

**German Financial Cooperation with the „Western Balkan Six Chamber Investment Forum” (WB6-CIF)  
Regional Challenge Fund Project**

Supply Tender „Procurement of High-Performance Liquid Chromatograph (HPLC) coupled with Triple Quadrupole Mass Spectrometer (MS-MS) with Electrospray ionization (ESI) and Atmospheric pressure chemical ionization (APCI) source and Nitrogen generator “

Europe (non-EU), Serbia (SER)  
Reference number: 509186

The answers to requests for clarifications received by the potential bidders to the following e-mail address: [procurement@rcf-wb6.org](mailto:procurement@rcf-wb6.org)

Q1	<p><b>Reviewing the tender documentation and the required minimum technical specifications, it is clearly and undoubtedly visible that the specifications are written in such a way that only one manufacturer, the company Thermo, can meet all the required specifications. The technical specifications are not written in accordance with the Law on Public Procurement, and as proof of the above, we submit Table 1 below, which shows the requested technical specifications and the specifications that can be offered by different manufacturers.</b></p> <p><b>Table 1.</b></p>
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Vendor:	Thermo	Waters	Waters	Agilent	Agilent	Shimadzu
<b>Tenderska specifikacija</b>						
<b>Quaternary pump</b>	Vanquish Core HPLC Systems	Arc/Alliance IS	H Class	1260	1290	Nexera X3/XS
• Flow: 0.001–10 mL/min, in 1 µL/min increments or better	0–10 mL/min	0–10 ml/min	0–2.2 ml/min	0–10 ml/min	0–5 ml/min	0.0001 – 10.0000
• Pressure: minimum up to 700 bar with the flow rate up to 5 mL/min or better	700bar	689 bar	1000bar	600bar	800bar	>1000bar
• Serial dual-piston pump	YES	YES	YES	YES	YES	YES
• Quaternary mixing up to 4 solvents at low pressure or better	YES	YES	YES	YES	YES	YES
• Compressibility Compensation: Fully automated, independent of mobile phase composition	YES	YES	YES	YES	YES	YES
• Leak detection included	YES	YES	YES	YES	YES	YES
• Vacuum degasser: included in the configuration, with 4 channels or better	YES	YES	YES	YES	YES	YES
• Flow precision: 0.05% RSD or better	0,05%	0,075%	0,075%	≤0.07%	≤0.07%	0.06%
• Flow accuracy: ± 0.1% or better	0,1	1%	1%	1%	1%	1%
• Composition precision: 0.15% RSD or better	0,15	0,15	0,15	0,15	0,15	0,15
• Proportioning Accuracy: ±0.5% of full-scale or better	0,5	0,5	0,5	0,4	0,4	0,5
<b>Autosampler</b>						
• Injection volume range: from 0.01 to 100 µl in steps of 0.01 µl increments with 100 µL	0.01 to 100	0.1 to 1000	0.1 to 1000	0.1-100	0.1-100	0.1 to 2000
• Precision of injection: better than 0.25% RSD	0,25%	0,25%	0,25%	0,15%	0,15%	0,15%
• Pressure range: 700 bar or better	700	689	1000	600bar	800bar	>1000bar
• Sample capacity: more than 200 vials of 1,5/2 ml volume	200+	96	96 + 50	<200	<200	162
• Carry over: 0.002% or better	0,002%	0,002%	0,002%	<0.0009 %	<0.0009 %	0,0003%
• Injection cycle time: 8 s or better	<8sec	<30sec	<15sec	<10sec	<10sec	6.7sec
<b>Thermostated column compartment</b>						
• Work principle: Still air and forced air	YES	YES	YES	NO	NO	YES
• Temperature range: from +5 °C to 85 °C or better)	5 to 85	4 to 90	4 to 90	up to 85	up to 85	up to 85
• Temperature precision: 0.1 °C or better	0,1	0,3	0,3	0,1	0,1	0,05/0,1
• Heating rate: from ambient or 20 °C temperature to 50 °C for 15 minutes or better	<15	<15	<15	NO	NO	NO
• Column capacity: 2 columns, up to 300 mm length	YES	NO	NO	YES	YES	YES
<b>MS/MS detector</b>	TSQ Quantis	TQ-XS	TQ-XS	6475	6495C	8050/60
• Mass range: m / z 2 – 3000 (or wider)	2 to 3000	2 to 2048	2 to 2048	5 to 3000	5 to 3000	2 to 2000
• Detector type: discrete-dynode detector	Electron multiplier	Photomultiplier	Photomultiplier	Electron multiplier	Electron multiplier	Electron multiplier
• Mass resolution: 0.4 Da or better	0,4	0,5	0,5	0,5	0,7	<0,5
• Mass stability: f 0.1 Da in 24h	0,1	0,05	0,05	0,1	0,1	0,05
• Dynamic range: 106 or better	10n6	10n6	10n6	10n6	10n6	10n7
• Scan speed: 15000 Da / s or better	17000	20000	20000	18700	17000	30000
• Polarity switching (electronics): f 5 ms	5ms	15ms	15ms	15ms	15ms	5ms
• Vacuum system: turbomolecular pump backed by one mechanical pump	YES	YES	YES	YES	YES	YES
• MRM sensitivity S/N ESI negative measured 1pg of chloramphenicol injected on column, quantifying on the transition m/z 321.0 to 152.0: S/N >500000:1	500 000	500 000	500 000	550 000	350 000	500 000
• Maximum MRM acquisition rate: 600 MRMs/sec	600	500	500	500	500	555

	<p>Following the above, in order to facilitate the procedure in accordance with the Law on Public Procurement, we request the amendment of the following specifications in order to enable market competition and a transparent procurement procedure, which is the legal duty of the Client.</p> <p><b>Requested exchanges:</b>  <b>Flow precision: 0.06% RSD or less</b>  <b>Flow accuracy: 1% or less</b>  <b>Injection volume range: minimum from 0.1 ul – 100 ul with 0.1 ul increments</b>  <b>Sample capacity: minimum 160 positions for 1.5/2 ml vials</b>  <b>Temperature range: minimum from +15 to 85°C</b>  <b>Exclude specification: „Heating rate: from ambient or 20 ° C temperature to 50 ° C for 15 minutes or better“ since different manufacturers differently define this request.</b>  <b>Mass range: minimum m/z 2- 2000</b>  <b>Mass resolution: 0.5 Da or less</b>  <b>MRM acquisition rate: minimum 555 MRMs/sec</b></p> <p><b>We hope that the proposed changes will be accepted in order to enable the client to obtain the procurement item under economic conditions, and if they would not be accepted, we are forced to seek our legal protection.</b></p>
A1	<p>In line with your request for clarifications/amendments to the technical specifications, Section VII. Schedule of Requirements, point 3. Technical Specifications of the published supply tender will be modified as follows:</p> <p>Flow precision: 0.06% RSD or less  <b>Your suggestion is accepted and the new request for Flow precision will be: 0,07 % RSD or less.</b></p> <p>Flow accuracy: 1% or less  <b>Your suggestion is accepted and the new request for Flow accuracy will be: 1% or less.</b></p> <p>Injection volume range: minimum from 0.1 ul – 100 ul with 0.1 ul increments.  <b>Your suggestion is accepted. Injection volume range will be minimum from 0.1 ul – 100 ul with 0.1 ul increments.</b></p> <p>Sample capacity: minimum 160 positions for 1.5/2 ml vials  <b>Your suggestion is not accepted since minimum 2 suppliers have sample capacity of 200 positions and more. Requested specifications for sample capacity will remain the same.</b></p> <p>Temperature range: minimum from +15 to 85°C  <b>Your suggestion is accepted and the request for temperature range will be minimum from +15 to 85°C.</b></p>

Exclude specification: “Heating rate: from ambient or 20 ° C temperature to 50 ° C for 15 minutes or better“, since different manufacturers differently define this request.

**Request for “Heating rate: from ambient or 20 ° C temperature to 50 ° C for 15 minutes or better” will be excluded since different manufacturers differently define this request and it would be difficult to compare them.**

Mass range: minimum m/z 2- 2000

**This request will be amended to Mass range: minimum m/z 5-3000 since minimum 2 suppliers can meet the required specification, also for some planned peptides and protein fragments analysis, the beneficiary institution needs m/z mass range above 2000.**

Mass resolution: 0.5 Da or less

**Your suggestion is accepted and the new request for Mass resolution will be: 0.5 Da or less.**

MRM acquisition rate: minimum 555 MRMs/sec

**Your suggestion is accepted and we further reduce the requirement for MRM acquisition rate: minimum 500 MRMs/sec or better.**

Additionally, reviewing the table which is provided as part of the request for clarifications/amendments and additional market research done by the beneficiary institution, the technical specifications will be amended as follows:

**Pump Flow: 0.001–5 mL/min, in 1 µL/min increments or better.**

**Autosampler Injection cycle time: 10 s or better**

**Thermostated column compartment Work principle: Still air**

**MS/MS detector Polarity switching (electronics): ≤ 25 ms**

Please, also refer to Corrigendum no. 2 to the Tender Dossier.