

Technical Specifications Services:

Preparation of project documentation for increasing the safety on the railway level crossings in the Western Balkans

PS/SRV/LCS/005/2023

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1. Introduction

This document includes all the requirements on the basis of which 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 by the Permanent Secretariat of the Transport Community.

Permanent Secretariat of Transport Community - is one of the institutions 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 six Western Balkans regional partners, established by the Treaty establishing the Transport Community.

Permanent Secretariat of 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 Six (WB6) 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

Internet addresses:

Main address: <https://www.transport-community.org/>

2. Background

2.1. Information about the Contracting Authority

Under the Treaty establishing the Transport Community, the South East European Parties (namely the Republic of Albania, Bosnia and Herzegovina, North Macedonia, Kosovo^{*}, Montenegro and the Republic of Serbia hereinafter referred as "*Regional Parties*") have committed to ensure the development of the indicative extension of the TEN-T comprehensive and core networks to the Western Balkans, in view of their commitment to progressively integrate their transport markets with the European Union's, based on the relevant *acquis*. Part of this joint effort, the Permanent Secretariat of the Transport Community (further on "TCT") has been tasked to support the parties on the path towards achieving their common goals.

In order to assist the Regional Parties, it was set up a Rail Technical Committee (further on "RTC") to cover rail transport related aspects falling under the scope of the Transport Community Treaty (TCT). To serve this purpose, the RTC with the support of the Permanent Secretariat of the Transport Community during 2020 elaborated a coherent set of concrete actions to be implemented by the Regional Parties in a coordinated and timely manner. It aimed in particular at regional market opening,

^{*} 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.

passenger rights, level crossing safety improvement, governance, interoperability, improving the rail border – crossing / common crossing operations and modernisation of the rail network.

Transport Community Treaty signed by Regional Parties, includes the following obligations, as part of its Annex 1 ([https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22017A1027\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22017A1027(01)&from=EN)), related to Rail Transport and part of the Rail Action Plan (<https://www.transport-community.org/wp-content/uploads/2020/11/Rail-Action-Plan.pdf>) as per the given topics:

- Market access
- Train driver licensing
- Interoperability
- European Union Agency for Railways
- Railway safety
- Inland transport of dangerous goods
- Transportable pressure equipment
- Social field - working time / hours
- Passenger rights
- Procurement procedures
- Public services

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

The rail safety is recognised as the most important parameter in the rail traffic. One of the most sensitive issues are level crossings (LCs), namely the points of intersection between roads and rails. These are places where collision between two inland modes of transport exists. From 2014 to 2021, a total no. of 750 accidents in LCs were recorded, resulting in 116 fatalities and 347 injures persons.

Consequently, within the Technical Committee on Railway established under the Transport Community Treaty, the Regional Partners agreed that improvement of the safety on the level crossings should be addressed as a matter of priority in region. Based on that, TCT together with JASPERS prepared Level Crossings Safety Improvement Project Report for the Western Balkan where a prioritisation of the level crossings to be further upgraded was done. This report is given as Annex 13 of this Tender Documents.

In parallel with the infrastructure improvement efforts, TCT also performed the public awareness campaign “It’s a Thin Line” which targeted a wide Western Balkans audience via dedicated events, printed materials, social media, TV and other communication channels to increase public awareness about dangers of rail/road intersections. A uniform slogan “It’s a Thin Line” was translated into languages of Western Balkans regional partners. The main message of the campaign was strong and emotional, showing how a small carelessness can have serious consequences.

Therefore, this Technical Assistance is aiming at supporting the Regional Parties in their efforts to create all necessary technical and procurement documents ready for procurement of upgrade of the level of safety on the level crossings.

2.3. Objectives (Information about the expected benefits)

Prepared technical and procurement documentation will lead to investments, which will contribute to improvement of the safety at the LCs in Western Balkan region.

2.4. Stakeholders

Information about the stakeholders and their implication in the contract implementation:

- Transport Community Treaty Permanent Secretariat (TCT Secretariat) – Contracting Authority;
- Joint Assistance to Support Projects in European Regions (JASPERS) – Assisting TCT Secretariat managing the Procurement;
- Railway Infrastructure Managers from South East European Parties – Final Beneficiary.

3. Description of the services

3.1. General objective to which the services shall contribute

The general objective of this assignment is to contribute towards the fulfilment of the obligations derived from the Transport Community Treaty signed by Regional Parties, related to Annex 1 of the Treaty, implementation of the Rail Action Plan and establishment of competitive, reliable and safe transport system with improving and modernising the signalling on level crossing of railway with road infrastructure.

3.2. Specific objective to which the services shall contribute

The objective of this assignment is to hire a contractor to prepare technical and procurement documentation to improve the safety of railway level crossings in the Western Balkans. This includes the administrative and technical aspects of the tender documents for the improvement of signaling and control-command systems. The contractor will also be responsible for defining the technical requirements (conditions) of the supply and installation of equipment and related works.

3.3. Services and activities to be performed

The contractor is requested to perform the following activities/tasks:

Task 1: Inception report and Development of an appropriate methodology for grouping the level crossings based on their “needs index” (in close cooperation with TCT, Regional Partners and JASPERS).

For this task, the contractor shall use the Report on Level Crossings Safety Improvement prepared by TCT in cooperation with the Regional Partners and JASPERS. From the existing information and up-dates to be provided by the Regional Partners, appropriate methodology for identification of standard groups for preparation of the relevant technical specifications shall be prepared. The leading elements for identification of those groups shall be technical characteristics of the needed SS equipment and its integration into the safety-signalling system (but also the type (category) and characteristics of the crossing roads should be considered to the possible extend – this shall be re-checked within the scope of Task 2). In

addition, based on the actual information to be provided by the Regional Partners (and other stakeholders) about similar on-going initiatives (and related investment projects on the railway lines), the Contractor shall adjust the priority list of the level crossings for safety improvement. The updates in the prioritisation list shall also respect the relevance of the lines (located on core, comprehensive and other lines). The crossings already equipped but if the equipment is not operational or has frequent failures in operation shall also be adequately considered.

Task 2: Data collection and site visit for determining the current situation of the level crossings.

The objective of this task is to collect all relevant information about the actual condition of the prioritised level crossings for installation of new equipment. TCT has provisionally estimated that at least 135 level crossings (Annex 13) (deviation of approx. $\pm 10\%$ is possible, subject to clarifications and agreement during performance of the services) shall be visited, inspected and considered in the tender documents (including relevant photos of each crossing – the photos to be enclosed with the “Technical Parts” for each specific crossing to be included in the tender documents).

The provisional estimate per the Regional Partners is as follows (subject to a final agreement with TCT, Regional Partners and JASPERS) during performance of Task 1):

- (a) Albania: min 5 level crossings
- (b) Bosnia and Hercegovina: min 25 level crossings (12 in Federation BiH and 13 in Republika Srpska)
- (c) Kosovo: min 20 level crossings
- (d) Montenegro: min 5 level crossings
- (e) North Macedonia: min 20 level crossings
- (f) Serbia: min 60 level crossings

During site visits, in addition to the actual condition, particular attention shall be paid to collection of the relevant information for preparation of the standardised technical specifications per the pre-identified groups as well as the needed civil works to be reflected in standardised (“matrix based”) Bills of Quantities (BoQ). For civil works it is expected that the standardised BoQ will consider two groups of the works: one which refers to standardised crossing roads, and one which refers to comprehensive various civil works which could be required. Based on that, depending on each specific case, it will be possible to select the most appropriate approach for preparation of BoQ for each level crossing. The results of the activities to be refined during the activities on Tasks 3 and 4.

A summary report on the site inspection to be submitted (e.g. overview of the visited/inspected crossings (with supporting photos), main findings, potential impact on the proposals of Task 1 and suggestions for considerations for Task 3). The exact content to be proposed by the contractor and agreed with TCT, Regional Partners and JASPERS.

Task 3: Assessment of the current situation of the level crossings.

In order to identify their final risk level and to make the final grouping of the level crossings based on their technical needs for improvement, including analysis of the gathered data and information following the established methodology (in close cooperation with TCT, Regional Partners and JASPERS). All that with reference to the initial results of Tasks 1 and 2.

A summary report presenting the relevant information to be prepared and submitted. The exact content to be proposed by the contractor and agreed with TCT, Regional Partners and JASPERS.

Task 4: Preparation of “matrix based” technical specification Indeed, the technical part of the tender documents for design-build is usually called employer's requirements. Technical specification is rather used for works designed by the employer. However, what we want to achieve here seems closer to standardised equipment specifications to me. They will be used under a design-build approach, as the contractor will have to further adapt them to each location etc. Kire to confirm

This “matrix based” technical specification shall include the equipment installation drawings and BoQ (“matrix based”) for supply and installation of signalling equipment on the level crossings and should be developed as a package for each Regional Partner (considering the indicative number of level crossings as stated in Task 2 above per regional partner). All that with reference to the results of Tasks 1 to 3. The main outcomes are “Technical Parts” of tender documents.

It is noted, that the “matrix based” documentation (technical specifications, drawings and BoQ) shall be prepared in a way to enable the Regional Partners to use them (after checking the existing situation for concerned level crossings) in a simple and pragmatic way for future implementation of activities for safety improvement at the level crossings.

Within the scope of this Task, the contractor shall prepare (as separate documents) the “designer’s cost estimates” for the actual level crossings to be included into the “Technical Parts” of tender documents as well as “designer’s unit costs estimates” for all activities included in “matrix-based” BoQ.

The contractor should be well aware that the formal and content requirements for the “Technical Parts” might vary across the region and certain review/approval procedures might be applicable. The time and any potential additional input needed for undergoing such procedures is considered included in the Contract.

Technical part of the documents for each of the regional partners should be fully aligned with the applicable legislation of the regional partner concerned, as the final approval of the technical documents shall be subject to prior approval of the relevant railway authorities of the regional partner concerned.

Task 5: Preparation of Procurement Documents

Deliverable under this task includes “Administrative Parts” of tender/procurement documents for increasing the safety on the railway level crossings in the Western Balkans for each Regional Partner separately based on the World Bank and/or EIB/EBRD Procurement and/or EU PRAG templates. The exact templates to be used as well as potential grouping into lots, based on the technical similarities (see Task 1) and/or other criteria including (but not limited to) geographical location, source of funding, etc. will be clarified for each Regional Partner separately, at the beginning of the assignment with potential changes during performance of the activities). An overall Procurement Plan shall be prepared and agreed beforehand with TCT.

In addition to the “Administrative Parts” to be ready for immediate procurement/financing (to be compiled together with the “Technical Parts” of tender documents for each Regional Partner separately), the contractor shall prepare a Guidance Note for the Regional Partners for future use of the prepared Administrative Parts. The Guidance Note shall include the

template documents with clear instructions how certain (“changeable”) parts of the documents shall be filled-in depending on scopes of future projects.

Within the scope of this task, the contractor shall suggest and clarify (with all pros and cons) the most appropriate type of contract (e.g. supply, or design&build works) as well as the procedure (e.g. open, restricted). Only after a final agreement about has been reached (involving TCT, Regional Partners and JASPERS), the Administrative Parts of tender documents shall be developed.

All actions in these tasks shall be in accordance with the respective legal framework of the Regional Partner having in mind the applicable EU Acquis.

For the duly performance of the above, apart from the necessary deskwork the Contractor is required to undertake missions to each Regional Party and to investigate the situation for each identified group of level crossings (the provisional number of level crossings to be visited / inspected is set in Task 2).

The delivery under these tasks shall include the above and shall be reflected in Reports of Task no. 1 to 5 as described at point 3.4 below.

All deliverables shall be prepared in English and shall be handed over in electronic editable format.

Deadlines for delivery refer at the draft version of the reports. In principle, the deadlines set out below cannot be extended. The Contractor is deemed solely responsible for delays occasioned by subcontractors or other third parties (except for rare cases of *force majeure*). Adequate resources and appropriate organisation of the work including management of potential delays should be put in place in order to observe the timetable.

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

The main deliverable of the Contract shall be complete sets of procurement documents for the priority LCs in western Balkans region.

More specifically, the following deliverables shall be produced by the Contractor under the Contract:

No.	Deliverable	Deadline for submission
1.	Output of Task 1 Inception Report and Methodology for grouping the level crossings based on their “needs index” (in close cooperation with TCT, Regional Partners and JASPERS).	Commencement plus 6 weeks
2.	Output of Task 2 Summary report	Commencement plus 10 weeks
3.	Output of Task 3 Summary report	Commencement plus 14 weeks

4.	<p>Outputs of Task 4</p> <p>Matrix-based technical specifications, drawings, BoQ;</p> <p>Cost estimates (for actual level crossings per Regional Partners);</p> <p>Matrix- based unit prices for all activities;</p> <p>Technical parts of tender documents for each Regional Partner (to be compiled with Administrative Parts).</p>	Commencement plus 20 weeks
5.	<p>Outputs of Task 5</p> <p>Administrative Parts of tender documents for each Regional Partner for the actual scope of level crossings (compiled together with relevant technical parts);</p> <p>Guidance Note and standardised templates for future use</p>	Commencement plus 20 weeks
6.	<p>Final Report</p> <p>Shall incorporate a summary of all tasks and actions carried under the Contract as well as the final version of all the deliverables.</p>	Commencement plus 24 weeks.

3.5. Duties and responsibilities of the parties

The Contractor shall be fully responsible for:

- ensuring resource planning in relation to the estimated schedule for the performance of the contract and presented in this document;
- fulfilling its obligations, in compliance with the best practices in the field, the relevant legal and contractual provisions, as well as with full understanding of the complexity related to the successful execution of the Contract, so as to ensure the fulfilment of the established objectives, ensuring that the activities performed and the obtained results are at the required quality parameters;
- ensuring the validity of all authorisations and certificates which might be needed for the performance of the services;
- ensuring a certain degree of flexibility in the performance of services according to the objective needs of the Contracting Authority at any time during the course of the contract. This might include slight adaptations of the schedule of performing the services, to bring it in line with challenges on the ground.
- 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 shall be responsible for:

- facilitating contacts with relevant stakeholders in all regional partners;

- taking over the deliverables and paying the contract price at the time and in the manner prescribed in the contract.

4. Assumptions and risks

Applicable regulations and technical norms might vary from one Regional partner to the other and could include formal design review/approval/verification by certified individuals or state bodies, or specific authorisations for designing railway interventions schemes. The Consultant is deemed to have acknowledge all the relevant constraints in this regard and include in its bid all the costs for addressing them accordingly (including but not limited to hiring specialised local personnel and translating parts of the technical documents in the local language, as might be the case).

5. Approach and methodology

The Contractor will have to define a methodology, describing in detail the activities and sub-activities (if any) that will be performed according to these ToR to achieve the expected results. Additional activities may also be suggested, and their need justified for the successful implementation of the assignment.

The methodology should indicate the intended results in the realisation of the respective (sub)activity by linking it to the specifics of the activity itself and the proposed way of its implementation and to clearly describe the chronological, technological, and logical interconnection of the processes in the implementation of the individual (sub)activities.

The methodology should include a detailed schedule with specific deadlines for the implementation of specific activities in the individual stages and the assignment as a whole. The proposed timetable should comply with the overall deadlines under the project and shall be presented in the form of a Gantt Chart.

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 and further refined at Inception stage.

6. Work plan for activities/services

The main relevant milestones for the contract implementations are defined in sections 3.3 and 3.4 above. In due observance of the deadlines therein provided, the Contractor will prepare the implementing schedule as part of its methodology (see point 5 above).

7. Place and duration of activities/services

7.1. Place and duration of activities/services

Contracting Authority's headquarters is located in Belgrade, Republic of Serbia. While the Contractor shall not be asked to open a branch office or otherwise register in Serbia for the scope of performing the contract, physical presence of its team in Belgrade shall be required from time to time.

Performance of the tasks described under point 3 requires physical presence of the Contractor's team in all 6 TCT Regional Participants.

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

The contract shall last 24 weeks from the commencement date.

8. Staff

The team delivering the services should include, as a minimum, the profiles hereunder provided.

The team should provide experts who have qualification and legal capacity to perform in a timely manner all the obligations of the Contractor described in this Terms of Reference throughout the term of the contract.

Experts who have a crucial role in implementing the contract are referred to as key experts. The profiles of the key experts for this contract including minimum requirements with regard to qualification and skills, specific professional and project related experience are provided below.

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):

8.1. Main /key experts' profile

Role of the expert: Team Leader / Rail Signaling Expert	
Educational and/or professional qualification	University graduate in a field of electrical engineering / transport/ civil engineering/ economics or equivalent Proficient English user.
General professional experience	15 years of general professional experience in transport sector acquired after graduation.
Specific professional experience	At least 10 years of experience in the rail transport sector. At least 5 years' professional experience in rail Project Preparation.
Project related experience	Participation in at least 2 Projects related to Design, Construction and Reconstruction of railway lines where LCs are included in the SEE Region or the EU.
Responsibilities under the Contract	Team Leader will lead the implementation of all the components and retain the leadership and capacity of overall coordination, communication as well as the quality control of the project's outputs and outcomes. The team leader will be part of and will manage the team of experts, organises all aspects of the technical project work, ensure good communication with the project partners and Contracting Authority.

8.2. Non-key experts (secondary experts)

The Contractor is responsible to select, hire and/or use local experts in each WB6 partner, especially for drafting technical specification, data collection and other activities, as well as other experts (particularly Procurement Expert(s)) whose inputs might prove necessary for the proper delivery of services without seeking Contracting Authority's prior approval in this regard. In particular, the Contractor must be aware that extensive knowledge of the overall transport sector with specific knowledge of the relevant railway institutions, entities and railway operations will be needed for this assignment and that the profile of the expertise to be used shall correspond to such needs.

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 approval of services

9.1. Services approval

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;

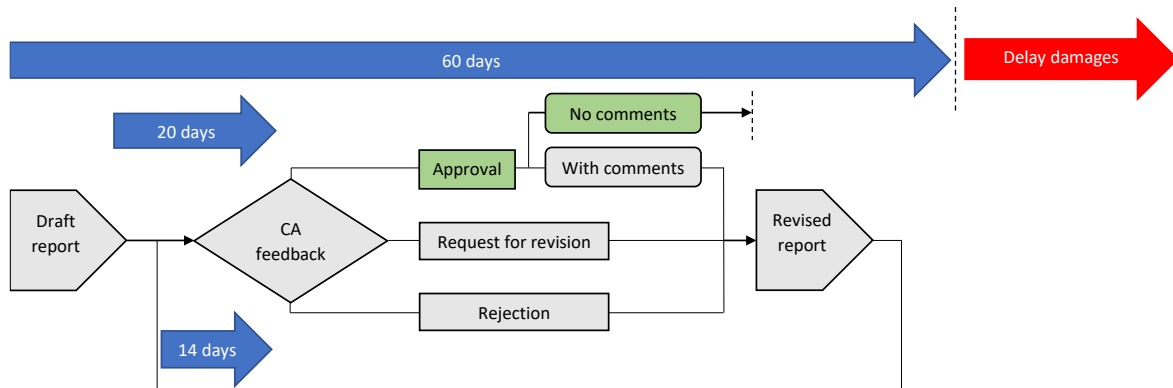
- b. Approval with comments;
- c. Request for revision (in case the deliverable needs quality and/or content improvement);
- d. Rejection (in case the minimum contractual requirements on the deliverable's content and quality are not met).

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 Contracting Authority's entitlement to reject or request revision of a deliverable until its feedback 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.

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.

The typical sequence of report approval events is presented graphically below:



9.2. Meetings and phone conferences

For facilitating the performance by the Contractor of this activity, the TCT Secretariat shall provide the Contractor with the full list of members of the Rail Technical Committee who will be regarded as national focal points for the implementation of this TA in their respective administrations.

TCT Secretariat will seek to facilitate the communication between the Contractor and beneficiaries whenever needed, but it is the ultimate responsibility of the Contractor to obtain a sufficient flow of information from the national focal points to be able to complete each of the tasks of this contract.

The Contractor shall be in regular communication with the Rail Coordinator from the TCT Secretariat for the entire duration of the contract.

The contractor is expected to participate in the following meetings and phone conferences:

- A kick-off meeting, virtual or in TCT Premises in Belgrade, at the latest 7 calendar days following the entry into force of the contract.
- Conference calls between the Contractor, TCT Secretariat and national focal points – shall be organised to discuss key deliverables, and any other important issues on request of any of the parties, Contractor or TCT Secretariat.
- Progress calls between the Contractor and TCT Secretariat shall be organised once per month. The contractor will be notified in case a summary record is deemed necessary for any of those meetings or conference calls. If requested, the summary record should be drafted by the contractor within 3 working days following the meeting and it needs to be agreed among the participants.