

TERMS OF REFERENCE

National Consultant in semantic interoperability area

Job title: National Consultant
Duty station: Chisinau, Moldova
Reference to the project: Democracy Programme / Elections
Contract type: Individual Contract (IC)
Expected workload: 105 working days within 6 months assignment
Starting date: 6 July, 2015

1. BACKGROUND:

UNDP Moldova Democracy Programme/Elections (further referred as Programme) is a multi-year institutional development programme that supports strategic development of the Central Electoral Commission of Moldova (CEC) with the aim to strengthen the capacity of electoral administration to deliver professional, transparent and efficient electoral processes. Overarching goal of the Programme is to improve the democracy in Moldova through modernization of the electoral processes, through free and fair elections representing the will of the people and which are fully in line with the international standards and best practices.

The Programme also shall provide support to the Government of Moldova and different ministries on development of special key registers and improvement of data interoperability to improve the overall quality of population register data for the purposes of improving the quality of voter register data. As part of this activity the Programme intends to provide support to the Government and relevant line ministries on development of other key registers and necessary interoperability framework to exchange data among the Population Register, Register of Civil Status Acts, Official Address Register and other key registers.

The Government of the Republic of Moldova has launched the implementation of the Governance e-Transformation Agenda in Moldova. The Governance e-Transformation is designed to increase efficiency and quality of a selected range of public services to citizens and businesses and improve management of the public sector through ICT. The core enabler of this initiative is the Government data exchange and interoperability framework. One of the main actions established in the interoperability framework program is the implementation of the Interoperability Platform MConnect, which is facilitating data exchange at the technical level.

In this regard, the Programme intends to contract a national consultant to assist with the defining of the entities and classifiers/dictionaries used in the process of data exchange and interoperability of government/state registries and databases. Named entities and classifiers will be further integrated in the semantic catalogue to be used by ministries and government agencies in exchanging data through the Government Data Exchange and Interoperability Platform MConnect.

Development of classifiers/dictionaries used in the process of data exchange (interoperability) among the key registers is important to ensure required official documentation for the necessary regulatory basis for the interoperability framework program.

2. **OBJECTIVES:**

The Programme intends to contract an experienced national consultant ("Consultant") to provide the Programme, the e-Government Center and other governmental institutions the necessary support in semantic interoperability area.

Specifically, the Consultant will:

- Review the legal framework related to national informational resources;
- Organize meetings and interviews with owners of the national informational resources and other relevant stakeholders in order to identify key entities, classifiers/dictionaries and their relationships;
- Develop domain models based on collected information;
- Develop and document XSD schemas for identified entities and relationships;
- Develop and document identified classifiers/dictionaries;
- Publish the definitions in the Semantic Catalogue.

3. **KEY DELIVERABLES AND TENTATIVE TIMETABLE:**

No.	Key deliverables:	Indicative Timetable
1.	<u>Preparatory Work:</u> <ul style="list-style-type: none">• Inception study of available information including national and International experience and best practices• Preparation of a detailed work plan to be applied for respective assignment	July 2015
2.	<ul style="list-style-type: none">• Develop an administration and operation model for semantic catalogue (concept and regulation)• Detailed analysis of the Semantic Catalogue functionalities and suggestions for technical improvement	July – September 2015
3.	<ul style="list-style-type: none">• Domain models reflecting existing formal entities and their relationships for the following Governmental data sources developed:<ul style="list-style-type: none">▪ State Population Registry (Registrul de Stat al Populatiei)▪ Registry of Addresses (Registrul Adreselor)▪ State Registry of Legal Entities (Registrul de Stat al Unitatilor de Drept)▪ State Registry of Transport Units (Registrul de Stat al Unitatilor de Transport)▪ Real Estate Registry (Registrul Bunurilor Imobile)▪ Fiscal Registry (Registrul Fiscal)▪ e-visa System (classifiers for MD visas)	July – October 2015
4.	<ul style="list-style-type: none">• XSD definition of the entities and classifiers/dictionaries used in the above data sources documented and published• Integrated and updated domain models	November – December 2015
5.	<ul style="list-style-type: none">• Information and training materials developed for Semantic Catalogue	October – December 2015

All deliverables should be agreed with e-Government Centre and the Programme and be provided in Romanian hard and electronic copy.

4. **INSTITUTIONAL ARRANGEMENTS:**

The assignment shall be performed under the direct supervision of the UNDP Senior Project Officer and in close cooperation with designated e-Government Centre staff. Deliverables of the Consultant will be approved by the UNDP Electoral Specialist.

The timeframe for the work of the Consultant is planned between 6 July and 24 December 2015. During this 6 months period the consultant is expected to work full time, 105 working days.

The consultant will be required to fill in a monthly time-sheet indication of activities for each day worked. Payments shall be done upon submission and certification of the deliverables as follows:

Deliverable 1	– 10%
Deliverable 2	– 30%
Deliverable 3	– 30%
Deliverable 4	– 10%
Deliverable 5	– 20%

The Consultant will not be provided office space in the premises of e-Governance Center but will be invited for meetings, discussions and drafting sessions as required. The Consultant is expected to work closely with the e-Government Centre staff.

5. QUALIFICATIONS AND SKILLS REQUIRED:

- I. Academic Qualifications:
 - Bachelor's degree or higher in ITC, Public Administration, Law or other relevant field;
- II. Knowledge and Experience:
 - At least 2 years of experience in dealing with domain modeling and data structure definitions;
 - Previous experience in working with Moldovan Central Public Administration institutions;
 - Familiarity with semantic-related technologies and standards, such as ISO/IEC 11179, NIEM, RDF, OWL or others;
 - Knowledge of the EU Interoperability Framework for Pan-European Services;
- III. Competencies:
 - Good analytical skills and experience in domain data modeling;
 - Good knowledge of Unified Modeling Language;
 - Good knowledge of XML and related technologies, especially XSD and good XML validation practices;
 - Familiarity with the Government Interoperability Framework Program (Government Decisions No. 404 and No. 656);
 - Knowledge of Romanian and Russian (verbal and written) is a must. Knowledge of English will be a strong advantage. Knowledge of one or more additional languages relevant for Moldova, including Bulgarian, Gagauzian, Romani, Ukrainian or sign language is an asset;
- IV. Personal qualities:
 - Responsibility;
 - Attention to details.

6. DOCUMENTS TO BE INCLUDED WHEN SUBMITTING PROPOSALS:

Interested individual consultants must submit the following documents/information to demonstrate their qualifications:

- a. Proposal: explaining why they are the most suitable for the work including past experience in similar Projects (please provide brief information on each of the above qualifications, item by item);
- b. Financial proposal (in USD, specifying a total requested fee per day, including all related costs, e.g. fees, phone calls etc.);
- c. Duly completed P11 form, personal CV and at least 3 references.