# *ANNEX II + III:* TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

**Contract title: “Supply of the specific equipment for measurement of vehicle’s condition and the other portable assets” p 1 /…**

**Publication reference:** CN1 – SO2.1 – SC006 / TD2

**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 offeredspecifications.

| **Item number** | **Specifications required** | **Specifications offered** | **Notes, remarks,  ref to documentation** | **Evaluation committee’s notes** |
| --- | --- | --- | --- | --- |
| **1.** | **Portable Gas analyser for vehicle condition estimation and environmental impact, including Opacimeter, Nox sensors, with temperature measurements, power suply and cabling;** |  |  |  |
|  | Manufacturer’s name: |  |  |  |
|  | Product type, model: |  |  |  |
| Conforms to ISO 3930 standard  To meet the Measuring Instrument Directive – (MID)  Confirms to OIML R99 – Class 0  With min 6 digital displays for visualization of measuring components  Measuring range, components and resolution:  СО 0 ÷ 9.99% vol; Res. 0.01  CO2 0 ÷ 19.9% vol; Res. 0.1  HC hexane 0 ÷ 9.999 ppm vol; Res. 1  O2 0 ÷ 25% vol; Res. 0.01  NOX 0 ÷ 5,000 ppm vol; Res. 1  Lambada 0.5 ÷ 5; Res. 0.001  Oil temperature 20 ÷ 150 °С; Res. 1  The oil temperature can be measured in the following ways: with a RTD Sensor PT100 placed in the oil level meter in the engine which is directly connected on Exhaust Gas Analyzer, oil temperature sensor via Bluetooth module or measured via EOBD interface.  RPM meter 300 ÷ 9,990 rpm; Res. 10  RPM meter can support any of these choices:induction clamp, clamp on to one spark plug wire to log RPM on engine to integrated RPM on Exhaust Gas Analyzer, Alternator ripple (Battery) clamp via Bluetooth module, Acceleration (magnetic) sensor via Bluetooth module or via external EOBD module.  Power supply 12 V DC (11-15 V DC) with the ability to connect to the power supply 230 VAC 1ph 50/60 Hz.  Possibility to connect to a PC via RS232, USB or with Bluetooth module.  Including OPACIMETER  Conforms to ISO11614 standard  The measured values can be displayed on the LCD Displays of the Exhaust Gas Analyzer for monitoring the exhaust systems of petrol engine cars and on the computer.  Measuring range, components and resolution:  Absorption coefficient 0 ÷ 9.99 m­¹; Res. 0.01  Uncorrected opacity 0 ÷ 99.9%; Res. 0.1  Light source 568 nm ± 3 nm  Path length 200 mm  Power supply 12 V DC (11-15 V DC) with the ability to connect to the power supply 230 VAC 1ph 50/60 Hz.  Oil temperature 20 ÷ 150 °С; Res. 1  For oil temperature measurement use the same sensors as Exhaust Gas Analyzer for monitoring the exhaust systems on petrol engine cars use for oil temperature measurement.  RPM meter 300 ÷ 9,990 rpm; Res. 10  For RPM measurement use the same sensors as Exhaust Gas Analyzer for monitoring the exhaust systems of petrol engine cars use for RPM measurement.  Warranty period min. 1 year | |  |  |  |
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| **2.** | **Petrol detector, for simple analysis of light petrol additives to diesel fuel, measuring cup 500ml, filters, packaging;** |  |  |  |
|  | Manufacturer’s name: |  |  |  |
|  | Product type, model: |  |  |  |
| Petrol detector with Green LED indicator for detection of contaminated fuel, from a percentage as small as 0,20% gasoline in a Diesel system  Power is supplied by the 12VDC vehicle electrical system  1 measuring cylinder with min. 30 pcs filter pads  Warranty period min. 1 year | |  |  |  |
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| **3.** | **On vehicle cameras for road monitoring and recording for road condition estimation;** |  |  |  |
|  | Manufacturer’s name: |  |  |  |
|  | Product type, model: |  |  |  |
| Camera Display, Diagonal Size 2“  High-Definition Video Support 4К  Effective Photo Resolution 12МР  Underwater Depth: up to 10м  Microphone Features wind noise reduction  Compatible for mounting various accessories  Electronic image stabilization  Wireless Interface: Bluetooth, Wireless LAN  Memory card slot Micro-SDXC card 64 GB  Warranty period min. 1 year | |  |  |  |
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| **4.** | **Noise meter with calibration 20Hz to 20KHz, with data logging, adjustable time intervals, and multiple parameters recording;** |  |  |  |
|  | Manufacturer’s name: |  |  |  |
|  | Product type, model: |  |  |  |
| To meet the following standards:  IEC 61672-1:2002, Class 2 и IEC 60804:2000 Type 2,  Measuring range 30…130 dB, Resolution 0,1dB  Measuring range in 3 noise levels:  30 – 80 db(C), 50 – 100 dB и 80 – 130 dB  Frequency 3,5 Нz – 8kHz  Time weighting: FAST и SLOW  Frequency weighting: А и С  Display: 4 digit LCD  Accuracy ±1.4 dB  Storage capacity: >32000  Data interface – connected to a PC  PC software  Wind noise suppressor  Power supply: battery and AC power  Warranty period min. 1 year | |  |  |  |
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| **5.** | **ECU vehicle universal diyagnostique data reader unit with, data recording for light and commercial vehicle inputs, with data collection and logging, with cabling and proceeding unit;** |  |  |  |
|  | Manufacturer’s name: |  |  |  |
|  | Product type, model: |  |  |  |
| Diagnostics vehicle interface connected with PC using USB cable or Bluetooth  Software and OBD interface cable for cars diagnostics  Software, adapter kit and standard truck cable case  Software without a mandatory annual subscription (No Limit)  Update – when the costumer wished – to pay  The device must perform the following functions:  To run auto-diagnostic tests, view parameters, status, active devices, perform adjustments reset warning lights, maintenance, service and airbag indicators configure ECU’s  Warranty period min. 1 year | |  |  |  |
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| **6.** | **Termovision camera, -30 to 300 oC, +-2%, with memory card;** |  |  |  |
|  | Manufacturer’s name: |  |  |  |
|  | Product type, model: |  |  |  |
| Temperature measuring range: -20°С до +300°С  Thermal sensitivity/NETD: ≤150mK  Detector type: Non-cooled pyroelectric ceramics  Fixed-focus  Minimum focus distance: 0,5m  Picture frequency: 9Hz  Bolometer array: 32x31 pix  Interfaces micro SD  Micro-SD card slot, Micro SDHC card  Min. 4GB  Warranty period min. 1 year | |  |  |  |
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| **7.** | **Standard tool set for montage and demontage of the equipment on the vehicles, and accessories, with removable casing and long-life guarantee** |  |  |  |
|  | Manufacturer’s name: |  |  |  |
|  | Product type, model: |  |  |  |
| Hand tool consisting of:  Double open ended spanners: 6х7; 8х9; 10х11;12х13; 14х15; 16х17; 18х19; 20х22; 24х27; 30х32 mm  Combination spanners:6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24 mm  Sockets 1/4“: 5,5; 6; 7; 8; 9; 10; 11; 12; 13; 14mm  Sockets 1/2“: 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32mm  Drive handle 1/4“  Bit holder 1/4“ inside hexagon, to insert bits  Quick release ratchet 1/4“  Quick release ratchet 1/2“  Sliding T-handle 1/4“  Sliding T-handle 1/2“  Universal joint 1/4“  Universal joint 1/2“  Extensions 1/4“ L= 54 and150 mm  Extensions 1/2“ L= 52; 130 and 255 mm  Hexagon key wrenches: 1,5; 2,5; 3; 4; 5; 6; 8; 10; 12 mm  Screwdrivers for slotted screws: 0,6х3,5х75 mm; 0,8x4,0x100 mm;1,0х5,5х125mm; 1,2х6,5х150 mm  Cross-head screwdrivers: PH1 80/185 mm; PH2 100/215 mm; PH3 150/275 mm  Combination piler 180mm  Snipe nose piler with cutter 200 mm  Circlip piler for inside circlips 180 mm  Circlip piler for outside circlips 180 mm  Waterpump piler 240 mm  Self grip wrench 250 mm  Heavy duty side cutter for all wires 160 mm  Cold chisel 175 mm  Parallel pin punches 150х6; 175х6 mm  Pin punch 3,4х100 mm  Nylon hammer 35 mm  Engineers hammer 500 gr.  Warranty period min. 1 year | |  |  |  |
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