

# Terms of Reference

## **Developing NSDI Strategy in the Republic of Kosovo** (Contract Ref. number XK-KCA-102906-CS-INDV)

### **I. Background information**

The Government of Kosovo (GoK) has received a Credit from the World Bank Group's International Development Association (IDA) in the amount of EUR 14.60 million to finance the Real Estate Cadaster & Geospatial Infrastructure Project (REGIP), which is expected to be implemented within a five-year period. REGIP aims to assist the GoK to increase the transparency and quality of land administration and geospatial data and services. The Kosovo Cadastral Agency (KCA) is the implementing agency for REGIP, under which a Project Implementation Units (PIU) has been established. The PIU will be responsible for day-to-day project implementation and for providing specific technical oversight to project activities. The PIU is responsible for all fiduciary aspects, such as procurement, financial management, monitoring and evaluation, and safeguards under REGIP.

The Components of the project are Component A - Policy, Legal and Institutional Support; Component B - Cadastre Modernization; Component C - ICT and Geospatial Infrastructure and Component D - Project Management, Capacity Building, Public Outreach, and Monitoring & Evaluation.

Component C (ICT and Geospatial Infrastructure) has the objective of supporting the implementation of the Information Technology Strategy of the KCA and the strategy of the National Spatial Data Infrastructure (NSDI) in the Republic of Kosovo. These strategies were drafted within the earlier Real Estate Cadastre and Registration Project (RECAP). Both strategy papers show the vision for: (a) further simplification of business processes, (b) increased data standardization and access to data that would improve the efficiency of staff and offices, (c) increased transparency and accountability; (d) equal access to information; (e) increase the use of geospatial data and services for the development of new products and services; and (f) minimize opportunities for corrupt practices.

Both strategies will also provide gender statistics and disaggregated data for evidence-based decision-making and support the resource governance monitoring process towards achieving the 2030 agenda. This will provide new opportunities for the Government, Municipalities, Non-Governmental Organizations, the Academia and the Private Sector to develop innovative new services and products.

For the KCA IT strategy, Component C will invest in the further development of the Kosovo Cadastral Land Information System with a Service Oriented Architecture (KCLIS-SOA) to support the simplification of business processes, implementation of legal changes and institutional reform

during the project period, development of electronic services, greater interoperability with other government systems and registers through *e-Gateway*, technical assistance for quality assurance, quality control and cyber security improvement, hardware supply and technical training. The component will also support the updating of the Information Technology Strategy to cover the next five (5) years and the development and implementation of an archive and document management strategy and an action plan. The component will develop a standard for digital archiving, data digitization as well as the development of e-services from the central digital archive.

The NSDI strategy prepared under RECAP was completed in 2015 but not implemented at that time. Under Component C, investments will be made in technical assistance to update and then support the implementation of the National Spatial Data Infrastructure Strategy, which will improve the availability and quality of services in the country and ensure that agencies and the private sector have a way to share information, work together and build new products and services. The component aims to increase the capacity of KCA to manage IT systems and further implementation of NSDI over next five (5) years and create a new sustainable business model for further development and maintenance of IT systems.

## **II. Objectives and main research questions**

The purpose of this assignment is to develop the NSDI strategy, for the period 2023-2028 and also train KCA staff members to become specialists of SDI. An individual consultant will be appointed to carry out this task.

The consultant and the (to be trained) KCA staff member(s) will work closely with the key stakeholders within the NSDI community to define the strategic direction, rationale, governance structure, outreach, capacity building, and implementation roadmap for the Kosovo NSDI. In addition, the consultant will work with KCA management staff, international and local advisors to meet the set objectives. The NSDI strategy drafted for the period 2015-2020 could not be implemented because the law on NSDI was not approved by the Assembly of the Republic of Kosovo, which is already entered into force. For the most effective implementation of this law it is necessary to develop the new Strategy for NSDI for the next 5 years 2023-2028.

The objectives of the NSDI Strategy are to transform the way spatial data is shared within Kosovo so it may underpin national social and economic development to the benefit of all. An incremental and sustainable implementation path is needed so stakeholders move from the current state of disparate GIS systems to an integrated and harmonized infrastructure for sharing spatial data.

## **III. Scope of the work**

The consultant will review the existing strategy, and then with consultation and discussion, will develop the NSDI Strategy to enable the successful development of NSDI in the Republic of Kosovo and to train in particular KCA staff member(s) to become SDI-specialist(s) as the current expertise in this domain is very limited in the country. The new Strategy focuses on the NSDI development until 2028.

Currently there are some NSDI activities under way or planned. The Legal Framework (e.g. Administrative Instructions for implementation of Law of NSDI). The development of the Interoperability Infrastructure (e.g. Establishment of the NSDI Geoportal) is in the planning stage and this will be implemented based on the new NSDI strategy. The strategy strongly focuses on the definitions of the Strategic Vision/Mission, Governance Structure, the Finance-related Issues, and NSDI Implementation Roadmap, and the building of capacity through stakeholder engagement and KCA staff-training.

The activities related to the development of the Legal NSDI-Framework and Interoperability Infrastructure form the foundation for the NSDI-Strategy. However, the emphasis of the NSDI-strategy is mainly on the non-technological issues such as the rationale, Finance, Governance Structure, Outreach, Capacity building, and NSDI-Roadmap implementation.

There are six deliverables for this contract as below.:

- **Stream 1 Definition of Strategic Mission/Vision (Deliverable 1):** To create clarity of purpose and a unified vision, objectives, and to list the key stakeholders.
- **Stream 2 Presentation of Finance-related Issues (Deliverable 2):** To create a clearly articulated funding model to enable effective partnering and collaboration, and to estimate the costs and benefits of the NSDI-implementation.
- **Stream 3 Definition of Governance Structures (Deliverable 3):** To specify a governance structure which enables effective collaboration and political engagement to foster a transparent and open environment with defined roles and responsibilities.
- **Stream 4 Outreach and Capacity Building (Deliverable 4):** To outreach the NSDI-concept in Kosovo, and build capacity through stakeholder engagement and KCA staff-training
- **Stream 5 Delivery of NSDI Implementation Roadmap (Deliverable 5):** A defined programme plan with a clear time schedule of actions and effective mechanisms for performance monitoring/reporting and risk management.
- **Final NSDI strategy and Final Report (Deliverable 6).**

It is envisaged that regular visits to KCA will be required for the duration of the project. The purpose of these visits will be to present the results of previous activities and to collect information for the following activities. The consultant should plan for minimum 5 visits and specify if any additional visits will be required.

#### **IV. Work Products/Deliverables**

The primary purpose of the NSDI Strategy is to provide a framework for collaboration among the NSDI stakeholders. It should enable and engage the community and support them through a potentially challenging transformation programme. A secondary purpose of the strategy is to train staff member(s) of KCA to become specialist(s) in the domain of SDI, in this way the relevant knowledge remains in the country.

Each of the products specified below in the “detailed description of work” will contribute to the complete NSDI Strategy having the existing NSDI Legal Framework and the Interoperability Infrastructure as a starting point.

Deliverables will be reviewed and assessed by KCA and key stakeholders within the NSDI community. The assessment of each deliverable will be based on the overall objectives of the NSDI Strategy, to ensure that it contributes to those objectives.

### Detailed Description of Work

This section provides a detailed description of the work to be completed broken down into the following work streams.

#### 1. Define Strategic Mission and Vision

##### **Objective**

To ensure that the NSDI Strategy aligns to European and Kosovo national policy, and that there is a clearly defined mission, vision, and objectives with which will stimulate and engage the key stakeholders within the Kosovo NSDI community.

##### **Scope of work**

The consultant and the KCA staff member(s) to be trained will need to build on the existing work that has been done to establish the Kosovo NSDI:

- Define the strategic mission, vision and objectives in collaboration with the NSDI stakeholders
- Collaborate with key stakeholders within the NSDI community to ensure the mission, vision and objectives aligns with Government of Kosovo national policy
- Assess the implication of European policy. This shall include EU Directives and Regulations relating to: developing the European “Information Society” such as the Public Sector Information (PSI) Policy (Directive 2003/98/EC); and European Spatial Information Policy such as the INSPIRE Directive (2007/2/EC).

The strategic mission, vision, and objectives need to take into account the Kosovar culture and traditions while remaining achievable given the available resources and constraints.

##### **Stakeholders**

A preliminary list of stakeholders has already been collected. The consultant and KCA staff member(s) engage with key stakeholders from the list to ensure that the NSDI strategic mission, vision and objectives are representative of their current and future needs. The consultant and KCA staff member(s) shall update the preliminary list of stakeholders with any additional organizations consulted during the definition of the NSDI Strategy. This will be achieved in the D4.2 NSDI-Stakeholder group meetings.

##### **Outcome: Deliverable 1: Definition of Strategic Mission/Vision**

- Analysis of European and National Policy and the impact and implications for the NSDI
- Definition of Strategic Mission and Vision
- Defined Objectives of the NSDI
- List of key stakeholders

## 2. Present Finance-related issues

### **Objective**

To model the best way to fund the implementation of the NSDI, partnering, and articulating the mutual and individual costs and benefits to stakeholders. It will define the funding and partnering model with estimates of costs and benefits.

### **Scope of work**

The consultant and KCA staff member(s) define the appropriate funding model and partnering model with a clear cost benefit analysis:

- **Funding Model:** The consultant and KCA staff member(s) explore additional sources of public, private and external funding which could support the development and operation of the NSDI.
- **Partnering Model:** A successful NSDI will depend on the effective partnering between the public (including state institutions) and/or private sectors. The consultant and KCA staff member(s) will propose possible partnering models with supporting good practice guidance on how to encourage partnering.
- **Cost Benefit Analysis:** The consultant and KCA staff member(s) will quantify costs and benefits of implementing the NSDI. This should include an estimate of the costs for establishing the NSDI, together with the policy and model for pricing information and a model for revenue and expenditure.

### **Stakeholders**

The consultant and KCA staff member(s) engage with the key stakeholders to ensure an appropriate funding model and partnering model with responsibilities and opportunities for all involved. In addition, together with the key stakeholders the consultant and KCA staff member(s) estimate the associated NSDI-implementation costs and benefits.

### **Outcome**

#### **Deliverable 2: Presentation of Finance-related Issues.**

- Funding Model - identifying additional sources of funding
- Partnering Model - to enable effective public/private partnerships
- Cost Benefit Analysis - of implementing the NSDI, including
  - Estimates of the costs and benefits for implementing the NSDI
  - A policy and model for pricing information
  - A model of revenue and expenditure

## 3. Define Governance Structures (Institutional Framework)

### **Objective**

To recommend a governance framework for the implementation and maintenance of the NSDI Strategy, and implementation and maintenance of the key components of the NSDI itself, with defined policies and proposed method of implementation.

### **Scope of work**

The challenge is to create a governance structure that satisfies the needs of the public sector, while encouraging the widest range of participation from the stakeholders including the private and academic sectors. The consultant and KCA staff member(s) propose a governance structure that takes into consideration the following aspects:

- **Political will and engagement:** It should engage at the highest political level within Kosovo to ensure the necessary political support and sponsorship. It should fit with the existing political structures and be commensurate with government policy and strategy.
- **NSDI Coordination Body:** It should include a coordination body for the implementation and operation of the NSDI. This should include a definition a draft charter with clearly roles and responsibilities for the participants. It should clarify the relationship and responsibility for the implementation of INSPIRE and the establishment/implementation of the NSDI.
- **Inter-Ministerial Working Groups:** It should define which groups are necessary for the definition and implementation of critical aspects of the NSDI
- **Private sector engagement:** It should define how the private, academic and voluntary sectors engage with the NSDI and support transparency and visibility.
- **Communication Plan:** Definition of the model of communication among the NSDI stakeholders.

### Stakeholders

The consultant and KCA staff member(s) engage with the broadest community of stakeholders to define an effective and transparent governance structure. Experience should be drawn from similar NSDIs within the region on effective best practice for the governance structures of SDIs.

### Outcome

#### Deliverable 3: Definition of Governance Structures

- Recommended Governance and Institutional Framework - for the NSDI Strategy and implementation and maintenance of key components of the NSDI itself.
- Draft Charter and Membership of NSDI Coordination Body
- Draft Charter for Inter-Ministerial Working Groups
- Model for Private/Public Sector Engagement
- Communications Plan

## 4. Outreach and Capacity Building

### Objective

To actively engage a wide community of stakeholders in the NSDI process and build capacity for its implementation and continued operation. In particular, to train KCA staff member(s) to become specialist(s) in the domain of SDI.

### Scope of work

The consultant and KCA staff member(s) shall work with key stakeholders to ensure that they are engaged in the implementation and use of the NSDI as well as work together so that the KCA staff member(s) become specialist(s) in the domain of SDI:

- **KCA staff member(s) training.** Work continuously with KCA-staff member(s) to become SDI-specialist(s) including intensive training.
- **NSDI-Stakeholder group meetings.** Organizing meetings once per two months (at each mission) with key NSDI-stakeholders to raise awareness, to get full commitment of the key players, and to get feedback on the (inter)mediate results
- **Stakeholder Engagement:** A series of two (2) workshops – on key aspects of the NSDI strategy to raise awareness and engage stakeholders in the NSDI.

- **Use case development:** The consultant and KCA staff member(s) shall work with the key stakeholders and create one (1) example use case of how the SDI will be used.
- **Pilot Applications:** The consultant should facilitate the definition of one (1) pilot application which may be built to demonstrate the use of the SDI.

### **Stakeholders**

The consultant and KCA staff member(s) engage widely with all stakeholders within the NSDI community.

### **Outcome**

#### **Deliverable 4: Outreach and Capacity Building**

- Training KCA staff member(s) to become a SDI-specialist(s)
- NSDI-Stakeholder group meetings - A series of stakeholder group meetings
- Stakeholder Engagement Workshops - A series of stakeholder engagement workshops on the NSDI Strategy
- Definition of Example Use Cases - One (1) example use case showing how the NSDI will be used
- Definition of Pilot Applications - Definition of one (1) pilot application to demonstrate the use of the NSDI

## 5. Deliver NSDI Implementation Roadmap (Implementation Plan)

### **Objective**

To define the NSDI Implementation Roadmap and Implementation Plan

### **Scope of work**

The consultant and KCA staff member(s) will define a roadmap showing when and how the NSDI strategy will be implemented. It will include the following:

- An implementation plan with key activities, dependencies, and milestones
- The roles and responsibilities for the implementation of the NSDI
- The key performance monitors and indicators for its implementation
- Risk evaluation and mitigation strategy

### **Stakeholders**

The consultant and KCA staff member(s) engage with the key stakeholders to clarify the implementation roadmap and ensure that it satisfies the overall objectives of the strategy and fits the individual needs of the stakeholders.

### **Outcome**

#### **Deliverable 5: NSDI Implementation Roadmap**

- Implementation Roadmap
- Definition of Roles and Responsibilities
- Definition of key performance monitors and indicators
- Risk evaluation and mitigation strategy

## 6. NSDI Strategy and Final Report

### Objective

To define the NSDI strategy and Final Report

### Scope of work

The consultant will define the NSDI and Final Report. It will include the following:

- Completed NSDI Strategy with key materials extracted from the previous deliverables and included as annexes to the main document
- Summarizing the work done for the duration of the project with key recommendations for the implementation of the NSDI

### Deliverable 6: Final NSDI strategy and Final Report

- NSDI Strategy
- Final Report

## V. Reporting Requirements

The Consultant shall report to CEO of KCA and PIU Coordinator. All written reports will be provided in English. Written reports will be provided in agreed formats. English copies of all reports will be sent to the World Bank.

All Deliverables will be delivered to KCA in draft form and be the subject of a presentation to KCA and relevant stakeholders, after which the deliverables will be updated by the consultant based on comments from KCA and the presentation sessions. Each deliverable is subject to formal review and approval by KCA.

Presentations of deliverables may be virtual or in person, as may be agreed by the KCA and consultant. Workshops/ Seminars will be in person if possible (and Covid restrictions permitting).

## VI. Period of Performance and level of effort

The project is envisaged to require **sixty (60)** man-days of effort to be completed within an elapsed period of **six (6)** months. Within these 60 man-days includes twenty (20) man-day as field work. It is the intention to start the project in October 2022 and to finalize it in March 2023.

### Table 1 Preliminary project schedule

The table below provides a provisional time scale for the implementation and delivery of all deliverables.

Phase	Work stream	Month
Project Start		Month 1



	Workshop/seminar with Key Stakeholder;; to review current situation and existing NSDI strategy; identify where changes needed; what are the key issues and how to approach	
<b>Phase 1 Definition of Strategic Mission/Vision</b>		
	Define Strategic Mission, Vision and Objectives	
	List the key stakeholders	
	<b>Deliverable 1:</b> Delivery of a definition of the Strategic Mission/Vision and Objectives: including presentation and updating after feedback / comments	Month 2
<b>Phase 2 Presentation of Finance-related issues</b>		
	Define NSDI-Funding and Partnering Models	
	Estimate the Costs - Benefits	
	<b>Deliverable 2:</b> Delivery of definition of the Finance-related issues for NSDI-implementation including presentation and updating after feedback / comments	Month 3
<b>Phase 3 Definition of Governance structure</b>		
	Define Governance Structures	
	<b>Deliverable 3:</b> Delivery of definition of Governance Structures including presentation and updating after feedback / comments	Month 4
<b>Phase 4 Outreach and Capacity Building</b>		
	Outreach and Capacity Building	
	<b>Deliverable 4:</b> Delivery of Outreach and Capacity Building including presentation and updating after feedback / comments	Month 5
<b>Phase 5 Delivery of NSDI Implementation Roadmap</b>		
	<b>Deliverable 5:</b> Delivery of NSDI Implementation Roadmap, completed NSDI Strategy and Final Report	Month 5
	Workshop/seminar with Key Stakeholders to present the revised strategy, receive comments and update after feedback	
<b>Final NSDI strategy and Final Report (Deliverable 6)</b>		
Project Close		Month 6

## VII. Payment Schedule

The payment will be realized upon deliverables in phases listed below:

- 20% of contract price upon approval of deliverables “Deliverable 1: Definition of Strategic Mission/Vision” and “Deliverable 2: Presentation of Finance-related issues”
- 30% of contract price upon approval of deliverables “Deliverable 3: Definition of Governance structure and Deliverable 4: Delivery of Outreach and Capacity Building”

- 50% of contract price upon approval of “Deliverable 6: Final NSDI strategy and Final Report”

### **VIII. Required experience and qualifications**

- a) The consultant should have a minimum Master’s degree in Computer Science, Information Systems, Geomatics, Geography, Spatial Planning or a related field
- b) The consultant must have international experience (more than two countries) in working as a NSDI expert, particularly in the domains of developing NSDI Strategies, NSDI Training, and NSDI Roadmap definition with at least 10 years of experiences in NSDI-related projects.
- c) The consultant should provide evidence of a proven track record in providing strategic advice for NSDIs with supporting evidence of developing successful NSDI strategies (for evidence, the consultant must provide reference / contact details for at least two such projects)
- d) The consultant should demonstrate familiarity with EEU INSPIRE Directive together with specific evidence of how this knowledge has been applied to the development of NSDI strategies (evidence may be demonstrated by involvement in relevant projects / research programmes, specific NSDI initiatives, etc.).
- e) Proven experience in the applying EU INSPIRE directive in the context of NSDI technical architecture and the legal aspects affecting data exchange, intellectual property protection and copyright.
- f) Finally, the consultant shall be fluent in English while knowledge of Albanian language would be an asset.

#### **Selection Process**

The consultant will be selected based on:

- General Qualifications (20%)
- Relevant work experience in the domains of NSDI Strategy development (40%)
- Relevant work experience in the application of the EU INSPIRE Directive (25%)
- Training experience in the domain of NSDI (15%)

“Experienced and qualified individuals will be selected according to the World Bank’s Procurement Regulations for IPF Borrowers’ (the Regulations), issued in July 2016, and revised November 2017 and August 2018, based on an open call for Individual Consultants (IC) Selection”.

### **IX. Consultant and Client Obligations**

The consultant will use its own office equipment, and other facilities to undertake the work. The consultant will be supplied with office space to work in KCA premises. The Client will provide

logistical assistance and provide data, information, and access to the Ministry of Environment, Spatial Planning and Infrastructure (MESPI) and help obtain appointments with other stakeholders and advice as requested.