MONTENEGRO
Ministry of Transport

Western Balkans Trade and Transport Facilitation Project – WB TTFP phase 2

International Consulting Firm

Terms of Reference

for

Maritime ITS Strategy of Montenegro 2027-2037
Ref. No: MNE-WBTTFP-94710-CS-CQ-25-2.2.3

1. PROJECT BACKGROUND

The Loan Agreement for Montenegro's Western Balkans Trade and Transport Facilitation Project (TTFP) Phase 2 was signed on 13 February 2023 and will close on 30 April 2028. The Project objective is to reduce trade costs and increase transport efficiency in Montenegro by streamlining the processing of international trade and transport documentation for both traders and the administrations. The key benefit will be more efficient processing of international trade and transport documentation. Such efficiencies will enhance the transparency of transactions and reduce duplications and overlaps. The envisaged significant cost savings are expected to result in lower transport costs, reductions in GHG emissions associated with the decrease in truck idling time, reduced administrative costs to trade, and finally in increased competitiveness on regional and global markets.

The TTFP Phase 2 aims to enhance climate resilience of Montenegro's transport sector, through targeted infrastructure activities to enhance climate resilience at railway level crossings; by introducing an early warning system and a corridor monitoring observatory; and by enhancing institutional capacity through the provision of studies, guidelines, and integration of climate resilience considerations. Improving the resilience of the transport network is a part of the Transport Community Treaty (TCT), Sustainable and Smart Mobility Strategy for Western Balkans and as well as Sofia Declaration on Green Agenda for Western Balkans all of which Montenegro is a party too.

The Project consists of the following components:

Component 1: Facilitating movement of goods across the Western Balkans

The component will focus on (i) the design and implementation of a National Single Window (NSW) solution for trade; and (ii) Preparation of the technical designs for the new customs inspection facility at the Port of Bar and procurement of related equipment. This component supports Montenegro's regional and international commitments, including the CEFTA AP5, the Transport Community Treaty, and the World Trade Organization (WTO) Trade Facilitation Agreement (TFA).

Component 2: Enhancing transport efficiency and predictability

This component focuses on (i) the development of a Port Community System (PCS), (ii) the improvement of Railway Level Crossings (RLC), (iii) development and update to various transport sector strategy documents, and (iv) the preparation of the corridor monitoring system.

Component 3: This component will **support the implementation of commitments** to improve market access in services and foster regional investments

Component 4: Support to project implementation units (PIU)

This component will support the PIU and provide additional technical support, including policy coordination, operating costs, and monitoring and evaluation of the Project.

Ministry of Transport (MoT) is the umbrella ministry under which the transport sector falls and will serve as the lead implementing body for the project and is responsible for forming and the recruitment of the PIU staff. The MoT and TTFP Phase 2- PIU will be supported by the TSU of the Ministry of Finance in FM and procurement functions of the Project.

In addition to MoT, there are several other beneficiaries of the Project:

a. Ministry of Maritime Affairs

b. the Customs Administration (CA);

c. the border police under the Ministry of Interior;

d. the Railway Infrastructure of Montenegro;

e. the Port Authority of Bar, along with Luka Bar and Port of Adria;

f. Transport Administration and Monteput doo.

Beneficiaries of the Project include but are not limited to producers, traders, exporters, importers, and transport service providers, as well as RCA and other agencies regulating import and export procedures. At the regional level, Permanent Secretariat of the Transport Community of the Southern Europe (TCT) will also benefit from the Project.

2. PRESENT SITUATION IN THE SECTOR (CONTEXT)

Montenegro is located in south-eastern Europe, on the coast of the Adriatic Sea, with current population of approximately 623,000 inhabitants. Montenegro has a small, open economy, strongly dependent on tourism, with GDP per capita roughly one third higher than the Western Balkan average. Montenegro benefits from direct access to the Adriatic Sea, primarily via the Port of Bar for the freight traffic, and via the ports and marinas in Boka Kotorska Bay for the passenger traffic and tourism.

Montenegro's coastal area can be divided into two parts, first from Platamuni (Budva) to Cape Oštro (comprising Bay of Boka) under the jurisdiction of Harbour Master's Office (HMO) Kotor and second from Platamuni to River Bojana (Ulcinj) under the jurisdiction of HMO Bar.

The Port of Bar is the major seaport for cargo traffic in Montenegro. Covering about 130 hectares of developed coastal area, 70 hectares of port waters (aquatorium), with 22 berths, and terminals for bulk, liquid, general cargo, containers, and passengers. It is capable of handling about 5 million tons of cargo each year. According to the spatial planning documentation, additional 200 hectares is reserved for further development of the port.

There are two operators in the area of the port: "Luka Bar" AD, with majority state capital, and the legal entity "Port of Adria" AD (since 2013 the private company Global Ports Holding from Turkey has 62% share ownership). The main activity of "Luka Bar" AD is traffic of dry bulk, liquid, general cargo, ferries, and of the "Port of Adria" AD, the traffic of containers, general cargo, roro and cruise.

Strategically, the Port of Bar is crucial for Montenegro's economy since most of the country's overseas trade passes through it, reinforced by strong transport links, including the Belgrade–Bar railway, the Sozina Tunnel, and the A-1 motorway, which connect the Adriatic coast with the capital Podgorica and further toward Serbia.

As part of a designated Free Zone, the port also offers customs and tax incentives, making it not only a vital national hub but also an attractive point for regional trade and logistics.

The Boka Kotorska Bay, on the other hand, due to its natural beauty and specific geography, is a hot spot for yachting and cruise tourism, attracting numerus yachts and a big number of cruise ships, especially during the summer season. In addition, there is a regular traffic of small ferries transporting passengers and cars by crossing the Verige strait.

It goes 28 km into the mainland, with the length of the coastline of 105.7 km, and the entrance which is less than 3 km wide. It consists of four smaller Gulfs (Gulf of Herceg Novi, Gulf of Tivat, Gulf of Risan, and Gulf of Kotor).

The port of Kotor for many years handles significant amounts of passenger - cruise ships, and that trend continues to grow every year. In addition to Kotor, in the Bay are located Porto Montenegro (Tivat) – the largest marina for superyachts in the Adriatic, Portonovi - luxurious marina in Kumbor, and Adriatic 42 (Bijela) - new ship repair center for mega and super yachts.

In addition to sea coast, the traffic on Lake Skadar is also significant, primarily carried out by smaller ships and boats, but also relatively larger vessels. As tourist tours and passenger boating are becoming more popular, this puts additional presure on traffic monitoring requirements and ensuring safety of navigation. Although a lake, the traffic on Skadar is formally treated as maritime in accordance with Montenegrin law.

In line with these specific traffic monitoring requirements and need for ensuring safety of navigation, several ITS systems are either implemented or planned for implementation. In the first line, these are the Vessel Traffic Monitoring and Information System (VTMIS), National Maritime Single Window (NMSW), and National Port Community System (PCS).

VTMIS is carried out in cooperation with the Port Authority and administrative authorities with vessels that sail or are located in the internal sea waters, territorial sea and epicontinental zone of Montenegro. The system is implemented in order to increase the safety of maritime navigation, the efficiency of maritime traffic, and the protection of maritime space.

VTMIS equipment installed in first phase is located in Dobra Voda (Bar), Obosnik (Luštica peninsula), Crni rt (Sutomore), Mavrijan (Ulcinj). The equipment include: marine radar system, radio communication system, coastal system of automatic identification of ships, weather stations, electronic cartography, radio direction finder, as well as a spare link network.

The second phase of VTMIS is implemented in 2024, which additionally covers Boka Kotorska, as well as the Skadar Lake basin, including the Bojana River. Second phase includes the installation of modern sensor stations forming the technical backbone of the traffic management and monitoring system, including: Solid State Radars radars, VHF radio stations, AIS (Automatic Identification System) transponders, CCTV for video surveillance, transmission links, meteorological stations. Sensor station locations of second phase are: Rt Kobila, Portonovi, Turski rt, Dražin vrt, Port of Kotor and Stegvaš for covering Lake Skadar and River Bojana.

On the other hand, NMSW is implemented in Montenegro since 2024, with the aim of simplifying and digitalizing the procedures for announcing the arrival and departure of ships in Montenegrin ports. This system is designed to reduce the administrative burden on ships and contribute to improving the efficiency and environmental sustainability of shipping in Montenegro.

As part of TTFP2, a comprehensive national PCS will be developed, with the aim of becoming a trusted and neutral – public/private data collaboration platform – orchestrating, streamlining and optimizing inter-organizational business processes - between maritime supply chain stakeholders - through a single submission of data, reducing paperwork, and improving efficiency in port operations and logistics.

At the domestic level, besides laws and bylaws, the main sectoral strategic documents covering aspects of digitalization and maritime ITS are the Transport Development Strategy 2019-2035 (to be updated in 2026, including developing of national ITS strategic framework) and the Strategy for Development of the Maritime Economy 2020-2030.

Development of ITS is especially emphasized in the Smart and Sustainable Mobility Strategy for the Western Balkans (SSMS) which specifically highlight the importance of the development of an e-maritime concept, in addition to the implementation of VTMIS, for which phase II is currently being implemented in Montenegro. The ITS strategy for maritime affairs will also explore how ITS can improve maritime transport operational efficiency, reducing GHG emissions, and enhance resilience to climate change impacts.

Safety at sea, pollution prevention and consequently, the preservation of biological diversity of the Adriatic Sea is a condition sine qua non of sustainable development of Montenegro. The primary responsibility for the execution of these tasks lies mainly with the Administration for Maritime Safety and Port Management (AMSPM).

The key objectives and the scope of this study are presented in the sections 4 and 5 below.

3. INSTITUTIONAL ARRANGEMENTS

The **Project Implementation Unit (PIU)** within the **Ministry of Transport** will oversee the implementation of this assignment.

The **Consultant** will work closely with relevant stakeholders ensuring compliance with **Montenegro's policies, EU regulations, and international best practices**.

The relevant stakeholders include, but not limited to:

- Ministry of Transport (MoT)
- Ministry of Maritime Affairs (MoMA)
- Ministry of Public Administration (MPA)
- Administration for Maritime Safety and Port Management (AMSPM)
- Customs Administration
- Port of Bar JSC
- Port of Adria JSC
- Harbor Master's Offices – Kotor and Bar
- Port of Kotor Ltd. (managing Port of Kotor)

Harbour Masters Offices have responsibilities over Ship formalities, Port State Control inspections, ship registry and the issue of licensing for seafarers.

AMSPM is a state body depending from the Ministry on its legal performance. The main responsibilities of AMSPM are: the safety of navigation in the territorial sea and internal waters, search and rescue, maritime radio communication, aid to navigation, ship reporting system (ADRIREP), ship statutory inspections, yacht registry, yachts safety technical inspections and environmental protection in the maritime coastal and internal waters.

The overall responsibility for the development, management and coordination of the transport sector in Montenegro and maritime transport lies with the Ministry of Transport and the Ministry of Maritime Affairs.

4. OBJECTIVES OF THE ASSIGNMENT

The objective is to prepare a strategy that establishes the framework for harmonized planning and successful ITS implementation in the maritime sector in Montenegro.

The activity will include:

(i) assessment of the current situation of maritime ITS aspects in terms of policy framework, legal approximation as per Annex I of Transport Community Treaty, institutional and technological framework,

(ii) development of the vision to achieve harmonized national maritime ITS implementation and strategic objectives related to the operation, maintenance and planning of new systems and solutions, and

(iii) development of measures for achieving the strategic objectives and implementation of roadmap and monitoring indicators.

Development of ITS is especially emphasized in the Smart and Sustainable Mobility Strategy for the Western Balkans and in the European Commission's Smart and Sustainable Mobility Strategy which specifically highlight the importance of the development of an e-maritime concept, in addition to the implementation of VTMIS, which is practically completed in Montenegro. The ITS strategy for maritime affairs will also explore how ITS can improve maritime transport operational efficiency, reducing GHG emissions, and enhance resilience to climate change impacts.

In addition, the strategy should form a solid basis for coordinated planning, implementation, expansion and development of different ITS maritime systems ensuring system compatibility, transport efficiency, and fulfilment of EU negotiation requirements.

5. SCOPE OF WORK

The main objective of development of the ITS Maritime Strategy for Montenegro is to, among other, explore possibilities for **deployment and expansion of ITS smart solutions**, with the aim of:

- Improving **navigation safety & traffic management** using the systems and tools such as:

✓ **VTS** (Vessel Traffic Services) – radar, AIS, real-time vessel monitoring, etc,

✓ **VTMIS** (Vessel Traffic Monitoring and Information System),

✓ **SafeSeaNet (EMSA)**,

✓ **e-navigation systems**, integrating navigational signalization and aids (charts, GPS, AIS, communications) in accordance with IMO/IALA rules,

✓ **maritime surveillance systems**, including satellite-based solutions and other relevant navigation supports such as modern radar, LIDAR (Light Detection and Ranging), satellite-based AIS, LRIT (Long Range Identification and Tracking), etc,

✓ Training simulators, decision support systems, etc.

✓ **search and rescue (SAR) digital tools.**

- Improving **sustainability and environment protection** using the systems and tools such as:

✓ real-time data analytics,

- ✓ weather and environmental monitoring systems,
- ✓ safe navigational routing systems (to optimize the flow of vessels in and out of ports),
- ✓ emission monitoring and reporting systems,
- ✓ green routing and voyage optimization tools,
- ✓ alternative fuels monitoring platforms.

- o Improving **port and hinterland efficiency**:

- ✓ **NMSW** (National Maritime Single Window),
- ✓ **NPCS** (National Port Community System),
- ✓ **PMIS** (Port Management Information System),
- ✓ Terminal Operating System,
- ✓ Rail Managament System,
- ✓ Customs Management System.

- o Improving **cybersecurity** using:

- ✓ cybersecurity frameworks for maritime.

o Boosting **innovation** by exploring relevant emerging digital technologies with potential applicability to maritime ITS and port operations, on an indicative and non-binding basis, including, for example, the following:

- ✓ IoT-enabled smart solutions,
- ✓ Artificial intelligence,
- ✓ Autonomous system,
- ✓ Digital Twin,
- ✓ Quantum Computing.

Building upon the existing studies such as, among other, the study Multimodality at the Port of Bar (FWC SIEA 2018) or updated Transport Development Strategy 2019-2035 with the national transport model (WB, ongoing), in cooperation with MoMa/MoT, this analysis might also include carrying out **maritime traffic analyses and forecasting** to understand both current and future traffic patterns, where needed, namely:

- Analysis of the historical data and existing maritime traffic and traffic patterns;
- Surveying and traffic counting in the relevant periods (peak of the season) at relevant locations (to be confirmed in cooperation with MoMa);
- Forecasting future maritime traffic and traffic patterns (for example 5-year, 10-year, and 20-year scenarios), considering relevant hydrographic and climate change aspects;
- Identifying major navigational bottlenecks and safety risks.

To achieve all the above objectives, the Consultant will carry out the following tasks:

Task 1. Gap analysis, Diagnostic and Needs Assessment

The goal of this task is to provide an independent analysis and create a solid foundation for the development and implementation of Intelligent Transport Systems (ITS) in Montenegro's maritime sector.

This requires a detailed assessment of country's existing legal and institutional framework, (including strategies, laws, bylaws, standards, etc), and the state of play for ITS applications already in use.

At the same time, Montenegro's framework must be aligned with the EU acquis and EU's best practice, especially obligations under the Transport Community Treaty (TCT), ensuring that domestic legislation progresses toward full legal approximation with European standards, negotiation requirements, and TCT Action Plans.

The task also aims to capture the operational reality of Montenegro's maritime system. This includes mapping all key stakeholders, assessing current infrastructure, technologies, and ITS applications already in use, or planned for implementation. By evaluating both physical and IT capacities, as well as operational practices, the analysis will provide a clear picture of the sector's strengths and limitations, including the readiness of various actors to adopt modern ITS solutions.

Finally, the task's goal is to bridge the gap between Montenegro's current state and international best practices in maritime ITS. By identifying institutional, regulatory, technical, and capacity gaps, the work will highlight what needs to be improved to achieve alignment with EU systems and relevant global maritime standards.

The preparation of a comprehensive Gap analysis, Diagnostic and Needs Assessment Report will ensure that findings, methodologies, and engagement approaches are clearly laid out, serving as a roadmap for the effective planning and implementation of maritime ITS in Montenegro.

The main goals of task 1 shall include, but not limited to:

- Analyzing the existing legal (strategies, laws, bylaws, standards) and institutional framework, relevant for implementation of maritime ITS in Montenegro and aspects of digitalization in maritime traffic in line with EU standards;
- Assessing the EU acquis (and global maritime standards) relevant for digitalization of maritime transport and implementation of maritime ITS, with special emphasis on legal approximation as per Annex I of the TCT and status of implementation in domestic law;
- Stakeholder mapping (ministries, port authorities, shipowners, logistics operators, customs, IT providers) and assessment of industry potentials;
- Assessing the current state of maritime operations, existing digital and relevant physical infrastructure;
- Assessing the existing ITS systems and other IT applications in Montenegro's maritime sector (such as VTMIS, PCS, NMSW), the state of play, scope of application (coverage), benefits for the traffic and procedures efficiency and safety of navigation, potential shortcomings, potential for systems expansion, etc;
- Description and assessment of the existing relevant maritime facilities, vessel fleets, traffic and communication systems, nautical, meteorological and climate data, traffic data, etc;
- Reviewing operational and safety procedures and navigation practices relevant for implementation of ITS in maritime traffic in Montenegro;

- Assessing the latest EU and international maritime best practices and identify institutional, regulatory, technical, and capacity gaps in the sector;
- Introducing baseline KPI's to enable tracking of progress and ensure accountability in further implementation. KPI's to be further developed within Task 2;
- Preparing detailed Gap analysis, Diagnostic and Needs Assessment Report summarizing the main findings from task 1, including methodology, work plan, and stakeholder engagement approach.

Upon completion of the Task 1, Consultant will deliver **Gap analysis, Diagnostic and Needs Assessment Report** documenting **all the findings and presenting them in a suitable and understandable format (incl. e.g. SWOT or similar)**.

Task 2: Strategic Vision and Implementation Roadmap

The goal of this task is to define the strategic direction for the development of maritime ITS in Montenegro's maritime sector. Building on the findings of the diagnostic phase, the task 2 will set out a long-term vision, guiding principles, and clear objectives of the maritime ITS implementation, aligned with the EU maritime ITS policies and standards.

This includes defining both policy-level and sector-specific objectives, supported by key performance indicators (KPIs) that will enable tracking of progress and ensure accountability in implementation.

In addition to setting objectives, the task focuses on identifying and appraising different options for the implementation, further development and planned expansion of maritime ITS systems in Montenegro. These options must be evaluated in terms of their contribution to safety, security, efficiency, simplification of traffic and customs procedures, interoperability, sustainability, and innovation, while also considering the aspects of reducing GHG emissions, protecting the environment, and enhancing resilience to climate change.

Based on this, a preferred option will be selected as the most effective pathway to achieve the strategy's goals, and detailed measures will be outlined across ITS applications, physical infrastructure, operational, and organizational dimensions.

Finally, the task aims to translate the strategic vision into a practical and actionable roadmap. This roadmap will cover short-, medium-, and long-term priorities, highlight feasible financing sources, and provide institutional and regulatory recommendations to support implementation.

Through structured stakeholder consultations, the strategy will ensure that all relevant actors are engaged, and that the resulting framework is realistic, widely supported, and geared toward aligning Montenegro's maritime sector with EU, international standards, and best practices in ITS development and digitalization.

The main goals of task 2 shall include, but not limited to:

- Defining the long-term vision, guiding principles, and strategic objectives of the maritime ITS Strategy for Montenegro, based on inputs from task 1 while ensuring alignment with **EU ITS policies and practices**;
- Definition of policy-related and specific (from diagnostic/analysis) objectives;
- Definition of **Key Performance Indicators (KPIs)** related to the above objectives to track sectoral progress;

- Definition and appraisal of at least 2-3 options for the development of progressive maritime ITS systems and solutions to improve maritime traffic efficiency (traffic management, navigation, operational procedures, etc), considering the aspects of safety and security, efficiency, interoperability, sustainability, digitalization, innovation, reducing GHG emissions, environment protection, and enhancing resilience to climate change - while ensuring coherence between different ITS systems;
- Recommendation of a preferred option based on proving its ability to best meet the set-out objectives;
- Elaboration of list of applications, infrastructure, operational and organizational measures under the selected option;
- Development of short, medium and long-term Roadmap with prioritized measures, including identification of potential financing sources;
- Develop institutional and regulatory recommendations to support implementation.

The above will all be subject to appropriate stakeholder consultation. Upon completion of the task 2, the Consultant will prepare the **report summarizing the main findings**. The report will include the Vision, defined objectives and KPIs, as well as plan options assessment and selection that should lead to meeting defined objectives.

Task 3: Draft ITS Maritime Strategy for Montenegro 2027-2037, with Implementation Plan and Action Plan 2027-2028

Under this activity, all findings and agreements reached during the engagement will be summarized in the ITS Maritime Strategy for Montenegro 2027-2037, with Implementation Plan and Action Plan 2027-2028.

It should describe Government's goals and provide convincing narrative on how the proposed plan measures will help the Government to achieve the defined mission and vision and objectives of the sector.

The selected plan option, after final consultations with key stakeholders, will be developed into a detailed Implementation Plan, setting out timetables, responsibilities and mechanisms. Implementation plan covers full period of the duration of the Strategy.

The Implementation plan will set out investment and soft priorities as well as cross cutting issues, timetables, responsibilities and mechanisms, based on the assessment of available finance and associated costs. Implementation plan should promote the digitalization, safety of navigation, traffic efficiency, reducing operational, traffic and customs procedures, increasing capacities, climate resilience, gender issues, etc.

The Implementation Plan will be defined in a way that can feasibly attain the objectives and planned measures defined under task 2. This will summarize the findings from the previous activities and provide the verbatim for the substantiation of the proposed actions.

The Implementation Plan will have a clear list of prioritized activities, hard and soft, with estimated costs and duration, responsible entities, related KPI(s), and recommended monitoring mechanisms.

Prioritization will be based on objective assessment against a set of criteria taking into account the desirability, urgency, feasibility and level of preparation of the identified plan measures/projects, including reflection of interrelations between them. Basic viability assessment for high profile priority interventions will be provided.

The Implementation plan should ensure that maritime sector continues to perform its functions while being gradually restructured. Special attention should be given to policies and practices that foster the use of sustainable and safe transport operation.

It should also provide sensitivity analysis taking into account various realizations scenarios – successful, moderate, and low realization scenario – and their impacts. It should be linked with the KPIs and provide mechanisms for monitoring of the strategy implementation and performance. Upon completion, the Draft ITS Maritime Strategy for Montenegro 2027-2037, with Implementation Plan and Action Plan 2027-2028, will be presented to the MoMA, MoT and other relevant stakeholders.

The task should also recommend a performance management-monitoring plan enabling MoMA/MoT to regularly assess the implementation progress of proposed policies and achieved results.

The Policy Paper should take into consideration expected effects from the coordinated development. The task will be completed through iterative process ie. through delivery of the summary of findings from the previous activities and option-based recommendations. After consultations, the final Policy Paper will be delivered to the MoMA/MoT.

In addition, a separate, detailed Action Plan for the period 2027-2028 should be prepared, in line with the requirements from the domestic strategic planning regulation.

The Consultant will ensure the whole process, including the procedure of Government adoption, requirements of Strategic environmental impact assessment, the feedback from relevant stakeholders, and any other formal requirements, are met smoothly.

The main goals of task 3 shall include, but not limited to:

- Based on the findings from task 1 and task 2, define the strategic framework for the new, digital and future-proof maritime transport system, which enhances navigation precision, safety, use of smart solutions, and operational efficiency, while minimizing environmental impacts;
- Strategic recommendations related to the systematic expansion of the existing maritime ITS systems (VTMIS, NMSW), and coordinated, well-informed, and successful deployment of future maritime ITS systems, enhancing synergic effect of all systems, safety of navigation, and interoperability with other road, rail and air ITS systems
- Draft ITS Maritime Strategy for Montenegro for the period 2027-2037, including the Implementation Plan covering the whole period, and an Action Plan 2027-2028, incorporating stakeholder and government feedback.

An **economic and financial analysis** should be carried as well, in order to provide the government and financiers with clear, evidence-based insights into the expected return on investment, broader economic benefits, effects on safety of navigation, and the sustainability of maintenance and operational costs for the systems over the long term, for all major/high value priority investments, solutions and measures (including CBA). Exact criteria for a priority shortlist (for example 3-5 projects) will be confirmed with the MoMA/MoT, while for the other investments simplified economic screening will be carried out.

The Consultant shall prepare a **Risk Assessment and Mitigation Plan** as part of the assignment, identifying key risks that may affect the development and implementation of the ITS Maritime Strategy, including technical, institutional, financial, and stakeholder-related challenges. The Plan shall propose practical mitigation measures to address these risks, such as ensuring interoperability with existing systems, safeguarding against cybersecurity threats, securing sustainable financing, and

fostering stakeholder ownership. The Risk Assessment and Mitigation Plan will be integrated into the final Strategy and provide guidance for risk-informed implementation.

The Strategy will be harmonized with all relevant strategic documents in Montenegro (vertical and horizontal), as well as fully in line with national planning system regulation, including the **Regulation on the manner and procedure of drafting, harmonizing and monitoring the implementation of strategic documents** ("Official Gazette of Montenegro", No. 54/2018) and **Methodology for the policy development, drafting and monitoring implementation of strategic documents** (OEBS).

Cooperation is expected with consultant in charge of updating the Transport Development Strategy 2019-2035, to ensure harmonized approach, as general ITS Framework/Architecture will be developed as part of their ToR.

Upon completion of the task 3, the Consultant will prepare the **report summarizing the main findings**. The report will include the approved **Implementation Plan for the duration of the Strategy and a separate Action Plan for the period 2027-2028.**

Consultant will be responsible for offering **full support during the procedures of the Government adoption of the strategy** and adjust deliverables in accordance with the potential received comments or requests, including those from public consultations.

Task 4 Strategic Environmental Assessment (SEA)

Montenegro has aligned its legislation on strategic environmental assessments with the EU SEA Directive, 2001/42/EC[1]. The Montenegrin Law on strategic Environmental Assessment, SEA Act, 2005 as amended (Official Gazette of Montenegro 75/2018), is found here: SEA Act, 2005.

Strategic Environmental Impacts Assessments (SEA) are mandatory for plans and programs in the Montenegrin transport sector fulfilling the criteria for the needs assessment for SEA, in line with the Article 13 and other provisions of the SEA Act. The required procedural steps specified in the SEA Act include screening, scoping, SEA reporting, consultations and the issuing of a SEA decision.

Given the nature of the proposed ITS measures, and based on consultations with the Environment Protection Agency of Montenegro and other relevant institutions, the SEA shall be undertaken at an appropriate strategic level, focusing on cumulative, indirect, and systemic impacts, not requiring project-level environmental assessment of site-specific interventions.

Details on deliverables are found in chapter 7.

6. REQUIREMENTS

The service will be selected under the provisions of the World Bank Procurement Regulations for Borrowers under Investment Project Financing" dated September 2023 and February 2025 *(Sixt Edition)* and in accordance with Consultant's Qualifications Based Selection (CQS) and Lump-Sum Contract. The Bank requires that firms or individuals involved in Bank IPF procurement shall not have conflict of interest.
The Contractor will employ experts with appropriate professional qualifications and suitable experience in preparing all the outputs pertinent to this task. All experts must be independent and free from conflicts of interest in the responsibilities they take on. Backstopping and support staff costs are deemed to be included in the respective lump sum prices.

[1] Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment

The assignment will require a qualified consulting company or a joint venture that can demonstrate extensive experience in developing maritime transport studies and maritime ITS, and fulfilling the following conditions:

1. **General Qualification and Competences of the consultant (firm)**

Capacity, competences and organizational structure, of the Consultant firm (Company).
The Consulting firm must be a legal entity;

----------(Max **20 points** on this criteria).

2. **Qualification of the consultant (firm) relevant to the assignment**:

(i) *Specific Experience obtained under successful implementation of at least two (2) similar contracts in the role of prime supplier, management Supplier, JV member, or subcontractor. For contracts under which the Bidder participated as a Joint Venture member or sub-contractor, only the Bidder's share, by value, and role and responsibilities shall be considered to meet this requirement. The similar complexity of these projects in this context means and include activities of (1) design, development, and implementation of maritime ITS, (2) strategic documents or studies covering maritime ITS and/or maritime digitalization, (3) other relevant maritime transport or maritime safety studies, etc.*

(ii) *Required similar contracts presented as reference in (i) above, at least one shall have been delivered in either EU's or an EU accession country;*

(iii) *Professional staff generally available: List of the key staff that is generally available for this kind of work (without submission of bio data or CVs). The number of permanent staff of the consultant (individual company or joint venture overall) working in the fields related to this contract, must be at least 3 for each of the last three years (2023, 2024 and 2025);*

*For each submitted reference (Contract) the Consultant is required to enclose preferably the statement from the previous Client which unambiguously confirm that assignment has been successfully and substantially implemented. In addition, the Consultant firm shall prepare a table which consist following information: name of the assignment, short description of work done, year of contract's implementation, country/region, contact reference (name, e-mail, phone number).

----------(Max **80 points** on this criteria).

It is expected that the Consultant shall establish the Team in accordance with the needs and requirements of this ToR. The Team shall consist of a core team made of key experts with the qualifications and skills defined in the Table 1 below and non-key experts, as needed. The Consultant is obliged to ensure adequate staff in terms of expertise and time allocation, as well as needed equipment in order to complete the activities required under the scope of work and to achieve the objectives of this Contract in terms of time, costs, and quality.

The Team, as a whole, shall include experts familiar with Montenegrin maritime traffic and regulations. The team organization, proposed staff availability and number of working days assigned to specific activities and backup will be evaluated as one of the criteria within the evaluation of the proposed methodology and time schedule.

As part of the organization and methodology of the technical proposal, the bidders will need to demonstrate their capabilities to effectively mobilize highly qualified key experts to carry out the specific tasks and activities requested. In particular, the bidders need to submit the CVs of key and non-key experts (see Table 1) which will be mobilized immediately following the commencement date of the Contracts. However, only key-experts will be subject of evaluation.

The Team Leader with qualifications and skills given below will lead the Team. He/she will be the main contact for the Team and will interface with the Contracting Authority, PIU and other interested stakeholders. He/she will be supported by the Deputy Team Leader, who will replace the Team Leader when necessary. He/she should be responsible for ensuring high quality performance of the main outputs and deliverables and the timing implementation of the activities during the Contract execution.

The employment of local experts will be welcomed by the Contracting Authority, and such experts should form a part of the team carrying out studies. The Consultant should pay attention to the need to ensure the active participation of local professional skills, and to providing a suitable mix of international and local-staff in the Team.

Table 1: *Key qualifications and skills matrix*

Title	Qualifications / Experience	Skills
Key experts:	A Deputy Team Leader shall be appointed from one of the key or senior non-key experts who shall be familiar with the Montenegrin maritime transport and legislation and speaks fluently Montenegrin.	
Team Leader **Senior Maritime Transport/Policy Expert**	<u>Education:</u> A level of education, which corresponds to, completed university studies attested by a diploma when the normal period of university education is four years in traffic engineering, economics or law. <u>Relevant Professional Experience:</u> At least 12 years of professional experience acquired in maritime transport planning and/or maritime transport policy; Experience as a TL/Project Manager on at least two (2) projects related to strategic documents, maritime traffic studies or maritime safety studies, covering maritime transport policy, ITS or maritime digitalization. Experience as a TL or Key expert on projects related to design, policy development,	Proven ability to lead projects relating to strategic transport documents and complex maritime transport studies, including CBA. Strong leadership, planning and communication skills. Strong coordination skills. Strong analytical and report writing skills. Managing a team composed of international and local technical specialists Language: Excellent written and spoken English is required. Knowledge of Montenegrin language is an asset.

	and implementation of maritime ITS is an advantage.	
Maritime ITS Expert	Education: A level of education, which corresponds to, completed university studies attested by a diploma when the normal period of university education is four years in engineering. Relevant Professional Experience: At least 8 years of professional experience acquired in maritime transport sector; Experience as a TL or key expert on at least 2 (two) projects relating to the design, policy development, and implementation of maritime ITS (VTS, VTMIS, NMSW, NPCS, other relevant systems).	A thorough knowledge of ITS in maritime transport and good understanding of vessel traffic systems and automation and communication technologies in maritime transport. Language: Excellent written and spoken English is required.

Non-key experts	The Consultant is free to propose an appropriate non-key experts team composition considering that it is likely to require a mix of international and local experts with substantial international and developing country experience in a wide range of maritime studies, and advanced multi-disciplinary skills in a range of areas, including but not limited to: • Transport economist/CBA; • Maritime sector regulation, policy formulation and analysis; • ITS (covering VTS, VTMIS, NMSW, NPCS, other relevant systems); • Safety of navigation; • Institutional; • Maritime navigation/safety/hydrography; • Port operations & logistics; • Maritime traffic management and safety systems; • Transport modelling; • Environmental and social safeguards;

The indicative breakdown of the input from the experts should be given in the submitted proposal. The costs for backstopping and support staff, as needed, are considered to be included in the bidder's financial offer. During the Inception period, it is expected that the Consultant will mobilize adequate support staff.

In accordance with the CQS, at least three qualified firms shall be requested to provide information about their relevant experience and qualifications. From the firms that have submitted an EoI, the firm with the best qualifications and relevant experience will be selected and invited to submit technical and financial proposal for negotiations.

Office accommodation for each expert working on the Contract is to be provided by the Consultant. The Consultant shall ensure that experts are adequately supported and equipped. In particular, it shall ensure that there is sufficient administrative, secretarial and interpreting provision to enable experts to concentrate on their primary responsibilities.

No equipment is to be purchased on behalf of the neither Contracting Authority (MoT) nor beneficiaries as part of this service contract or transferred to the Contracting Authority or beneficiaries at the end of this Contract.

7. EXPECTED DELIVERABLES AND SCHEDULE OF THE ENGAGEMENT

It is expected that the Consultant will commence in the 1 QR of the Year 2026 and provide services **within 12 months**, or any period as may be subsequently agreed by the parties in writing.

Deliverables: The draft reports will be commented within two weeks of submittal, after which the Consultant will have a week to incorporate the comments into the subsequent edition of the Report. Following the comments received, the Consultant will send a revised version, with the operated changes highlighted, via the same contact, before formally submitting the final version to the MoT and MoMA for approval. A self-standing draft report will be prepared as per the below table. Approvals of the final reports by the MoT and MoMA will be issued within a week of submittal. The MoT is responsible for formally approving of reports in the form of Letter of acceptance, signed by the Project Manager, designated person from MoMA as final beneficiary and MoT Project Coordinator.

All deliverables intended for management and users must be written in English and Montenegrin. If requested by the Client, or if deemed necessary by the Consultant, executive summary, along with its accompanying recommendations, may be written. Each report shall consist of a narrative section and a financial section, as applicable. For administrative matters the consultant will communicate as necessary with TSU, responsible for carrying out the fiduciary aspects of the project implementation (Procurement, Contract and Financial Management).

All activities under this assignment are expected to be completed within 12 months from contract signing.

Table 2: *Deliverables and timeline*

No.	**Report title**	Due (from signing the contract)
1.	Inception Report	1 month
2.	Gap analysis, Diagnostic and Needs Assessment	4 months
3.	Strategic Vision and Implementation Roadmap	6 months
4.	Draft ITS Maritime Strategy for Montenegro 2027-2037, with Implementation Plan and Action Plan 2027-2028	10 months
5.	Strategic Environmental Assessment (SEA)	11 months
6.	Final ITS Maritime Strategy for Montenegro 2027-2037, with Implementation Plan and Action Plan 2027-2028	12 months

Deliverables should be submitted in Two (2) hard and one electronic (USB flash drive) copies; in Montenegrin and English language; Electronic copy should be delivered in MS Word (6 or later) for textual documentation.

Inception report: Consultant will prepare, no later than 1 month following commencement of the Contract the Inception Report. It shall be maximum of 20 pages and describe initial findings, report on the discussions with the competent authorities, risk and difficulties expected in addition to work program and staff travel, together with a detailed plan of works, task allocations, timelines and communication procedure. Content of the reports to be prepared within the Contract will be proposed in the Report.

Progress reports: During the work, the Consultant will prepare brief progress reports on the status of the activities, including progress, problems encountered, and proposed activities for the current month. These reports will be presented to the PIU by the 5th of each month.

Workshops: The Consultant will be responsible to organize workshops per requests of the relevant tasks. For each workshop, the Consultant shall prepare workshop program, distribute the reports early enough so the workshop participants can familiarize with them prior to the event. The report will be prepared following each workshop containing brief description of the discussion and decisions/agreements made and will be submitted to the MoT and MoMA within two weeks from the particular workshop.

Strategic Environmental Impact Assessment (SEA): The Consultant will prepare a SEA study and report which must be elaborated in compliance with the criteria specified in the SEA Act. The consultant will provide a synopsis (= a SEA report contents overview) for pre-approval prior to initiation of the actual drafting of the study/report.

Further, a review of the consultations conducted with competent authorities, organizations and an interested public must be drawn up and the results of the decision-making process as well as in providing information to the public shall be reported.

Final Report: At the end of the engagement, the Consultant will prepare the **Final Integrated Report**, with a short description of achievements, expert utilization, deliverables provided, problems encountered and recommendations for future actions to ensure results' sustainability. The report must consist of a narrative/technical and financial section.

After the completion of each Task, and prior formal approval, consultants shall organize a meeting/presentation with all relevant stakeholders with the aim of presenting all major findings from a draft report and obtaining potential further feedback. This will be done I cooperation with MoT and MoMA.

8. CONTRACT ADMINISTRATION

The Contract will be administered and managed by the MoT through the PIU and with the supervision of the Project Coordinator, in close cooperation with the MoMA. All tasks will be developed and implemented in close coordination with the MoT, MoMA, PIU and Project Coordinator. In addition, the technical focal points will be appointed by relevant stakeholder that should provide day-to-day support and facilitate technical consultative processes.

The PIU will assist the Consultant in gathering of all available information that can help in the execution of his assignment. This relates to information on the institutional organization, legal framework, maritime transport and statistical data, transport sector projects that are being prepared or are under implementation, as well as all other relevant information. The PIU will also provide the Consultant with copies of all studies that are available and that may be relevant to the execution of the Contract. Relevant documents that the MoT/MoMA has in electronic format shall also be made available to the Consultant.

9. TERMS OF PAYMENT

The Contract will be the Standard World Bank Lump Sum Contract. The payments for services will be based on the deliverables/reports approved by the Project Manager, designated person from MoMA and Project Coordinator, in the form of Letter of acceptance. The Contract costs will include remuneration and reimbursable costs referring to the assignment.

The structure and dynamics of payment is shown in the Table 3.

Table 3: Structure and dynamics of payment

No.	Milestone	Due (plan)	Percentage
1	Advance (if needed)		20%
2	Upon approved Strategic Vision and Implementation Roadmap	6 months	20%
3	After the MoT/MoMA approval of the ITS Maritime Strategy for Montenegro 2027-2037, with Implementation Plan and Action Plan 2027-2028 (final deliverable)	12 months	60%
Total			**100%**

10. CONFLICT OF INTEREST

A Consultant firm will be selected in accordance with the Consultant Qualification Based Selection (CQS) method set out in the World Bank's "Procurement Regulations for IPF Borrowers" Issued in September 2023. The attention of interested Consultants is drawn to Section III, paragraphs, 3.13 - 3.17 setting forth the World Bank's policy on conflict of interest.

In addition to the standard conflict of interest restrictions specified in the consulting Contract, all materials created under this Contract will remain the sole property of MoT. Re-use of the materials will require the formal, written approval of MoT.

The Consultant shall have no material interest in any of the outputs of this assignment. The terms of this agreement shall be made consistent with the relevant privacy laws of the Montenegro. The selected Consultant shall not be involved in any other related activities pertaining to this Project assignment, nor in any activities that may subsequently result from this Contract.