

TERMS OF REFERENCE
INTELLIGENT TRANSPORT SYSTEMS EXPERT
TRADE AND TRANSPORT FACILITATION PROJECT IN NORTH MACEDONIA

1. BACKGROUND

The purpose of these Terms of Reference is to define the scope of work and tasks of the Intelligent Transport Systems Expert of the Project Implementation Unit (the PIU) set up in the Ministry of Transport and Communications in North Macedonia, integrated for implementation of the two projects, Western Balkans Trade and Transport Facilitation Project and Local Roads Connectivity Project. The Western Balkans Trade and Transport Facilitation Project will be implemented in its first phase in Serbia, North Macedonia and Albania and the Local Roads Connectivity Project will be implemented only in North Macedonia. The Project Implementation Unit (the PIU) is staffed with different expert profiles in order to carry out complete project management for the two projects, Trade and Transport Facilitation Project and Local Roads Connectivity Project.

The Western Balkans Trade and Transport Facilitation Project Phase 1 includes a combination of investments, technical assistance and regulatory and institutional reforms. It will primarily focus on adoption and implementation of a National Single Window (NSW) solution, improvements in border crossings in selected trade corridors, BCP at Deve Bair and BCP at Kjafasan, deployment of an Intelligent Transport System (ITS) on the A1 motorway, which is part of Corridor X, and technical assistance.

The Ministry of Transport and Communications (the Client) intends to engage a highly qualified individual consultant - Intelligent Transport Systems (ITS) Expert to provide services as a full time member of the PIU. The successful candidate will work closely with the Ministry of Transport and Communications, and other relevant stakeholders to ensure that the Intelligent Transport Systems (ITS) related activities of the project are managed efficiently both technically and in compliance with the objectives of the Project Appraisal Document (PAD), the Project's Legal Agreement and Financing Agreement, and the Project Operations Manual. The consultant, always aligned with the Project Director and in collaboration with the other Project Officers, shall interact and liaise with a significant number of different ministries through their focal points, units and agencies and also a number of other external bodies, contractors, consultants, World Bank, partners, and other agencies in the Western Balkans at the same time. Creativity, initiative, analytical capacity and team work are therefore required to cope with such diverse demands and actors, which makes working experience in the Region desirable and similar working experience on an international Intelligent Transport Systems (ITS) operation essential. The main challenge is to ensure that the contractors/consultants produce an acceptable quality of work within the budget allowances and time, so that the objectives of the Project are achieved.

2. GENERAL INFORMATION

Individual Consultant Title: Intelligent Transport Systems (ITS) Expert of the Project Implementation Unit, Trade and Transport Facilitation Project. The Consultant shall report to the Project Director, linked to the Minister of Transport and Communications.

3. POSITION IN ORGANISATION

Immediate superior: The Project Director

4. MAIN POSITION OBJECTIVE

To plan, monitor, control and give technical advice on all the ITS related activities to ensure their incorporation in alignment with the international good practices. This will be done in close cooperation with the Project Director, the contractors and consultants, and other agencies involved in the ITS procedures (as described in the Project Operation Manual). In addition, he/she will develop, according to the project cycle and Procurement Plans, the implementation of activities as per contract specifications and in compliance with legal/regulatory framework of the World Bank. Thus, he/she will ensure that the works, goods and services are satisfactorily completed on time and within budget aligned with the contractual requirements.

5. PRINCIPLE RESPONSIBILITIES

The Intelligent Transport Systems (ITS) Expert of the PIU will be responsible for the following duties:

- Prepare, supervise monitor and manage all ITS related activities included in the Western Balkans Trade and Transport Facilitation Project;
- Analyse all functional and technical requirements of the project activities, provide feedback for improvement to the Project Director and assist in their inclusion and implementation;
- Support authorities in transposition, adoption, implementation of relevant ITS standards;
- Support authorities in adoption and implementation of EU architecture and framework (FRAME);
- Support authorities with strategic development of ITS (strategies, action plans etc.) and harmonization with relevant EU framework (e.g Directive 2010/40).
- Provide ITS technical expertise input into Transportation master planning;
- Provide technical support to key stakeholders in planning proposed activities, which would include development of an ITS architecture, an action plan, and recommended assignments of roles and responsibility;
- Assess ITS service needs based on the current and future transport challenges and identifying key priorities for ITS service;
- Condition assessments of existing ITS infrastructure and assets as well as technology lifecycle planning;
- Evaluate the feasibility, design and reliability of available information systems.
- Recommend hardware and software, products and services;
- Recommend on technological and financing/investment options for the ITS;
- Develop a scope of work as required to acquire and maintain new and upgraded ITS hardware, software and maintenance agreements;
- Establish the program requirements for all areas of the project, and monitor the draft and final deliverables for adherence to these criteria;
- Support development of ITS system requirements and design documentation;
- Manage the development, implementation and maintenance of ITS technology, including data acquisition, storage and safeguarding;
- Provide managerial and administrative support to the involved experts and other parties in the Project;
- Assist and work together with the other Project Officers on ITS related activities;
- Liaise with the Procurement Officer, Project Director and with all the relevant departments / beneficiaries / agencies / Ministries and their Focal Points in the process of preparation of ITS

related Bidding Documents, Technical Specifications, Requests for Proposals, Terms of Reference, Monitoring Reports, etc.;

- Review, evaluate and provide feedback to the Project Director on the ITS technical documentation, designs, and schedule;
- Prepare ITS related Technical Specifications, Terms of References, etc. for the Bidding Documents and Requests for Proposals;
- Provide relevant technical inputs to the Procurement Officer and Project Director;
- Provide technical evaluation of the ITS related activities during the tendering process (evaluation and selection) and participate in evaluation committee when it comes to procurement of ITS goods, services or works;
- Ensure full implementation of the ITS activities in relation with the timeline/critical paths and expenditures;
- Conduct regular on-site visits and control, supervise the contractors'/consultants' performance;
- Verify, validate and confirm all contractors/consultants expenditures declared in the payment certificates/invoices;
- Control the quality of execution of the relevant project activities, identify the areas for improvement and ensure implementation of corrective measures;
- Conduct regular on-site visits for design and procurement verification, validation and confirmation; this should lead to high quality execution, identification of areas for improvement and both conception and implementation of a corrective action plan;
- Ensure all reporting mechanisms (as reflected in the Project Operations Manual) and documentation systems are in place, including drafting relevant reports to the World Bank and the Project Director: Cost, Time, Resources, and Scope (along with Performance related measures, Quality, HSE & environmental);
- Issue relevant Monthly Progress Reports to the Project Director and brief him/her minimum once a week on progress and challenges while providing sound solutions to overcome implementation difficulties;
- Assist the Project Director in preparing the PIU Reports (quarterly, midterm and completion);
- Participate in internal or external ITS related events and deliver feedback/project briefs to the MoTC and Project Director.

6. DURATION AND LOCATION

It is expected that the period over which the consultant shall provide the Services will be 36 months, in all cases not less than up to the end of the full implementation of the Sub-Component for Deployment of Intelligent Transport Systems on the A1 motorway in the Country. The assignment is full time and the Consultant should be available to commence in 30 days after the present notice will be published. He/she should be available to provide services for at least 8 hours each day, Monday to Friday, for a minimum period of 40 hours per week. The remuneration will be paid on a monthly basis. Subject to notice being provided, the Consultant may take up to 25 days leave each year, but remuneration will not be paid during any period of leave. The Consultant will be stationed in the PIU premises in Skopje, but should be ready to travel throughout the country for attending meetings. The Consultant will be offered opportunities to develop professionally by attending relevant training events and courses during the term of the contract. A downstream work might be needed, in case of extension of the relevant Projects' duration, and subject to Client's business needs under the Projects as well as subject to consultant's satisfactory performance.

7. REPORTING REQUIREMENTS

The Consultant will provide Monthly Progress Reports, within 5 (five) days after the end of month for which the report is due. The report should contain at least: (i) the status of progress, problems encountered, corrective actions needed, rationale for actions; and (ii) current timing and costs of Intelligent Transport Systems component and estimated delays and costs of completion. The Consultant shall prepare ad-hoc reports on any major project issues raised during Project implementation at the Project Director, Client or Bank's request.

8. SERVICES TO BE PROVIDED BY THE CLIENT

The Client will be responsible for provision of the following:

- Fully equipped office space, with access to Internet, local telephone line, printing, photocopying and document binding;
- Access to necessary documents; and
- Where the Consultant is required to travel, to site or elsewhere in accordance with the Client's instruction, transportation costs will be borne by the Client.

9. KNOWLEDGE, EXPERIENCE, SKILLS AND COMPETENCIES

a) Educational qualifications: At least a University Degree in Civil Engineering / Transport Engineering / Electrical Engineering / Mechanical Engineering / Information Science / Information Technology (where a university degree has been awarded on completion of a minimum of three years of study in a university or equivalent institution);

b) Area of professional expertise: Intelligent Transport Systems/Road safety/Road Traffic Management;

c) Years of experience: Minimum of 7 years of relevant professional experience in Intelligent Transport Systems/Road safety/Road Traffic Management;

d) Required skills and competencies:

Skills/Competencies	Required	Desirable
Technical	Experience with at least 1 assignment / project on road ITS deployment Computer skills: Word, Excel, scheduling tools (eg: MS Project or similar)	Regional working experience on ITS deployment of size and scope similar or larger than the ones required with the project. ITS Architecture and Standards
Management	Self-Planning & Organizing, Problem Solving, Communication, Teamwork, Initiative	
Business	Excellent Knowledge of English language (reading, speaking and writing)	Knowledge of Macedonian language