



CLARIFICATIONS 1

RELATED TO TENDER PROCEDURE (QUESTIONS AND ANSWERS)

Programme	Interreg IPA CBC Romania – Serbia Programme
Project title	Cross-border network for education and research of natural resources
Name of the Contracting Authority	Regional Development Agency Juzni Banat Ltd, Pancevo, Karadjordjeva 4, 26000 Pancevo, Serbia
Tender procedure	Procurement of Liquid chromatography–mass spectrometry instrument
Reference No	2021/S 213-563449
Datum, Mesto / Date, Place	07.03.2022, Pancevo

No	Question	Answer
1	Do you accept instrument with mass range Mass range : 5 to 1500 m/z?	Required mass range is 5 to 3000 m/z or better for instrument which is subject of this tender.
2	<p>In tender specification for Liquid chromatography - mass spectrometry for Autosampler you have required</p> <ul style="list-style-type: none">• <i>Injection cycle time: 10 sec or better</i> <p>Our question is:</p> <p>Is it acceptable to offer a auto sampler that has injection cycle time 18 s for draw speed 200 µL/min. ejection speed: 200 µL/min. Injection volume: 1 µL? Most reputable manufacturers have strictly defined criteria for injection cycle time, which must take in account draw and ejection speed.</p>	<p>Required Injection cycle time: 10 sec or better is required for instrument which is subject of this tender.</p> <p>Draw speed or ejection speed are considered irrelevant for this tender</p>
3	<p>In tender specification for Liquid chromatography - mass spectrometry for Column thermostat you have required</p> <ul style="list-style-type: none">• <i>Temperature stability: ± 0.05 ° C or better</i> <p>Our question is:</p> <p>Is it acceptable to offer a Column thermostat that has temperature stability with ± 0.1 ° C and temperature precision ± 0.05 ° C?</p>	<p>Required Temperature stability: ± 0.05 ° C or better and Temperature precision: 0.1 ° C or better</p> <p>for instrument which is subject of this tender.</p> <p>Therefore Temperature stability: ± 0.01 ° C is not acceptable and Temperature precision: ± 0.05 ° C or better is acceptable</p>



4	<p><i>In the technical specification of the „ Liquid chromatography mass spectrometry instrument" is required: „ Dual pistons in series pump with proprietary' servo-controlled variable stroke design</i></p> <p><i>We propose to change the technical specification in: „ Dual pistons in series pump with proprietary' servo-controlled variable stroke design or Parallel-type double plunger or equivalent “.</i></p> <p>In displaying individual technical specifications of the instrument, Bidders define technical specifications in various ways. An important specifications of the pump are that it has robust performance and minimal pressure pulsations because these characteristics allow efficient analysis of water and soil. The amendment of this specification does not affect the functionality of the instrument itself, but allows more Bidders to participate in this tender.</p>	<p>Technical specifications required for instrument which is subject of this tender are defined after extensive market research and are defined in such way to allow Contracting Authority to procure best possible instrument for purpose required considering budget available.</p> <p>We don't consider proposed change acceptable for this tender.</p>
5	<p><i>We propose to change the technical specification</i></p> <p><i>„Integrated degassing unit with 4 channels“</i></p> <p>to</p> <p><i>„Degassing unit with minimum 4 channels“.</i></p> <p>The task of degasser is to degas the mobile phase. Therefore, the analysis cannot be influenced in any way by an integrated degasser or a standalone degasser as long as the degasser successfully degasses the mobile phase. The integrated degasser is in no way better than the standalone one, it is a different version of the module. According to the above mentioned, the proposed amendment does not in any way reduce the quality of the subject of procurement, but allows greater participation of Bidders in the tender.</p>	<p>Technical specifications required for instrument which is subject of this tender are defined after extensive market research and are defined in such way to allow Contracting Authority to procure best possible instrument for purpose required considering budget available.</p> <p>We don't consider proposed change acceptable for this tender.</p>



6	<p><i>We propose to change the technical specification of Column oven „ Temperature range: +5°C to 85°C or better “</i></p> <p>to</p> <p><i>„ Temperature range: from +15°C to 85°C or better “.</i></p> <p>Water and soil analyzes are performed at oven temperatures of 20 to 40 °C, and the required modification does not narrow area of application of the instrument. The amendment of this specification enables greater participation of Bidders in this tender, which contributes to the Client obtaining a high-end model under the most economically favorable conditions.</p>	<p>Technical specifications required for instrument which is subject of this tender are defined after extensive market research and are defined in such way to allow Contracting Authority to procure best possible instrument for purpose required considering budget available.</p> <p>We don't consider proposed change acceptable for this tender.</p>
7	<p><i>We propose to change following technical specifications of Column oven:</i></p> <p><i>„Heat up time: 15 min from 20 to 40 °C or better“</i></p> <p>to</p> <p><i>„Heat up time: 15 min from defined temperature values of the manufacturer or better“.</i></p> <p><i>„Cool down time: 15 min from 40 °C to 20 °C or better“</i></p> <p>to</p> <p><i>„Cool down time: 60 min from defined temperature values of the manufacturer or better“</i></p> <p>Equivalent changes to the technical specifications have been proposed so that Bidders with different ways of defining and presenting certain technical specifications of the instrument can participate in the tender. The amendment of this specification does not affect the functionality of instrument itself, but enables more Bidders to participate in this tender, which is a legal obligation of the Client.</p>	<p>Technical specifications required for instrument which is subject of this tender are defined after extensive market research and are defined in such way to allow Contracting Authority to procure best possible instrument for purpose required considering budget available.</p> <p>Understandably if column oven has working temperature less than 40 °C and has cooling and heating time less than 15 minutes this instrument will be considered acceptable. In any other case we don't consider proposed change acceptable for this tender.</p>
8	<p><i>We propose to change the technical specification of UV detector diode array</i></p> <p><i>„Data rate: 120 Hz“</i></p> <p>to</p> <p><i>„Data rate: minimum 100 Hz“.</i></p> <p>Trace-level measurements, at a recording speed of at least 100 Hz fully enable the full potential of LCMSMS analysis without reducing the efficiency of the separation itself. The amendment of this specification does not affect functionality of instrument itself, but enables participation of a larger number of Bidders in this tender.</p>	<p>Technical specifications required for instrument which is subject of this tender are defined after extensive market research and are defined in such way to allow Contracting Authority to procure best possible instrument for purpose required considering budget available.</p> <p>We don't consider proposed change acceptable for this tender.</p>



9	<p><i>We propose to change the technical specification</i></p> <p><i>„Mass range: 5 to 3000 m/z or better “</i></p> <p>to</p> <p><i>„Mass range: up to 2000 m/z or better“</i></p> <p>The mass range „up to 2000 m/z or better“ is sensitive and wide enough to allow efficient analysis of ions of different classes and concentrations in the required analyzes. Wide reference base of instruments available to the interested economic operator in this area of analysis is sufficient evidence that requiring a mass range of up to 3000 m/z does not provide the Client with a wider range of applications. The amendment of this specification does not reduce the efficiency of conducting analyzes on the requested instrument, but it enables the participation of a larger number of Bidders in the tender.</p>	<p>Technical specifications required for instrument which is subject of this tender are defined after extensive market research and are defined in such way to allow Contracting Authority to procure best possible instrument for purpose required considering budget available.</p> <p>We don't consider proposed change acceptable for this tender.</p>
10	<p><i>We propose to change the technical specification</i></p> <p><i>„MRM sensitivity S/N ESI positive: 1 pg reserpine injected on column; quantifying on the transition m/z 609.3 – 195.1 S/N >200000:1 or better “</i></p> <p>to</p> <p><i>„MRM sensitivity S/N ESI positive: 1 pg reserpine injected on column; quantifying on the transition m/z 609.2 or 609.3 - 195.1 S/N >200000:1 or better“.</i></p> <p>In presenting individual technical specifications of the instrument, different Bidders define the specifications in different ways. The amendment of this specification does not affect the functionality of the instrument itself, and enables the participation of a larger number of Bidders in this tender.</p>	<p>Technical specifications required for instrument which is subject of this tender are defined after extensive market research and are defined in such way to allow Contracting Authority to procure best possible instrument for purpose required considering budget available.</p> <p>We don't consider proposed change acceptable for this tender.</p>



11	<p><i>We propose to change the technical specification</i></p> <p><i>„ Dwell time: 0.5 msec “</i></p> <p><i>to</i></p> <p><i>„ Dwell time: 0.8 msec or better “.</i></p> <p>Dwell time needs to be optimized during each analysis in such a way that quality identification and quantification of peaks can be performed programmatically. The standard peak generated with ultra-fast liquid chromatography is two to three seconds wide and for quality quantification and identification that peak must have a minimum of 15 to 20 points per peak to generate a proper Gaussian curve. To define the maximum time required for the entire loop time or cycle time, the peak width is divided by the number of points per peak. For the narrowest peaks it is: $2s / 15 = 0.133s = 133ms$. To define the total time of the whole cycle for MRMs, it is necessary to specify “pause time” and “dwell time”. “Pause time” is standard around 1 ms, and therefore it turns out that approximately 100 ms is optimal for peaks generated by ultra-fast liquid chromatography. “Pause time” is not defined at all in technical specifications, and it is crucial to be as low as possible since it affects the total “cycle = loop” time and according to it the most optimal dwell time is defined. “Dwell time” of less than 10ms is not used in methods given that it drastically degrades the appearance of peaks, and ultimately precision, sensitivity, and repeatability. A higher value of Dwell time has been shown to have a positive effect on the appearance of the chromatographic peak and ultimately on the analytical result itself. By amending the requested specification, it is possible for a larger number of Bidders to appear in the tender, and since all mentioned, we ask you to accept the requested change.</p>	<p>Technical specifications required for instrument which is subject of this tender are defined after extensive market research and are defined in such way to allow Contracting Authority to procure best possible instrument for purpose required considering budget available.</p> <p>Dwell time low as 0.5 msec must be supported by instrument. Instruments in line with this requirement also support longer dwell times.</p> <p>We don't consider proposed change acceptable for this tender.</p>
12	<p><i>We ask you to consider the submission of the Bidder's statement along with the catalogs of the offered equipment in order to clearly determine evidence of the technical specifications.</i></p>	<p>This is not in line with this type of tender procedure</p> <p>For supply procedures, only successful tenderers have to supply proof documents to support the information submitted in the tender before the award of the contract (if not already submitted with offer).</p>

Igor Knežević, Director


