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## TERMS OF REFERENCE

Job title:	<b>International Consultant to provide assistance in the implementation of the SMART Component, including SMART City Concept and Roadmaps for Ungheni and Cahul Municipalities</b>
Duty Station:	Home-based, with 3 missions to Ungheni and Cahul Municipalities if the pandemic conditions allow
Section/Unit:	EU4Moldova: Focal Regions Programme (EU-funded)
Type of Contract:	Individual Contract
Starting Date:	February 2022
Duration of Assignment:	February 2022 – June 2023, 100 working days

### Job Content:

#### I. BACKGROUND

The EU4Moldova: focal regions Programme (*hereinafter the Programme*) is based on the European Commission Implementing Decision on the Annual Action Programme 2018 in favour of the Republic of Moldova and is funded by the European Union and implemented by the United Nations Development Programme.

The overall objective of the five-year Programme is to strengthen the economic, territorial and social cohesion in the Republic of Moldova through smart, green, inclusive, sustainable and integrated local socio-economic growth as well as by improving the standards of living of the citizens in the focal regions of Cahul and Ungheni.

To this end, this Programme will address also the urban-rural divide as well as regional disparities, stimulate economic growth and job creation, refurbish and upgrade some social and technical infrastructure in selected areas (smaller towns and villages) while taking into account climate change and a gender perspective in the activities of the Programme.

Specific objectives:

1. To strengthen transparency, accountability of local public authorities and citizen participation in local governance processes in the focal regions.
2. To improve citizens' access to quality public services and utilities in the focal regions.
3. To create employment opportunities for men and women in the pilot focal regions and improve the attractiveness of the pilot regions for investors and entrepreneurs.
4. To promote the smart specialization of the economy of the focal regions through the development of the clustering and value chain approach in key economic sectors.

The Programme objectives will be achieved through measures targeted at: (i) capacity building to support the implementation and monitoring of local economic development plans; (ii) civil society engagement in local planning, governance processes and basic social service delivery; (iii) provision of investment funding in support of the creation and/or development of social and technical infrastructure which, combined with the outcomes from interventions (i) and (ii) above, will have an

immediate, visible and tangible impact on employment creation, the standard of living of the population in the focal regions.

## II. SPECIFIC CONTEXT

Cities are the closest administrative actor to citizens and businesses, and they are leading and informing global policy efforts. It is estimated that, in order to be achieved, 110 of the 169 Sustainable Development Goal (SDGs) targets will require some direct engagement from cities or local government authorities. SDGs are the UN's blueprint for a more sustainable future for all and aim to leave no one behind. The specific challenges and future objectives of urban areas are included in SDG11 - Sustainable Cities and Communities. However, each of the 17 SDGs are relevant to cities and to SMART cities. True SMART Cities offer governments (local or central public authorities) and citizens the potential to solve their most pressing challenges and work towards achieving the bold targets set out in the SDGs.

Cities that use innovation and technology in initiatives to improve their citizen's lives are successful in responding to global challenges. Any city can be a 'smart city' if it adopts a citizen-centric approach and responds to both current and future needs and realities of its citizens and residents, while strategically mobilising available resources<sup>1</sup>.

As the closest administrative actor to individuals and businesses, cities of Cahul and Ungheni need to quickly adapt to new situations. Technologies and innovation being powerful enabler of this adaption.

Cahul<sup>2</sup> and Ungheni<sup>3</sup> are small and medium-sized cities. Thus, according to the Republic of Moldova legislation these cities have certain competences and roles, including public services provision. Public sector innovation is a multi-dimensional effort, and SMART development and technology plays a crucial role in the generation and dissemination of innovation at the LPAs level. The internet<sup>4</sup> and other digital technologies<sup>5</sup> have proved to be powerful enablers of innovation, changing the way governments innovate. However, at the local level still most of the administrative public and communal services are traditionally provided, and a lot of procedures are cumbersome, bureaucratic, or obsolete.

Within the latest years, Moldova benefitted from the support from different donors<sup>6</sup> organizations aiming to contribute to the country's development<sup>7</sup>. Moldova government<sup>8</sup> has applied an integrated approach to reform governance and public service delivery through business process simplification and digitization, institutionalization of innovative initiatives and practices, policy and legal redesign, capacity building and knowledge sharing across the government, communication, and awareness

<sup>1</sup> UNDP 2021, Handbook on Smart Urban Innovations

<sup>2</sup> [Cahul | Pagina web oficială a Primăriei oraşului Cahul](#)

<sup>3</sup> [Ungheni | Pagina web oficială a Primăriei oraşului Ungheni](#)

<sup>4</sup> [Business Internet Access Services In Moldova | Brodynt Global](#)

<sup>5</sup> [Digital Moldova 2020 | Ministry of Economy and Infrastructure \(gov.md\)](#)

<sup>6</sup> [Fact Sheet: Moldova ICT Excellence Center | Fact Sheet | Moldova | U.S. Agency for International Development \(usaid.gov\)](#)

<sup>7</sup> ICT Companies [ATIC \(ict.md\)](#)

<sup>8</sup> [e-Government Agency \(egov.md\)](#)

building. Diverse initiatives launched and financially covered by the donors<sup>9</sup> organizations at the central or local level<sup>10</sup> have a focus on digital transformation or SMART development, aim at improving user experience, implementing innovative practices and tools for service delivery.

In anticipation of this necessity, the modernization and transformation of the local governments' processes and service delivery through SMART elements has gained ground in the EU4Moldova: focal regions Programme as well.

Digital transformation for the two focal regions will be key to operational efficiency, public safety, economic strength and sustainability, improved livability, and appeal for new investment and talent. Yet these efforts are often complex and challenging, especially with the growing number of connected services, systems and devices, and their data. The choices are many and can be overwhelming. Often this results in an ad-hoc solution approach leading to implementation silos, duplication, and significant administration overhead and cyber-security risks. A different, more strategic, and innovative approach is needed, based on a proven and secure digital transformation architecture that can meet today's needs and scale for future projects of both focal regions.

*SMART City Concept and Roadmaps for the SMART sustainable city implementation.* Every region, city or municipality is different, with different challenges and a different culture - for cities to become really smart they must embrace their unique context. Each region/city therefore develops its own smart vision, to use smart the local resources and technology, but preserving the regional, urban, or rural identity.

In 2020 the Local Public Authorities (LPAs) of Ungheni and Cahul municipalities were assisted in elaboration of the SMART City Concept and Roadmaps for the SMART sustainable city implementation. The local Roadmaps further being used to design IT infrastructure backbone for the digital transformation of the two focal regions, thus, including description of the reference model of the main components (i.e. infrastructure, communication, sensors, open data platforms, applications).

To facilitate SMART integrated development in a short, medium, and long term, the above-mentioned documents envisaged clear implementation methodologies, indicators, and timelines, describing necessary actions to be undertaken for the digital transformation of Cahul and Ungheni into SMART sustainable cities, also including the activities to cover neighbourhood communities or entire region. Jointly with the LPAs the key pillars for the Smart City framework were identified: *SMART Mobility, SMART Built Environment, SMART Utilities and Public Infrastructures, SMART Public Services, and Programme Activities.*

The proposed SMART Roadmaps have identified a framework that provides a holistic view of the functions of the city and region, and how these can be focused to address the strategic objectives: Skills development, Sustainable Development Goals (SDG), community engagement, and infrastructure and services development. Through consultations with local and national stakeholders, international best practices, and mapping to current and planned activities across each region, along with new ideas that have emerged from these sources, a portfolio of activities is proposed. These

<sup>9</sup> [MiLab | UNDP in Moldova](#)

<sup>10</sup> [EU4MOLDOVA: start-up city Cahul | EU4Digital \(eufordigital.eu\)](#)

SMART activities are shown to fit into a core pillar of the functions of the city and region (Public Services, Mobility, Built Environment, Utilities and Public Infrastructures, Program Activities), which are then identified by the timescales that they can be delivered on. The selection of projects is intended to be ambitious, beyond the current planning, provide an opportunity to develop further, and reflect the opportunities for open information flows, interconnected public infrastructure, digital services, and reflecting the spatial requirements of the region from villages to towns, and the central municipalities.

*Perspectives on Cahul and Ungheni as a Smart City and Region.* The potential for wider community engagement, developing the connections between education and business, in the fields of citizen engagement, skills and entrepreneurship can provide some early-stage activities, that can feed into the strategic plans around public service, public placemaking initiatives, urban and inter regional mobility systems, utilities and physical infrastructures.

The prior, current, and planned initiatives in Cahul and Ungheni municipalities and region provide great opportunities to develop Smart Cities initiatives, to leverage these already established investments. These projects serve as strong guidance to the prioritisation that has taken place over the last decade, and where attention needs to reside in the delivery of the Smart Cities conceptualization.

The ambitious approach for the transformation of Cahul and Ungheni into SMART sustainable cities, with a focus on the use of SMART technology and innovative solutions for economic infrastructure development and service delivery will require continuous support and high-level expertise into the envisaged area at diverse stages of programme implementation.

As part of its focus on innovation, the focal regions are committed to transforming the municipalities into SMART Cities which can generate safer space with better local services and an environment of innovation that encourages creative solutions, promotes job creation and reduces inequalities.

### III. SCOPE OF WORK

The **overall objective** of the International Consultant assignment (hereinafter Consultant) is to provide hands-on support for the Programme EU4Moldova: focal regions in the implementation of the SMART Component, including the SMART City Concept and two Roadmaps for Ungheni and Cahul Municipalities and offer feedback to the SMART projects related technical documentation.

The Consultant will facilitate the transformation of a Ungheni and Cahul into SMART Cities. The following tasks are envisaged:

**Task 1. Provide high-quality advice, practical approach and implementation process,** based on the:

- **on-going and/or launched SMART development and digital transformation initiatives** under the Programme.
- **Terms of References and Technical Specifications elaboration.**

- **Technical documentation, cost estimates, work schedules revisions and feedback provision.**
- **SMART Cities Framework** structured around **five pillars** - SMART Mobility, SMART Built Environment, SMART Utilities and Public Infrastructures, SMART Public Services, and Programme Activities, conceptions for Cahul and Ungheni as SMART Cities and Regions, Programme phases, SMART additionality, coherence with EU4Moldova objectives, **implementation of SMART Platform enablers and projects** defined as per the SMART City Framework and **recommendations** for the next steps.
- **SMART City and Region Roadmap** developed for Cahul and Ungheni municipalities, **Plan of action, projects implemented and key actions** by timescale (short-, mid- and long-term).
- **best international**, including **regional practices and experience**, that would be easy to adapt to the Cahul and Ungheni regional realities or context.

**Task 2. Offer practical technical support** to the EU4Moldova: Focal regions Programme **on the SMART Component implementation to enable SMART Development, and implementation of the IT infrastructure**, with a focus on the achievement of the following results:

- **Advise and provision of technical support** to the LPAs **to design and build** the necessary **IT infrastructure** to enable the SMART development, digital transformation of the public services and processes, and use of innovative technologies such as social, mobile, analytics and cloud platforms to deliver the more inclusive and efficient public services that citizens demand.
- **IT platform and Service Delivery:** Assistance of Cahul and Ungheni LPAs to design and implement an IT platform - an interconnected system for raw data collection, analysis, processing, planning and service delivery, comprising SMART applications and e-services, ensuring the integration and interoperability of data suppliers and users, as well as the security of the data.
- **Support in the implementation and application of SMART systems** in the **local public services, local government functions** (i.e. urban planning, administrative services, water and sanitation, energy, health, education, etc.) and applications (software apps) to facilitate citizen's involvement.

**Task 3.** The Consultant will ensure the provision of **high-level hands-on advisory services and facilitate knowledge building initiatives and innovation activities**, focusing on the achievement of the following results:

- **Development policies:** Provision of recommendations based on the assessment of the country's development policies in the digital transformation areas based on international current tendencies and practices, including the impact on EU4Moldova: focal regions Programme activities.
- **Capacity building:** Provision of support in activities related to capacity building processes launched under the EU4Moldova and enhancement of LPAs digital skills to ensure sustainability of the Programme intervention after its finalization (drafting capacity building concept, developing training materials, and carrying out training sessions).
- **Innovation activities and implementation of generated solutions:** Contribution to the innovation activities (i.e. conferences, high level events, open data initiatives, hackathons,

as well as open app competitions) to be held under the Programme and support the implementation of generated solutions.

- **Knowledge networks and communities of practice:** Facilitation of the connections with local and international development-related knowledge networks and communities of practice.

The SMART City Concept and Roadmaps considered and were tailored to the needs of citizens, thus adopting a citizen-centric approach, and legal entities to respond to both the current and future needs and realities, properly connecting regions, municipalities, and cities, continually striving to raise the quality of life for Cahul and Ungheni residents and visitors. Therefore, under the current assignment the Consultant will guide stakeholders (the main beneficiaries and contributors) and discuss Roadmaps' implementation options with local government officials and staff.

Based on the on-going or launched SMART development initiatives, the Consultant will provide hands-on guidance in implementation of the:

- **quick wins solutions** and rely on activities designed to cover neighborhood communities or entire region, concrete actions to attract investment, promote job creation and improve infrastructure to enhance the quality of life for citizens and encourage business growth, increased quality, and availability of public services delivery, including public administrative services and communal services.
- **solutions targeted under the key pillars for the Smart City framework** (1) SMART Mobility, (2) SMART Built Environment, (3) SMART Utilities and Public Infrastructures, (4) SMART Public Services, and (5) Programme Activities referring to the integrated urban mobility studies, streetscape redesigns, improving efficiency, service offerings, and manageability of public services, business and start-up incubator facilities, public lighting infrastructure, energy efficiency planning, utilities infrastructure, smart metering, urban/rural projects for public services, urban, inter-urban transportation, events and cultural programmes, etc.

The assignment should have **deep practical approach** and **consider the regional context**.

By focusing on how to build and deliver innovative initiatives with real impact, it is expected to help local governments and other development partners to identify and ideate new ways of solving urban challenges toward the defined time frame, and beyond.

#### **IV. KEY DELIVERABLES, ESTIMATED WORKLOAD AND TENTATIVE TIMETABLE**

The assignment will require the completion of the following key deliverables:

<b>Activities &amp; Key Deliverables</b> <i>(provision of deliverables of required content and quality is the only criteria for consultant's payment)</i>	<b>Estimated work volume</b> <i>(used at the submission stage)</i>	<b>Tentative timeframe</b> <i>(subject to coordination/adjustment with EU4MD project team)</i>
<p><b>1. Support the Programme with the high-quality advice, practical approach and implementation process</b></p> <ul style="list-style-type: none"> <li>✓ Provide support to on-going and/or launched SMART development and digital transformation initiatives:               <ul style="list-style-type: none"> <li>• Draft ToRs and Technical Specifications;</li> <li>• Carry out SMART City Technical documentation, cost estimates, work schedules revisions and on demand feedback provided, including a set of consultation meetings;</li> <li>• Ensure the Implementation of projects based on the defined SMART City Framework and Roadmaps, and recommendations for the next steps considering short-, mid- and long-term activities.</li> </ul> </li> </ul>	41 working days	February 2022 – July 2023
<p><b>Deliverable 1:</b></p> <ul style="list-style-type: none"> <li>• Detailed ToRs and Technical Specifications drafted jointly with EU4Moldova Programme and LPAs and approved by the EU4Moldova Programme and UNDP CO (a total of 10 documents);</li> <li>• Feedback and recommendations to technical documentation, cost estimates, work schedules (at least 10 documentation) provided;</li> <li>• SMART City projects implementation ensured (at least 1 project per each pillar implemented in each region (i.e. 5 projects in total per each region or a total of 10 projects for both focal regions).</li> </ul> <p>Progress reports of conducted activities submitted</p>		
<p><b>2. Technical Support in the implementation of IT infrastructures and platforms, and application of SMART systems</b></p> <ul style="list-style-type: none"> <li>✓ Enable SMART development and implementation of the IT infrastructure:               <ul style="list-style-type: none"> <li>• Design IT infrastructure and IT Platform to ensure the Service Delivery;</li> <li>• Ensure the implementation of SMART systems for local public services (i.e. urban planning, administrative services, water and sanitation, energy, health,</li> </ul> </li> </ul>	32 working days	

<b>Activities &amp; Key Deliverables</b> <i>(provision of deliverables of required content and quality is the only criteria for consultant's payment)</i>	<b>Estimated work volume</b> <i>(used at the submission stage)</i>	<b>Tentative timeframe</b> <i>(subject to coordination/adjustment with EU4MD project team)</i>
education, etc.) and applications (software apps) to facilitate citizen's involvement.		
<b>Deliverable 2:</b> <ul style="list-style-type: none"> <li>• IT infrastructure and IT Platform design and implementation ensured.</li> <li>• SMART systems for local public services and software apps designed and implemented (at least 4 local public services and 2 applications).</li> </ul> Progress reports of conducted activities submitted		
<b>3. High-level hands-on advisory services and facilitation of knowledge building initiatives and innovation activities:</b> <ul style="list-style-type: none"> <li>✓ Draft Capacity building Concept;</li> <li>✓ Develop Training materials to ensure the capacity building processes and enhancement of LPAs digital skills;</li> <li>✓ Carry out Training sessions;</li> <li>✓ Facilitate and/or co-organize jointly with EU4Moldova Programme and LPAs Innovation activities, conferences, high level events, open data initiatives, hackathons, open app competitions ;</li> <li>✓ Facilitate local and international development-related knowledge networks and communities of practice.</li> </ul>	27 working days	
<b>Deliverable 3:</b> <ul style="list-style-type: none"> <li>• Recommendations on the country development policies in the digital areas based on international current tendencies and practices;</li> <li>• Capacity building Concept drafted;</li> <li>• Training materials developed;</li> <li>• Training sessions carried out (1 training per each pillar, up to 5 trainings for each focal region);</li> <li>• Innovation activities facilitate and/or co-organized (at least 4 events or initiatives);</li> <li>• Knowledge networks and communities of practice facilitated (up to 10).</li> </ul> Progress reports of conducted activities submitted		



<b>Activities &amp; Key Deliverables</b> <i>(provision of deliverables of required content and quality is the only criteria for consultant's payment)</i>	<b>Estimated work volume</b> <i>(used at the submission stage)</i>	<b>Tentative timeframe</b> <i>(subject to coordination/adjustment with EU4MD project team)</i>
<b>TOTAL estimated workload</b>	<b>100 working days</b>	

**Note:** The indicated tentative timeframe has been estimated as being sufficient/feasible for the envisaged volume of work to be completed successfully and is proposed as a guideline for the duration of the assignment. The provision of the envisaged deliverables approved by UDNP shall be the only criteria for Consultant's work being completed and eligible for payment/s.

All activities under this assignment shall be performed in a gender-sensitive manner, with respect of blue /green principles and applying human rights-based approach.

**Language of the deliverables:** All deliverables shall be submitted in English language (or Romanian or Russian if the Expert is fluent in one of these languages).

## V. INSTITUTIONAL ARRANGEMENTS

This is a home-based assignment with 3 missions (up to 5 days each) to Moldova (Ungheni and Cahul). Visits to Moldova are to be coordinated prior and approved by the Programme Manager. The International Consultant will be provided with a workspace in Programme's office. In-country transportation, logistics and interpretation (if needed) will be provided by the Programme and, therefore, shall not be included in the consolidated financial offer. The International Consultant has to cover on its own the airfare and accommodation during assignments in Moldova and, thus, shall be included in the consolidated financial offer.

In general, UNDP should not accept travel costs exceeding those of an economy class ticket. Should the Consultant wish to travel on a higher class he/she should do so using their own resources. In the case of unforeseeable travel, payment of travel costs including tickets, lodging and terminal expenses should be agreed upon, between the respective business unit and Individual Consultant, prior to travel and will be reimbursed.

Individual contractor who is over 65 years of age will be required, prior to contract signature, to undergo full medical examination and obtain medical clearance from an UN-approved doctor or his/her own preferred physician. The medical examination shall be issued and submitted to UNDP Moldova upon request.

The Consultant will work under direct supervision of Project Officer for SMART Development and Digital Transformation and in close cooperation with Project Manager/Local Development of the EU4Moldova: Focal Regions Programme.

It is expected that the Consultant begins the assignment in February 2022 and completes it in July 2023.

The Consultant is expected to undertake three in-country missions (up to 15 working days in total):

<b>Missions*</b>	<b>Tentative number of days in Moldova</b>
1 <sup>st</sup> mission (beginning of the assignment, 2022)	Up to 5 working days
2 <sup>nd</sup> mission (mid-term of the assignment, 2022)	Up to 5 working days
3 <sup>rd</sup> mission (closure of the assignment, 2023)	Up to 5 working days

*\*Note: the exact timeframe of missions to Moldova will be coordinated prior.*

Documents for review and evaluation will be provided by the Programme in electronic format. All the above-listed deliverables shall be endorsed by the Programme Manager within 14 calendar days from their submission.

## **VI. PAYMENT FOR PROVIDED SERVICES**

The payment for services will be made in tranches upon submission of deliverables stated in point IV above and certification by the Programme Manager that the services were satisfactorily performed.

## **VII. PERFORMANCE EVALUATION**

Consultant's performance will be measured against such criteria as: timeliness, responsibility, initiative, communication, accuracy, and quality of the products delivered.

## **VIII. REQUIREMENTS FOR EXPERIENCE AND QUALIFICATION**

The following qualification criteria shall be applied for the selection of the Consultant:

### Academic Qualifications:

- Master's Degree (or equivalent) in Architecture, Urban/city planning, Economics, Business Administration, Public Administration, IT/Computer Science, e-Governance, sustainable development or other relevant fields.

### Working experience:

- At least 10 years of professional experience in the field of urban and sustainable development, public administration and local development;
- At least 5 years of international experience in the field of development and implementation of SMART City technologies or projects, use of innovation or e-governance transformation in service delivery;
- Recent experience (in the past 2 years) in the elaboration and implementation of at least two urban design projects, urban development plans or strategic plans of the city centers in a participatory manner;
- Experience in the SMART City conceptualization and execution of at least two economic development projects in the field of SMART City;

- Experience in development of at least two action plans, roadmaps or/and strategies for SMART Cities with multidisciplinary groups;
- Recent experience (in the past 2 years) in managing at least one project related to public services improvements, including initiatives designed and implemented at the local public authorities' level (i.e. SMART Public Transportation, Waste Management, Citizen Engagement Initiatives etc.);
- Experience in the European/East-European countries in the area of assignment will be a strong advantage;
- Experience of work with international organizations/projects, including UN and/or European ones will be an advantage;
- Knowledge of the development context of Moldova will be an asset.

#### Competencies:

- Experience and management skills in drafting concepts, action plans, roadmaps, strategies, studies, reports, needs assessment, development plans with strong result-based language in the priority spheres of the assignment;
- Knowledge of and ability to transfer international expertise in the priority spheres of the assignment;
- Knowledge and skills of MS Office, including Word, Excel, PowerPoint;
- Excellent language proficiency in both written and oral English. Knowledge of Romanian or Russian language will be an asset.

#### Personal Qualities and other requirements:

- Demonstrated capacity of team-orientation work, excellent planning and organizational skills;
- Good interpersonal skills, solid judgment/decision making, initiative and creativity;
- Ability to analyze, plan, communicate effectively organize and meet expected results;
- Ability to achieve results and deadlines in a timely manner, maintaining a high standard throughout;
- Demonstrated cultural sensitiveness and sound judgment;
- Proven commitment to the core values of the United Nations, in particular, respecting differences of culture, gender, religion, ethnicity, nationality, language, age, HIV status, disability, and sexual orientation, or other status.

The United Nations Development Programme in Moldova is committed to workforce diversity. Women and men, persons with different types of disabilities, LGBT, Roma and other ethnic, linguistic or religious minorities, persons living with HIV, as well as refugees and other non-citizens legally entitled to work in the Republic of Moldova, are particularly encouraged to apply.