



TERMS OF REFERENCE

Job title:	International Expert to develop the Technical Specifications for Land Parcel Identification System (LPIS) for the Moldova Paying Agency (AIPA)
Duty Station:	Republic of Moldova, Chisinau
Contract type:	Individual Contract
Assignment type:	International Consultancy
Contract duration:	May-September 2026
Expected workload:	45 working days
Indicative starting date:	May 2026

1. BACKGROUND

The project Promoting agricultural development and quality employment for the most vulnerable (EMAG) is financed by the European Union and implemented by UNDP to support Moldova's transition from crisis response toward long-term resilience, inclusive growth, and EU-aligned reforms. Building on EU-Moldova priorities in employment, labour market modernization, and agricultural governance, the project promotes an integrated approach that links employment services, social protection, and agricultural support through digitally enabled service delivery. Agriculture remains a central sector of the Moldovan economy, employing over one-fifth of the workforce and contributing around 12% of GDP. Including food processing, the agri-food sector accounts for 16% of GDP and 45% of total exports.

Digital modernization of public services in both employment and agriculture is progressing but remains uneven. Key institutions continue to operate with fragmented data systems, weak interoperability, and limited analytical capacity. These gaps hinder policy implementation, reduce the effectiveness of subsidies and services, and limit the state's ability to engage the most vulnerable rural populations.

In this context, the project seeks to contribute to labour market inclusion and agricultural modernization through digitally enabled service delivery. UNDP's engagement is focused on integrated and inclusive approaches – linking social protection, employment, and agricultural services through modern digital infrastructure and case management. Building on past experience in digital governance and service modernization, the initiative is well positioned to deliver scalable results that can be institutionalized and sustained beyond the project's duration. It will contribute to Moldova's broader objectives of fostering decent work, rural development, and sustainable EU-aligned transformation.

The project aims to strengthen Moldova's institutional and digital governance systems in order to expand access to employment and modernize agricultural service delivery for vulnerable rural populations. Its focus is on enabling hard-to-employ individuals and farmers to benefit from more efficient, inclusive, and transparent public services.

In agriculture, the project will help farmers across the country, including smallholders and underrepresented groups, access modernized services that are transparent, equitable, and aligned with Moldova's reform agenda and EU commitments. The initiative contributes to the operationalization of the digital National Farmers Registry (dNFR) and the Land Parcel Identification System (LPIS), both of which are prerequisites for Moldova's compliance with the EU Common Agricultural Policy (CAP) requirements under Chapter 11. The project also aims to strengthen transparency and accountability in agricultural governance through the introduction of conditionality and compliance mechanisms.

Institutional support will be provided to the Ministry of Agriculture and Food Industry (MAFI) and the Agency for Intervention and Payments in Agriculture (AIPA) to reinforce their capacity to manage digital tools, improve administrative frameworks, and ensure transparent subsidy management. These reforms will be complemented by inclusive outreach measures to ensure equitable access to digital agricultural services for smallholders, women, and rural youth, fostering resilience and participation across rural communities.

National digital transformation framework

At the global level, UNDP's long-term vision is to create a world in which digital technology is an empowering force for people and the planet. Digital technology is recognized as a fundamental force for change in this century,¹

reshaping economies, governments, and civil society, and influencing almost every aspect of development. The profound consequences and exponential pace of digital transformation demand both localized action and global leadership to reimagine development in a digital age.

In a rapidly evolving digital landscape, amplified by the challenges and opportunities presented by the COVID-19 pandemic, the urgency for digital transformation has been brought to the forefront. UNDP’s Digital Strategy 2022-2025 prioritizes harnessing the potential of digital technology to accelerate progress toward the Sustainable Development Goals (SDGs).

Recognizing this imperative, the Government of the Republic of Moldova, with UNDP’s support, has embarked on an ambitious journey to harness the opportunities of the fourth industrial revolution. This initiative aims to transform public institutions and society through a holistic and inclusive approach, ensuring that the benefits of digitalization are widespread and sustainable.

As a cornerstone of this effort, the Moldovan Government adopted the Digital Transformation Strategy for 2023-2030 (DTS), a forward-looking initiative developed with significant contributions from UNDP Moldova. The strategy underscores Moldova’s commitment to digital innovation and a “whole-of-society” approach, ensuring inclusivity and sustainability in digital transformation. The DTS is aligned with global best practices and supports a range of objectives, including:

- expediting digital transformation across all sectors;
- integrating digital tools in public administration and the private sector;
- simplifying interactions between citizens and the state;
- addressing the digital divide and ensuring inclusive access to digital benefits;
- advancing the achievement of the Sustainable Development Goals (SDGs).

Agricultural governance

Moldova’s National Action Plan for EU Accession for 2024-2027 includes over 1,300 actions aimed at legislative and structural reforms necessary for EU integration. The Plan incorporates recommendations from the European Commission’s November 2023 report, focusing on enhancing the legislative framework and implementing concrete measures to align with EU standards.









The provisions of Chapter 11 on Agriculture and all Common Agricultural Policy requirements, which must be fully met to conclude the negotiation process, underscore the necessity for the digitalization of the agricultural sector, provision of accurate agricultural data, and the presence of functional agricultural information registries and systems, including the establishment of an Integrated Administration and Control System¹.

INTEGRATED ADMINISTRATION AND CONTROL SYSTEM (IACS)

IACS
INTEGRATED
ADMINISTRATION AND
CONTROL SYSTEM

- **Manages, monitors and serves for EU countries to control all the area and animal-based common agricultural policy (CAP) interventions** (such as direct payments interventions and area and animal-based rural development interventions).
- **Ensures that comprehensive and comparable data is available throughout the EU.**

IACS is the main component and pre-requisite for Moldova’s accession to EU.

System of the identification of beneficiaries (DNFR)	Identification system for agricultural Parcels (LPIS)	System for the identification and registration of Animals (RSA)	Geo-spatial application system (GSA)	Area monitoring system (AMS)	Control and penalty System	System for the identification and registration of payment entitlements	Other registers (where applicable)
							

¹ European Parliament / 2021 / Regulation (EU) 2021/2116 of the European Parliament and of the Council on the financing, management and monitoring of the common agricultural policy: eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02021R2116-20220826&qid=1713653701114

The IACS represents a complex administrative apparatus essential for transparently administering and managing agricultural interventions. It operates using electronic means to gather alphanumeric and geospatial data, ensuring data interoperability. The digitalization of the agricultural sector, the development of digital tools, and the implementation of electronic governmental systems will significantly support the harmonization of the national agricultural sector with EU standards and accelerate negotiation activities.

The IACS must be operated by an accredited Paying Agency, which requires compliance with accreditation criteria regarding the internal control environment and certification of information systems. Therefore, digital transformation interventions are crucial for the Republic of Moldova to achieve compliance with EU Common Agricultural Policy standards and open further fundraising opportunities.

This necessitates strengthening the digitization of agricultural registries and systems for administering and managing agricultural subsidies, particularly those operated by the Ministry of Agriculture and Food Industry and the Agency for Intervention and Payments in Agriculture. Consequently, MAFI and AIPA have embarked on a comprehensive journey to harness the potential of digitalization through the initial steps of implementing the Integrated Administration and Control System. The first priorities are establishing the digital National Farmer Registry, followed by the Land Parcel Identification System. Setting up these comprehensive IACS elements involves complex actions and requires technical and expert support from external counterparts, including UNDP assistance.

To comply with EU Joint Research Centre LPIS standards, Moldova must upgrade its LPIS application, data model, and spatial processes. The development of a modern LPIS requires comprehensive and technically robust specifications.

2. OBJECTIVE AND EXPECTED OUTPUTS

UNDP Moldova seeks an international consultant to draft the Technical Specifications for the development of the LPIS system by a third party. The consultants' objective is to prepare a full, detailed, procurement ready Technical Specifications for a modern LPIS application aligned with EU CAP, INSPIRE, and JRC LPIS guidelines.

3. KEY ACTIVITIES, DELIVERABLES AND TENTATIVE TIMETABLE

Key activities and deliverables	Tentative timetable
<p>Task 1 - Inception Phase. The consultant will assess Moldova's agricultural support legislation, payment agency operations, and existing geospatial infrastructure against EU IACS requirements, and develop a Technical Concept defining the LPIS implementation (reference parcel model, orthoimage strategy, institutional maintenance arrangements, cross-check methodology, system requirements, and interoperability framework). In addition will review the current IT infrastructure of the paying agency and identify requirements for transitioning to an EU-compliant LPIS.</p> <p>Task 2 – Define Functional Requirements for a unified spatial database (e.g., based on Oracle RDBMS or PostgreSQL/PostGIS) where graphical and attribute data are stored together to ensure data integrity. Those may include, but not be limited to:</p> <ul style="list-style-type: none"> • Parcel reference system logic • LPIS editing, validation, topology rules • Geographic Information System functions, layers, and user workflows • Data quality management • Integration with IACS components <p>Task 3 – Define Non-Functional Requirements. The consultant will define the LPIS non-functional requirements covering system security, performance, and scalability, as well as disaster recovery, logging, and authentication mechanisms. This task also includes ensuring</p>	<p style="text-align: center;">Deliverable 1 by 30 June 2026 18 WDs</p>

<p>compliance with relevant INSPIRE, ISO, and OGC geospatial standards to guarantee interoperability and long-term sustainability.</p> <p>Deliverable 1: Technical Concept Document of LPIS, containing the results of the assessment performed and the proposed structure and features of the LPIS system to be developed. The document shall include at minimum the following technical requirements:</p> <ul style="list-style-type: none"> • Proposed LPIS concept: scope, parcel reference model, and primary functionalities. • Functional requirements: spatial database design rationale, editing and validation rules, GIS workflows, data quality framework, and IACS integration logic. • Non-functional requirements: security, performance, scalability, availability, disaster recovery, and standards compliance specifications. • Compliance mapping with explicit reference to EU Directive requirements of IACS and LPIS functionalities. • Estimated costs for the development. • Identified risks and recommended mitigations for the development phase. 	
<p>Task 4 – System Architecture & Interoperability. The consultant will define the high-level system architecture for the LPIS, including the selection and configuration of the GIS engine and spatial database. The task also requires specifying interoperability mechanisms with key external systems, including the farmer application system, on-the-spot checks, cadastre, and the National Spatial Data Infrastructure/geoportal.</p> <p>Task 5 – Draft Technical Specifications. The consultant will prepare fully structured technical specifications for the LPIS, detailing system modules, functionalities, the data model, metadata standards, and the required system environment and hardware. The specifications must also define APIs, interfaces, and integration standards, and conclude with a clear implementation roadmap.</p> <p>Task 6 – Finalization. The consultant will present the draft technical specifications to AIPA and UNDP and facilitate a workshop to collect feedback, clarify assumptions, and validate the proposed approach. Based on the inputs received, the consultant will finalize and submit the complete set of Technical Specifications.</p> <p>Deliverable 2: Final Technical Specifications. A complete, procurement-ready technical specifications document that shall comply with the public procurement requirements of the Republic of Moldova and serve as the primary technical input to the LPIS development tender.</p>	<p>Deliverable 2 by 15 August 2026 27 WDs</p>

Note: Deliverables and the final timeline can be amended or specified for the purpose of the assignment.

All deliverables should be agreed with UNDP Country Office and be provided in electronic copy.

Installation payments will be made upon the successful completion of the tasks assigned.

4. INSTITUTIONAL ARRANGEMENTS

The timeframe for the work of the consultant is planned for the period May - September 2026. During this time, the consultant is expected to work a total of 45 working days.

The assignment shall be performed under the direct supervision of the UNDP Project Manager and Project Analyst, under coordination with the UNDP Digital Development Specialist and Project team, and in close collaboration with AIPA and MAFI.

For the duration of the contract, UNDP will provide the consultant with the necessary information and materials for the fulfilment of the assignment. All communications and documentation related to the assignment will be in English.

5. FINANCIAL ARRANGEMENTS

Payments will be disbursed upon submission and validation of deliverables with beneficiaries (certifying that the services have been satisfactorily performed) and their subsequent approval by the UNDP Project Manager, and Digital Development Specialist and clearance by the Inclusive Growth Programme Specialist / Cluster Lead.

The proposals shall include a breakdown of lump sum amount (including the daily fee, taxes, and number of anticipated working days).

6. INTERNATIONAL TRAVEL

No international travel is envisaged as part of this assignment. Should travel to Moldova be required during implementation, this will be agreed in advance between the consultant and UNDP. Travel expenses shall not be included in the financial offer.

7. QUALIFICATIONS AND SKILLS REQUIRED

Academic Qualifications:

- Bachelor's degree (or higher) in GIS, Computer science, IT systems, Geospatial sciences, Agriculture, Economics or related fields.

Experience and knowledge:

- At least 7 years of experience in areas of agriculture, agriculture related registries, governance, Geographical Information Systems, Information Systems, or related fields;
- Demonstrated experience (minimum 1 record) in drafting technical specifications or functional designs for agriculture related informational systems within the framework of the EU Common Agricultural Policy (CAP);
- Previous experience in providing technical assistance to Paying Agencies in EU candidate countries or recent Member States to achieve system accreditation;
- In-depth understanding and practical experience with digital transformation processes, space technologies, and innovative data applications in agriculture (such as Copernicus, Galileo, and related monitoring technologies);
- Proven capacities of team-oriented work, abilities of planning and organization;
- Ability to analyse, plan, effectively communicate, organise and fulfil the planned results;
- Ability to attain results and meet deadlines, maintaining high quality standards;
- Demonstrated interpersonal and diplomatic skills, as well as the ability to communicate effectively with stakeholders at all levels and to present ideas clearly and effectively;

Competencies:

- Ability to perform and deliver expected results in a fast-paced working environment.
- Strong sense of initiative and ability to work independently.
- Strong written and communication skills, with analytic capacity and ability to identify relevant findings and prepare analytical documents in a clear and concise manner.
- Demonstrated interpersonal skills, as well as the ability to communicate effectively and build meaningful partnerships with all stakeholders.
- Fluency in English (verbal and written) is required.

Personal qualities:

- Responsibility, flexibility and punctuality, ability to meet deadlines and prioritize multiple tasks.
- Proven commitment to the core values of the UN, in particular respecting differences of culture, gender, religion, ethnicity, nationality, language, age, HIV status, disability, sexual orientation, or other status.

8. DOCUMENTS TO BE INCLUDED WHEN SUBMITTING THE PROPOSALS

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

- Signed and filled-in Offeror’s letter to UNDP confirming interest and availability for the individual contractor (IC) assignment, incorporating Financial proposal in Annex 2 (in USD, specifying a total requested amount per working day, including all related costs, e.g. fees, phone calls etc.). Annex 2 to the Offeror’s letter, incorporating the Financial Proposal, shall be filled in mandatorily and includes the detailed breakdown of costs supporting the all-inclusive financial proposal;
- Duly updated CV with at least 3 references.
- Statement of Health for Individual Contractors

Important notice: applicants who have the statute of Government official / public servant will be asked to submit the following documentation:

- a no-objection letter in respect of the applicant received from the Government, and;
- certification in writing by the employer to be on official leave without pay for the entire duration of the individual contract.

9. EVALUATION

Initially, individual consultants will be short-listed based on the following minimum qualification criteria:

- Bachelor’s degree (or higher) in GIS, Computer science, IT systems, Geospatial sciences, Agriculture, Economics or related fields.
- At least 7 years of experience in areas of Agriculture, agriculture related registries, governance, Geographical Information Systems, Information Systems, or related fields.
- Demonstrated experience (minimum 1 record) in drafting technical specifications or functional designs for agriculture related informational systems within the framework of the EU Common Agricultural Policy (CAP).
- Fluency in English.

The short-listed individual consultants will be further evaluated based on the following methodology:

Cumulative analysis

The award of the contract shall be made to the individual consultant whose offer has been evaluated and determined as:

- a) responsive/ compliant/ acceptable, and
- b) having received the highest score out of a pre-determined set of weighted technical and financial criteria specific to the solicitation.

* Technical Criteria weight – 60% (300 pts);

* Financial Criteria weight – 40% (200 pts).

Only candidates obtaining a minimum of 210 points would be considered for the Financial Evaluation.

Criteria	Scoring	Maximum achievable points
Technical		
Bachelor’s degree (or higher) in GIS, Computer science, IT systems, Geospatial sciences, Agriculture, Economics or related fields.	Bachelor’s degree – 5 pts Master’s degree – 10 pts PhD degree – 15 pts	15
At least 7 years of experience in areas of agriculture, agriculture related registries, governance, Geographical Information Systems, Information Systems, or related	7 years – 35 pts, each additional year of experience – 5 pts, up to 45 pts	45

fields.		
Demonstrated experience (minimum 1 record) in drafting technical specifications or functional designs for agriculture related informational systems within the framework of the EU Common Agricultural Policy (CAP).	One record – 20 pts, each additional record - 20 points, up to a maximum of 40 pts.	40
Previous experience providing technical assistance to Paying Agencies in EU candidate countries or recent Member States to achieve system accreditation.	Each assignment - 5 pts, up to max 25 pts;	25
Interview (demonstrated technical knowledge and experience; communication/ interpersonal skills; initiative; creativity/ resourcefulness). Only the first 3 applicants that have accumulated the highest technical score shall be invited to the interview.		
In-depth understanding and practical experience with digital transformation processes, space technologies, and innovative data applications in agriculture (such as Copernicus, Galileo, and related monitoring technologies).	None – 0 pts, one record – 20 pts, each additional record - 20 points, up to a maximum of 60 pts	175
Proven capacities of team-oriented work, abilities of planning and organization.	None – 0 pts, limited – 10 pts, good –25 pts, strong – 30 pts	
Ability to analyse, plan, effectively communicate, organise and fulfil the planned results.	None – 0 pts, limited –10 pts, good –25 pts, strong – 30 pts	
Ability to attain results and meet deadlines, maintaining high quality standards.	None – 0 pts, limited –10 pts, good –25 pts, strong – 35 pts	
Demonstrated interpersonal and diplomatic skills, as well as the ability to communicate effectively with stakeholders at all levels and to present ideas clearly and effectively.	None – 0 pts, limited –5 pts, good – 10 pts, strong –15 pts	
Fluency in English.	5 pts	
Maximum Total Technical Scoring		300