauthorized users from accessing the system. Administration functionalities will be provided to allow granting or revoking access rights, access to information based on access credentials. The integrated IT system must allow for future extensions (eg, the ability to add new modules, new functions, new reports, new security roles, etc.).

**Maintenance services**

The provider will provide post-implementation support services until February 2025. During this time, support will be available on weekdays during the business hours of the Edineț City Hall, through a web problem registration system and by phone. Troubleshooting will begin after the bug is reported, according to the following severity table:

<b>Severity level</b>	<b>Description</b>	<b>Initial Response by Provider (hours)</b>	<b>Maximum deadline for online intervention (hours)</b>	<b>Time to solve the problem (hours)</b>
1	Critical system error, system is not functional.	1	1	4
2	Some features or system components are not functional.	2	2	8
3	Some functions are limited but operational.	4	2	24
4	Minor issues, system is operational.	6	3	48

Bidders will prove their ability to intervene online within the established deadlines.

**6. REQUIREMENTS FOR THE PREPARATION OF THE OFFER**

The offer must include a project implementation plan that meets the phasing requirements and falls within the project implementation deadlines. Offers that do not present an implementation plan in accordance with all the information provided in the specification will be considered non-compliant.

The work plan (meetings, meetings) will be presented. The work plan shall present a breakdown of the contract activities, including at least the following details:

Contract implementation GANTT chart detailing at least the following stages:

- For the activity of providing information systems
  - ❖ Analyze
  - ❖ projection
  - ❖ Development
  - ❖ Implementation and functional testing
  - ❖ Acceptance testing
  - ❖ Entering production
  - ❖ Post-implementation technical support
- For user training activity
  - ❖ Elaboration of the training agenda
  - ❖ Preparation of materials for participants
  - ❖ Actual training
  - ❖ Handing over the training documentation to the Edineț City Hall
- The activity calendar will be presented, with the identification of all activities carried out within each day of the contract
- The network diagram will be presented, marking the interdependence of activities and their logical sequence.
- The project schedule will be presented in a Time Line format, with all activities and related periods marked.
- The training methodology for system users (for internal users of Edinet Municipality) will be presented .

Bidders will present the way of integration with the existing systems and demonstrate the technical, organizational and legal capacity to modify the existing solutions, as well as present in detail the technical way in which the electronic services provided will interact with the existing systems.

Bidders will present at least the following work methodologies, under penalty of exclusion from the procedure:

- The software development methodology used, detailing at a minimum the following stages: analysis, design, development, implementation and functional testing, acceptance testing, going into production, and technical assistance and post-implementation support.
- User training methodology.

Bidders will present the personal data protection policy regarding at least the informational tools delivered and the training activity.

The training location will be made available by the Edineț City Hall.

The project team will be presented detailing the roles of each team member, both during the contractual period and in the post-implementation and technical support stage.

### **Intellectual property rights**

All documents that will be developed in the execution of the Contract (deliverables, studies, analyses, reports, plans, procedures, methodologies, training and presentation materials, etc.) will be subject to property rights (including but not limited to copyright and/or any other intellectual property rights) of the Contracting Authority, which may use, publish or transfer them as it deems necessary, without any geographical or other limitation.

The Provider grants to the Purchaser unlimited and perpetual licensing of all deliverables with source code transfer and deliverables (in processed/editable form) with the possibility of further modification by the Purchaser without restrictions. The purchaser may use them as he deems necessary.

The provider undertakes to protect all trade secrets and information and know-how acquired during the performance of this contract.

The ownership of the data that will be stored in the computer system will belong entirely to the Purchaser.

## **2.8: Legislative and Regulatory Framework**

The legal and regulatory context governing the design and operation of the platform must comply with:

1. Law 982/2000 on access to information.
2. Law 4358/2006 on administrative decentralization.
3. Law 436/2006 on local public administration.
4. Law 71/2007 on registers.
5. Law 239/2008 on the transparency of decision-making processes.
6. Law 133/2011 on the protection of personal data.
7. Law 91/2014 on electronic signature and electronic document.
8. Law 100/2016 on normative acts.
9. Law 151/2017 on the address system.
10. Law 142/2018 on data exchange and interoperability.
11. GD 710/2011 regarding the Strategic Program for Technological Modernization of Government - Transformation.
12. HG 656/2012 regarding the Interoperability Framework Program.
13. HG 1090/2013 regarding the government electronic authentication and access control service (MPass).
14. HG 128/2014 regarding the shared governmental technological platform (MCloud).
15. HG 405/2014 regarding the integrated electronic government electronic signature service (MSign).
16. GD 701/2014 regarding the methodology for publishing open government data.

17. HG 708/2014 regarding the government electronic service for journaling (MLog).
18. HG 201/2017 regarding the mandatory minimum requirements regarding cyber security.
19. HG 114/2017 regarding the Regulations for the application of electronic signatures on electronic documents by the staff of public sector organizations within their electronic flows.
20. HG 414/2018 regarding measures for the consolidation of data centers in the public sector and for the rationalization of the administration of the state information system.
21. HG 241/2019 regarding the interoperability platform (MConnect).
22. HG 376/2016 regarding the concept of the government electronic notification service (MNotify).
23. HG 1123/2010 regarding the approval of the requirements for ensuring the security of personal data during their processing by computer systems.

## **2.9: Warranty**

The consultant will provide a 12-month warranty for the developed solution. The warranty period begins after final release. During the development and warranty period, the Consultant will remedy any identified defect.

Development and operations must comply with the legal documents and regulations listed in chapter 2.8.

## **2.10: Risks**

The contract will have to consider the risks that may affect the process of implementing the tasks, such as:

- Perpetuation of the global COVID-19 pandemic
- Limited ways of informing the general public
- The need for collaboration and interconnection with other central and local public institutions
- Other risks that can affect the proper performance of tasks

## **3: PROJECT MANAGEMENT**

### **3.1: Responsible Authority**

Responsible for coordinating the implementation of the contract is the implementation team of the Project "Edineț - city with a future perspective", financed by the European Union. The project office is located at the address of Edineț municipality, 74 Independenței str.

### **3.2: Management structure**

Responsible for process and contract coordination is the project's local government expert and project manager. The signing of the documents within the contract and the final decision belong to the mayor of Edineț.

### **3.3: Facilities granted by the contracting authority**

The project will provide the contractor with the project office equipped with video conferencing equipment and system, Internet with a minimum speed of 200 Mbps, and a printer.

## 7. ELIGIBILITY REQUIREMENTS

### 7.1 Minimum Institutional Eligibility Requirements

#	Criterion	Minimum eligibility requirements
1	Legal status	The company specializes in the development of IT solutions.
2	Minimum experience in providing similar services	The company will have at least three experiences/contracts/projects of developing systems for local or governmental interest.

*Note: failure to fulfill the above requests leads to the disqualification of the bidder*

### 7.2 Team

For proposed key experts the CVs need to be submitted, demonstrating the minimum qualifications requirements, as detailed below:

#### *Project Manager:*

- University degree in Computer Science or another relevant domain
- At least 7 (seven) years of professional experience in the field of project management at implementation of complex software solutions
- At least 3 (three) similar successfully completed ICT projects with similar complexity, in project management role throughout the entire duration, proven by brief descriptions of project scope and outcome, and proofs of completion.
- Internationally recognized project management certification such as PMP, PRINCE2, AGILE or equivalent.
- Work experience of at least 3 (three) years within the bidder company.
- Fluency in English and Romanian.

#### *Senior software developer :*

- University degree in Computer Science or another relevant domain
- At least 7 (seven) years of experience in the design, software development and implementation of complex software platforms.
- Proven experience in at least 2 software development projects in the last 3 years using agile approach
- At least 3 years of experience in software development using requested technologies.
- Certifications in any technology from the required technology stack is an asset
- Ability to communicate in Romanian or English

#### *Software developer :*

- University degree in Computer Science or another relevant domain

- At least 3 years' experience in software development
- Proven in at least 2 software development projects in the last 3 years using agile approach
- At least 3 years of experience in software development using C#, Entity Framework, ASP.NET Core, SQL Server.
- Certifications in any technology from the required technology stack is an asset
- Ability to communicate in Romanian or English

*Software analyst :*

- University degree in Public Administration, Computer Science or another relevant domain
- At least 5 years' experience in system analysis or software development
- Participated in at least 2 software development projects in the last 3 years using agile approach
- Experience in public administration or software projects for public administration is an asset
- Certifications in any technology from the required technology stack is an asset
- Ability to communicate in Romanian and English

*Software tester :*

- University degree in Computer Science or another relevant domain
- At least 3 years' experience in software testing in projects of similar complexity
- Proven experience in software testing analysis and design
- Proven experience in automated testing
- Proven experience in performance (load and stress) testing
- Proven experience in security testing
- Certification in testing or any technology from the required technology stack is an asset
- Ability to communicate in Romanian or English

*DevOps:*

- University degree in the field of Computer Science and/or Information Technologies or similar.
- At least 3 (three) years of overall professional experience in database design, development, and administration.
- Advanced knowledge on databases' performance optimization and database security.
- Professional certification in the Database technology on which the bidder's proposed solution is based.
- Fluency in Romanian.

## **5: REPORTING**

The contractor will send the following reports in Romanian in a single original:

- The Initiation Report that aims to be produced after a maximum of 1.5 months from the beginning of the implementation of the contract and a maximum after the completion of the analysis stage (first stage). In the report, the contractor must describe the results of the analysis phase, the initial findings,

any difficulties encountered or expected in addition to the work schedule and staff movements. The contractor should continue its work unless the contracting authority sends comments on the initial report. The initial report will form the basis for the first payment under the contract.

- Progress reports after stages 2, 3 and after the completion of the contract, where the activities carried out will be described. Reports must be submitted no later than 10 days after the completion of the stage. Progress reports will form the basis for interim payments and will be accompanied by minutes and fiscal/financial invoices.

- The Final Report will be presented in a short form (the main implemented activities, challenges, proposals and recommendations regarding the process of implementation and updating of the elaborated plans will be described), where the lists of participants in the working group activities and consultations will be attached organized in the elaboration process. The final report will be accompanied by the deliverables established in the contract, the minutes and the fiscal/financial invoice, which will form the basis for the payment of the final payment under the service contract.

#### **Submission and approval of reports**

The reports will be submitted in electronic format, signed, scanned in PDF format and sent to the electronic address of the project in the name of the project manager, which will be initially approved by the project manager and finally by the mayor of Edineț.