



TECHNICAL SPECIFICATIONS

Maintenance of the information system and mobile apps of Western Balkans
Road Safety Observatory¹

PS/SRV/ISM/016/2023

¹ <https://wbrso.transport-community.org/>
Beogradjanka building, Masarikova 5/8
11000 Belgrade, Serbia
T. +381 11 3131 799/800



Table of Contents

1. INTRODUCTION	3
2. BACKGROUND	3
2.1. INFORMATION ABOUT THE CONTRACTING AUTHORITY	3
2.2. INFORMATION ABOUT THE CONTEXT WHICH HAVE MADE NECESSARY THE PROCUREMENT OF THE SERVICES	4
2.3. OBJECTIVES (INFORMATION ABOUT THE EXPECTED BENEFITS)	4
2.4. OTHER PROGRAMS ASSOCIATED WITH THIS PROCUREMENT OF SERVICES	5
2.5. STAKEHOLDERS	5
3. DESCRIPTION OF THE SERVICES	5
3.1. DESCRIPTION OF THE PRESENT SITUATION	5
3.2. GENERAL OBJECTIVE TO WHICH THE SERVICES SHALL CONTRIBUTE	6
3.3. SPECIFIC OBJECTIVE TO WHICH THE SERVICES SHALL CONTRIBUTE	6
3.4. SERVICES -AND ACTIVITIES TO BE PERFORMED.....	6
3.5. EXPECTED RESULTS/OUTCOMES FOLLOWING THE PERFORMANCE OF THE SERVICES.....	6
3.6. DUTIES AND RESPONSIBILITIES OF THE PARTIES.....	6
4. ASSUMPTIONS AND RISKS	6
5. APPROACH AND METHODOLOGY	7
6. WORK PLAN FOR ACTIVITIES/SERVICES	7
7. PLACE AND DURATION OF ACTIVITIES/SERVICES	7
7.1. PLACE AND DURATION OF ACTIVITIES/SERVICES.....	7
7.2. COMENCEMENT DATE AND COMPLETION DATE FOR THE EXECUTION OF THE SERVICES OR THE TIME/PERIOD FOR COMPLETION OF THE SERVICES	7
8. NECESSARY RESOURCES/EXPERTISE TO CARRY OUT THE ACTIVITIES IN THE CONTRACT AND ACHIEVE THE RESULTS	7
8.1. NUMBER OF EXPERTS PER EXPERIENCE LEVEL/ CATEGORY	7
9. CONTRACT MANAGEMENT AND REPORTING	9
9.1. <i>MANAGEMENT OF THE RELATIONSHIP BETWEEN THE CONTRACTOR AND TCT SECRETARIAT</i>	9
9.2. REPORTS/DOCUMENTS TO BE ISSUED BYT HE CONTRACTOR.....	9

1. Introduction

This document includes all the requirements that each Tenderer will prepare its tender (Technical Proposal and Financial Proposal) for the performance of the services that are the subject of the Contract resulting from this procedure.

The Contracting Authority is the Transport Community through the Permanent Secretariat of the Transport Community.

The permanent Secretariat of Transport Community is set up under the Transport Community Treaty (“Treaty”). The Transport Community is an international organisation in the field of mobility and transport, consisting of 33 participants – the EU and the Western Balkans regional partners, established by the Treaty establishing the Transport Community as well as the three observing participants (Georgia, Republic of Moldova and Ukraine).

The Permanent Secretariat of the Transport Community provides administrative support to the other institutions of the Transport Community, acts as a Transport Observatory to monitor the performance of the indicative TEN-T extension of the comprehensive and core networks to the Western Balkans and supports the implementation of the Western Balkans Connectivity Agenda aiming to improve links within the Western Balkans as well as between the region and the European Union. It also reviews and monitors the implementation of the obligations under the Treaty.

Address: Beogradjanka building, Masarikova 5/8, 11000, Belgrade, Serbia

Contact: procurement@transport-community.org

Website: <https://www.transport-community.org/>

2. Background

2.1. Information about the Contracting Authority

The Transport Community is an international organisation in the field of mobility and transport. It has 36 participants – the European Union Member States represented by the European Commission, the South East European Parties (the Republic of Albania, Bosnia and Herzegovina, Kosovo*, Montenegro, the Republic of North Macedonia, and the Republic of Serbia - hereinafter referred at collectively as “regional partners”) and the three observing participants (Georgia, Republic of Moldova and Ukraine). The Transport Community is working on integrating Western Balkans’ transport markets into the EU by assisting the regional partners in adopting and implementing the EU legislation in the transport field and supporting projects connecting the region and with the EU.

The organisation was founded by the Treaty² establishing the Transport Community signed on 9th of October 2017 by all partners (Council Decision (EU) 2019/392).

* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence

² <https://www.transport-community.org/wp-content/uploads/2022/10/treaty-en.pdf>

The aim of the Treaty therefore is the creation of a Transport Community in the field of road, rail, inland waterway, and maritime transport as well as the development of the transport network between the European Union and the Western Balkan Parties.

2.2. Information about the context which has made necessary the procurement of the services

Upon the establishment under the provisions of the Treaty of the Technical Committee on Road Safety, a short-term action plan was drafted. Western Balkans Road Safety Observatory is one of the measures in the Road Safety Action Plan, named 'Establishing a Tool for monitoring road safety performance under the Transport Community umbrella'. All the measures have been presented and discussed with the Regional Partners, as well as endorsed at the higher level.

Evidence-based approaches lie at the heart of the most successful road safety policies. Improved knowledge of road safety performance is a crucial element for the design of road safety strategies and measuring the progress towards reducing road casualties. The ultimate goal in establishing WBRSO is to offer a regional platform for the exchange of information and strategies, action plans and initiatives in road safety at a regional level and the collection of timely, objective and reliable information that effectively contributes to achieving a reduction in road casualties. It will build knowledge on the improvement of the national crash data systems and harmonization of the data with CADAS protocol. One of the main goals of the WBRSO is to ensure road safety data in the Regional Participants reaches enough quality and breadth of coverage to facilitate a smooth transition into the EU's CARE database.

WBRSO Information System and mobile apps for IOS, Android and Huawei were developed in the 2021 year. The system and mobile app are up and running and available online. That said, the Transport Community need to maintain them and ensure that the system is accessible and offers the information required from its users.

2.3. Objectives (Information about the expected benefits)

The overall objective of the project of which this contract will be a part is:

- to contribute to the improvement of the road safety data in the region and their harmonisation.
- to define the gaps and provide evidence-based data for policymakers in order to reduce the number of serious injuries and road traffic deaths.

The specific objectives of this contract are as follows:

- Maintain the central database in the TCT Secretariat and its information system for monitoring the road safety performance indicators
- Produce additional (if needed) road safety analyses depending on the needs of the users
- Ensure data integrity and improve on-time delivery performance and reporting
- Ensure system security of the information system and mobile apps
- Security Updates (including security patches) & Code Maintenance (Code updates to ensure compatibility with new versions of iOS or Android, and any connected APIs)

- Performance monitoring (For your marketing department, performance monitoring also keeps track of how many people are using your app, new downloads by day, actions taken within the app, and more.)

2.4. Other programs associated with this procurement of services

N/A

2.5. Stakeholders

Implementation of these services will require regular communication and meetings of the Contractor and Transport Community Secretariat based on the needs of the system in order to ensure the efficiency of the system (WBRSO web application, WBRSO mobile apps and central database based on TCT Secretariat premises).

3. Description of the services

Maintenance of the WBRSO Information system (WBRSO web application and mobile apps) shall offer regular monitoring of the performance of the system including regular updates, patches and bug fixes. Also, an improvement of the current graphs and minor additional queries shall be part of the implementation of these services.

3.1. Description of the present situation

WBRSO Information System and mobile apps for IOS, Android and Huawei will be developed in the 2022 year. The system was finalised by 4 December 2022 and has passed under a year of maintenance that ends on 4 December 2023. During the maintenance system was tested by the users allowing them to enter the data online and receive the results presented in reports, graphs and tables. Regular updates are done during this period, and the transfer of the database to the TCT Secretariat server, ensuring in the same time the security. In addition, potential bugs identified during the online data entry or retrieving the results are reported and fixed promptly without creating inconvenience in the work of the users.

The platform is set as a three-tier architecture. The presentation tier uses Angular 14 for the web and React native for mobile applications. The application tier uses Java Spring Boot framework while the Database tier uses Postgres SQL 12.

The application tier communicates with the presentation tier through REST API using JSON and Security is handled with JWT tokens.

That said, the Transport Community need to maintain the WBRSO Information System including its mobile apps on a regular basis and ensure that the system is accessible and offers the information required from its users.

3.2. The general objective to which the services shall contribute

The overall objective of the project of which this contract will be a part is: to contribute to the improvement of the road safety data in the region and their harmonisation. To define the gaps and provide evidence-based data for policymakers in order to reduce the number of serious injuries and road traffic deaths.

3.3. Specific objective to which the services shall contribute

Maintenance of the WBRSO web application, database and mobile apps for iOS, Android and Huawei.

3.4. Services -and activities to be performed

The specific objectives of this contract are as follows:

- Maintain the central database in the TCT Secretariat and its information system for monitoring the road safety performance indicators
- and produce a set of additional road safety analyses depending on the needs of the users.
- Ensure data integrity and improve on-time delivery performance and reporting
- Ensure system security of the database, information system (web application) and mobile apps
- Security Updates (including Security patches) & Code Maintenance (Code updates to ensure compatibility with new versions of iOS or Android, and any connected APIs)

3.5. Expected results/outcomes following the performance of the services

All systems are in place, up and running and accessible to their users at any time ensuring the system's security. The contractor shall update regularly the WBRSO and list the tasks performed for the maintenance shall be submitted to the contracting authority. Additional reports/queries that might be created during this period on demand of the maintenance work are part of the outcomes as well.

3.6. Duties and responsibilities of the parties

The Contractor may be fully responsible for:

- ensuring resource planning in relation to the estimated schedule for the performance of the contract as presented in this document;
- ensuring the validity of all authorisations and certificates which are for the performance of the services;
- performing the services - and presenting the results - in accordance with the requirements of the Technical Specifications;
- collaborating with the assigned staff of the Contracting Authority.

The Contracting Authority may be responsible for:

- making available to the Contractor all available information for obtaining the expected results, such as input data, reports, and specific situations;
- ensuring all the resources that are in his charge for the smooth running of the Contract.

4. Assumptions and risks

The Contracting Authority will facilitate access to its servers and ensure that they have the optimal set-up for accommodating the WBRSO database and its web application. The Contractor will be responsible for maintaining the WBRSO web application and its mobile apps.

5. Approach and methodology

The Contractor will define an appropriate methodology, describing in detail the activities and subactivities (if any) that will be performed according to these Terms of Specifications to achieve the expected results. Additional activities may also be suggested, and their need justified for the successful implementation of the assignment.

A Gantt chart for presenting the activities would be preferable.

The Contractor has to apply a system for the management of the risks within this assignment. This risk management process of the Contractor has to include, as a minimum, a risk analysis, identification of possible risks and the necessary actions to avoid, transfer, mitigate or accept them. The methodology shall be included in the tender.

6. Work plan for activities/services

Regular maintenance activities undertaken by the Contractor shall be presented and submitted in writing on a three-month basis to the Contracting Authority.

A mid-term report shall be submitted by the end of the first year of the maintenance and the Final report shall be submitted by the end of the contract.

7. Place and duration of activities/services

7.1. Place and duration of activities/services

The Contractor shall perform activities remotely. Access to the system will be given by the Contracting Authority.

7.2. Commencement date and completion date for the execution of the services or the Time/Period for Completion of the Services

The time period for Completion of the Services shall be 2 years (24 months).

8. Necessary resources/expertise to carry out the activities in the Contract and achieve the results

8.1. Number of experts per experience level/ category

For carrying out the activities under the Contract, the Contracting Authority anticipates that certain fields of expertise or the following categories of professions (as applicable):

Key Expert	Qualifications and Skills	Professional Experience	Project related experience
Team Leader	Will lead the implementation of all the components and retain the leadership and capacity of overall coordination, communication as	- 7 years of professional experience in the field of road safety	Participation in a similar position in at least two similar projects with this ToR

	<p>well and quality control of the project's outputs and outcomes.</p> <ul style="list-style-type: none"> - University graduate from Transport/ Statistics/ Public Health or 5 years of general experience above the minimum requirement set-up in the professional experience; - Proficient in English, oral and written. - Proven skills in project management. 	<ul style="list-style-type: none"> - 3 years of working experience in Road Safety Data for Observatories; 	preferably covering road safety
Web Application Software developer	<p>Responsible for performing a wide variety of production tasks for the web application system and data management.</p> <p>University graduate in Computer Science/Electronics/ or equivalent general professional experience of 7 years in the field of web application software development.</p> <p>Proficient in English, oral and written.</p>	7 years of professional experience in the field of software web application development and/or software engineering.	Working experience as a software developer in two (2) projects in the web application database, from which at least one (1) to be in the transport field.
Mobile App developer	<p>Responsible for performing a wide variety of production tasks for mobile applications and data management.</p> <p>University graduate in Computer Science/Electronics/ or equivalent general professional experience of 5 years in the field of application software development.</p> <p>Proficient in English, oral and written.</p>	5 years of professional experience in the field of mobile app application development.	Working experience as a mobile app developer in one similar project (i.e. development or maintenance of the mobile app)

The selection of experts shall be in line with the criteria described in 3.1 Description of the present situation, where the state of play of the system architecture and language is described.

The Contractor is responsible for selecting, hiring and/or using any other experts whose inputs might prove necessary for the proper delivery of services without seeking the Contracting Authority's prior approval in this regard. The expertise of a Product Solution – IT Services shall be available on a demand basis depending on the needs of the system for requiring a solution. The maintenance of the WBRSO Mobile apps for iOS, Android and Huawei is part of the tasks of this service and providing experts (staff) is crucial. In particular, quality assurance and system security topics are considered of utmost

importance for the proper delivery of the services and dedicated experts might be needed in this regard. ISO 27001 international standard is required to ensure information security.

The costs for other experts, backstopping and support staff, as needed, are considered to be included in the tenderer's Financial Offer.

9. Contract Management and Reporting

All the services and deliverables to be produced under the contract shall be subject to acceptance by the Contracting Authority. The following acceptance procedures shall apply.

Contracting Authority's feedback shall be submitted within 20 calendar days upon receipt of the draft version of a deliverable and may take one of the following forms:

- a. Unconditioned approval;
- b. Approval with comments;
- c. Request for revision (in case the deliverable needs quality and/or content improvement);
- d. Rejection (in case the minimum contractual requirements on the deliverable's content and quality are not met).

In cases listed at points b, c and d above Contracting Authority's decision shall be accompanied by a list of comments that the Contractor will have to consider when preparing a revised version of the deliverable.

The Contractor shall send the revised version as soon as practically possible, and the Contracting Authority shall provide its feedback within 14 calendar days from such submission.

Notwithstanding the Contracting Authority's entitlement to reject or request a revision of a deliverable until its feedback is properly addressed, failure of the Contractor to have its reports approved within 60 calendar days from the initial submission would trigger delay damages applicable starting from the first day following such deadline.

The Contracting Authority's failure to send feedback within the time limits set under this article would result in the reports being deemed approved starting from the day following the date such feedback was due.

9.1. Management of the relationship between the Contractor and the TCT Secretariat

The Contracting Authority and the Contractor will have regular communication based on the needs of the system and its users via email, video calls or meetings in person if needed.

9.2. Reports/documents to be issued by the Contractor

Reports will include the work carried out during the reporting period. The reports issued by the contractor will be the following:

- A three-month report will be issued on a regular basis. The reports will include all tasks carried out during that period.

- A mid-term report will be issued by the end of the first year contract including all tasks carried out during that period.
- A final report will be issued by the end of the second year (end of contract) including all tasks carried out for the whole contract period.