

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

Contract title: Supply of Equipment Necessary for Improving of Conformity Assessment (CA) Services in the Republic of Serbia - RE-LAUNCH

1/5

LOT 4 (former lot 12): EQUIPMENT FOR TRAFFIC SPEED CONTROL INSTRUMENTS TESTING

Publication reference: EuropeAid/135592/IH/SUP/RS

Columns 1-2 should be completed by the Contracting Authority

Columns 3-4 should be completed by the tenderer

Column 5 is reserved for the evaluation committee

Annex III - the Contractor's technical offer

The tenderers are requested to complete the template on the next pages:

- Column 2 is completed by the Contracting Authority shows the required specifications (not to be modified by the tenderer);
- Column 3 is to be filled in by the tenderer and must detail what is offered (for example the words “compliant” or “yes” are not sufficient);
- Column 4 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation.

The eventual documentation supplied should clearly indicate (highlight, mark) the models offered and the options included, if any, so that the evaluators can see the exact configuration. Offers that do not permit to identify precisely the models and the specifications may be rejected by the evaluation committee.

The offer must be clear enough to allow the evaluators to make an easy comparison between the requested specifications and the offered specifications.

Unless otherwise specified, the requirements in these Technical Specifications are presented as a minimum standard which the offered goods must meet.

Unless otherwise stated, the following requirements shall also apply:

A - Documentation

Upon delivery of the goods a technical documentation for equipment (such as instruction manual for the use, maintenance, calibration, etc.), in English shall be provided, unless otherwise stipulated by Serbian technical regulations. If available, an additional manual in the Serbian language would be welcomed.

B - Compliance to safety rules and regulations

When submitting a tender, the tenderer must state expressly that all of the proposed equipment meet the safety requirements of the applicable rules and regulations in force in the Republic of Serbia. Upon delivery, the tendered equipment shall include proof of compliance.

C - Certificate of calibration

The Contractor shall deliver the equipment with the certificates of calibration for the equipment contributing to the uncertainty of the final test result for which they are intended to be used. The certificates of calibration should be issued by an accredited calibration laboratory, unless otherwise specified.

D - Installation

The Contractor shall install the equipment in the premises of the user and demonstrate after the installation of the equipment that it is capable of performing the functions required of it.

E - Training

When applicable, the Contractor shall provide on-the-job training to ensure the correct operation and maintenance of the equipment, at the time of installation, with additional training, to be provided by the Contractor within the following 6-month period. Tenderer shall submit training programme. The length of the training shall be adequate to the technical characteristics and maintenance requirements of the equipment supplied and shall allow the final user to properly handle the instrument(s). The training material must be provided on minimum 1 (one) electronic media and in minimum 1 (one) hard copy per trainee. The training should be in Serbian language (or interpretation must be provided by the supplier). The performance of the equipment against the required technical specifications shall be verified as part of the training.

F - Warranty

The Contractor shall provide a warranty for the equipment supplied in line with the Special Conditions. This warranty shall remain valid for one year after provisional acceptance.

G - Commercial Warranty

Commercial warranty must remain valid for two years (after the end of one year standard warranty) in accordance with the conditions laid down in Article 32 of the Special and General Conditions. Tenderer must provide a detailed description of the organisation of the proposed service.

LOT 4: EQUIPMENT FOR TRAFFIC SPEED CONTROL INSTRUMENTS TESTING

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
1	<p>LASER SPEED MEASUREMENT SIMULATOR AND PROGRAMMABLE PULSEDELAY GENERATOR</p> <p>QUANTITY: 1</p>			
	Manufacturers name:			
	Product model:			
	<p>Laser Speed Measurement Simulator with calibration certificate from an accredited laboratory, comprising:</p> <ul style="list-style-type: none"> - Laser Speed Measurement Simulator - Optical Interface Unit - Programmable Pulse-Delay Generator - Computer with Applicable software - Oscilloscope - Certificate of Calibration. <p>Laser Speed Measurement Simulator and Programmable Pulse-Delay Generator Hardware Specifications:</p> <ul style="list-style-type: none"> - Performance: <ul style="list-style-type: none"> o Speed range: 16 to 320 km/h, approaching and departing o Speed resolution: 1 km/h o Speed Accuracy: +2 km/h o Minimum distance: 46 m 			

	<ul style="list-style-type: none"> ○ Maximum distance: 1000 m minimum ○ Distance Resolution: ± 0.3 m. - Trigger Input Signal Requirement: <ul style="list-style-type: none"> ○ TTL compatible signal, 20 ns minimum pulse-width. - Lidar Under Test Pulse Repetition Rate (PRR) Measurement: <ul style="list-style-type: none"> ○ Maximum PRR: 13 KHz ○ Resolution: 0,1 Hz. - Delay: <ul style="list-style-type: none"> ○ Resolution: 50 ps ○ RMS Jitter: 20 ps ○ Delay Range: 0,2 μs to 20 μs. - Power Supply: <ul style="list-style-type: none"> ○ AC Input: 220-230 V AC, ± 10 %, 50 Hz, ○ Auxiliary power: 12V DC, 150 mA (nominal). - External Connectors: <ul style="list-style-type: none"> ○ Trigger pulse input BNC connector, from Optical Interface Unit ○ Delayed pulse output BNC connector, to Optical Interface Unit ○ Duplicate trigger and delay BNC ports for independent verification ○ Internal time verification BNC connector ○ 12V DC auxiliary power banana plug connectors, for Optical Interface Unit ○ RS-232 serial communication port to host PC ○ Auxiliary RS-232 serial communication port. - Switches: <ul style="list-style-type: none"> ○ Auxiliary power switch ○ Main power switch. - Environmental Specifications: <ul style="list-style-type: none"> ○ Temperature Range: 0° C to 38° C. 			
--	---	--	--	--

	<p>- Computer: Capable of executing a supplied application program that enables the selection of target speeds and ranges to be simulated and programs the Programmable Pulse Delay Generator with the information.</p> <p>- Oscilloscope: A digital sampling standalone oscilloscope (DSO) is required for routine setup and adjustment of the simulator and for detailed verification that the simulator is working correctly. It shall have an analog bandwidth of at least 500 MHz and a minimum sampling rate of at least 2 gigasamples/sec (2x10). It shall have at least two input channels. Each channel shall have input impedance of 1 MΩ and an auxiliary high-impedance probe.</p> <p>The following additional requirements apply:</p>			
	A – Documentation			
	B - Compliance to safety rules and regulations			
	C - Certificate of calibration			
	F – Warranty			
	G - Commercial Warranty			