



Request for Quotations (RFQ) for upgrade of 300DS (200 L bioreactor) DCU to Siemens Platform

RFQ No. 9344/17/01/2022

Date of issue	08 December 2021
Closing Date and Time	17 January 2022 at 16:30
Contact details	Submission of quotations or any other enquiries is via email only and must be sent: tender@csir.co.za <i>(Please use RFQ number as subject reference)</i>
Category:	Professional Services
CSIR Business Hours	08:00 – 16:30

1 INVITATION FOR QUOTATION

Quotations are hereby invited for the supply of services to upgrade the existing Sartorius 300DS (200 L bioreactor) DCU to a Siemens Platform.

2 SCOPE OF WORK

The supplier is required to quote for the following services:

- **PLC hardware - CPU:**
 - System power supply, 25 W, 24 V DC
 - Mounting rail, 245 mm
 - CPU, 150KB working memory, 1MB data memory, 1 PN interface with 2 port switches, SIMATIC memory card necessary
 - SIMATIC S7, Memory card for S7-1X00 CPU/Sinamics, 3,3 V Flash, 12 MB
 - Scalance XB005 unmanaged industrial ethernet switch 10/100 Mbits/s, 24 V AC/DC power supply, with 5 x 10/100 Mbits/s RJ45 sockets

- **PLC Hardware – Remote Input/Output:**
 - **Profinet Interface Module:** SIMATIC ET 200SP, Profinet, 3-ports interface module, IM 155-6 PN/3 high feature, 2 slots for busadapter, Max 64 I/O modules and 16 ET 200 AL modules, S2 redundancy, Multi-hotswap, 0.25 MS, Isochronous mode, optional PN strain relief, including server module
 - **16 Channel x Digital Input Module:** SIMATIC ET 200SP, Digital input module, DI 16 x 24 V DC standard, Type 3 (IEC 61131), Sink input, (PNP, P-reading), Packing unit: 1 piece, fits to BU-type A0, colour code CC00, input delay time 0.005...20ms, diagnostics wire break, diagnostics supply voltage
 - **16 Channel x Digital Output Module:** SIMATIC ET 200 SP, digital output module, DQ 16 x 24 V DC/0.5A standard, source output (PNP, P-switching), Packing unit: 1 piece, fits to BU-type A0, colour code CC00, substitute value output, module diagnostics, for: short-circuit to L+ and ground, wire break
 - **4 Channel x Analog Input Module (Current) 2/4 Wire:** SIMATIC ET 200SP, analog input module, AI 4 x I 2-/4- wire standard, Packing unit: 1 piece, fits to BU-type A0, A1, colour code CC03, module diagnosis, 16 bit, +/- 0.3%
 - **4 Channel x Analog Output Module (Current) Wire:** SIMATIC ET 200SP, Analog output module, AQ 4 x U/I standard, suitable for BU type A0, A1, colour code CC00, module diagnostics, 16 bit, +/- 0.3%
 - **Bases for IO Modules:**
 - Simatic ET 200SP, Baseunit BU15-P16+A10+2B, BU type AO, push-in terminals, with 10 AUX terminals, bridged to the left, WXH: 15 MM x 141 MM
 - SIMATIC ET 200 SP, Baseunit BU15-P16+A10+2D, BU type AO, push-in terminals, with 10 AUX terminals, new load group, WXH: 15 MM x 141 MM

- **SIMATIC HMI Panel:**
 - SIMATIC HMI TP1200 Comfort, comfort panel, touch operation, 12" widescreen-TFT-display, 16 Mil. Colours, Profinet interface, MPI/Profibus DP interface, 12 MB user memory, Windows CE 6.0, configurable from WinCC Comfort V11
 - SIMATIC WinCC Audit for SIMATIC panels

- **SCADA system:**
 - SIMATIC WinCC Runtime Advance 512 Powertags V17
 - SIMATIC WinCC Audit for Runtime Advanced Option F. WinCC (TIA portal) Runtime
 - SIMATIC WinCC logging for Runtime Advanced

- Dell Optiplex, I7 processor, 16 GB DDR4 RAM, 256 GB SSD, 1TB hard drive, keyboard & mouse, Windows 10 Pro
- LG 24" monitor
- **Control panel hardware (existing panel to be modified):**
 - Tripple bridged 0.25 mm² – 2.5 mm²
 - Tripple non-bridged 0.25 mm² – 2.5 mm²
 - Slim relay socket 1C O LED 24 VAC DC SCRW
 - Double non-bridged 0.25 mm² – 2.5 mm²
 - Fused 0.25 mm² – 2.5 mm²
 - Consumables
 - Labour panel manufacturing/modification
- **Instrumentation for integration with new system:**
 - **Pressure transmitter, 4-20 mA output, 0-10 bar, special process connection:** CERABAR PMP21 complete with manufactured process connection – 52002643
 - **Mettler Toledo analytical transmitter M300:** Transmitter M300 Process 2-channel ½ DIN, 4X4...20mA outputs
 - **Temperature transmitter, PT100 to 4-20 mA:** ITEMP TMT71, DIN Railtransmitter, 4 – 20 mA
 - **Weighing scale transmitter:** Transmitter IND360, load cell strain gauge input, Profinet interface
- **Software, Engineering and Commissioning:**
 - Labour PLC software development including PLC hardware configuration, device setup, control sequences
 - Labour SCADA software development including setup of SCADA graphics, device configuration, control pages, tags and templates
 - Control system commissioning
 - Control system design
 - Transmitter M300 Process 2-channel ½ DIN, 4X4...20mA outputs
 - ITEMP TMT71, DIN Railtransmitter, 4 – 20 mA
 - Transmitter IND360, load cell strain gauge input, Profinet interface
- **Electrical installation:**
 - Cable instrument 0.5 mm² x 2 pair
 - Labour electrical installation
- **Documentation:**
 - Documentation (equipment manuals, datasheets, IO list, spares list)
 - Electrical drawings (panel GA, electrical drawings, loop drawings, PLC network and layout)
 - Quality control documentation
- **Medicals, Safety and Induction:**
 - Safety file to be included in quote

The following items are compulsory and failure to provide will result in elimination:

- All specifications, as above, to be included in quote
- All freight and delivery costs to be included in quote
- All travel costs to be included
- Training manuals to be handed over and included in the quote
- Training to be provided and included in the quote
- Supply evidence of OEM (Siemens) certification or distributor appointment letter
- Supply proof of at least 3 year track record of similar services offered
- Offer of technical support, maintenance, upgrade and/or certification of equipment
- Include Warranty between 1 – 2 years in quote
- Indicate lead time for delivery in quote

NB* Site visit can be arranged on request in order to quote for the services required.

3 EVALUATION CRITERIA

- 3.1 No order will be issued without a valid CSD number.
- 3.2 Selection of suppliers will be based on the 80/20 preference point system.
- 3.3 Provide a SANAS accredited B-BBEE Certificate, sworn affidavit from the DTI OR CIPC indicating the B-BBEE status level.
- 3.4 No B-BBEE status will equal to zero points.
- 3.5 Quotations must be submitted on company letterhead.

Elimination Criteria

- Submission of quotes after the deadline;
- Submission at the wrong location or incorrect email address (Please submit electronically to tender@csir.co.za)
- Bidders to quote as per scope of work and failure to do so will result to disqualification.
- Non-submission of quotes on company letterhead.

4 PRICING QUOTATION

- 4.1 Price needs to be provided in South African Rand (excl. VAT), with details on price elements that are subject to escalation and exchange rate fluctuations clearly indicated.
- 4.2 Price should include additional cost elements such as freight, insurance until acceptance, duty where applicable, etc.

- 4.3 Only firm prices* will be accepted during the tender validity period. Non-firm prices** (including prices subject to rates of exchange variations) will not be considered

**Firm price is the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax which, in terms of a law or regulation is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;*

***Non-firm price is all prices other than "firm" prices*

- 4.4 Payment will be according to the CSIR Payment Terms and Conditions.

5 VALIDITY PERIOD OF THE QUOTATION

Each quotation shall be valid for a minimum period of three (3) months calculated from the closing date.

6 APPOINTMENT OF SERVICE PROVIDER

- 6.1 The contract will be awarded to the tenderer who scores the highest total number of points during the evaluation process, except where the law permits otherwise.
- 6.2 Appointment as a successful service provider shall be subject to the parties agreeing to mutually acceptable contractual terms and conditions. In the event of the parties failing to reach such agreement, CSIR reserves the right to appoint an alternative supplier.
- 6.3 Awarding of contracts will be announced on the National Treasury website, and no regret letters will be sent to unsuccessful bidders.

7 OTHER TERMS AND CONDITIONS

- 7.1 The supplier shall under no circumstances offer, promise or make any gift, payment, loan, reward, inducement, benefit or other advantage, which may be construed as being made to solicit any favour, to any CSIR employee or its representatives. Such an act shall constitute a material breach of the Agreement and the CSIR shall be entitled to terminate the Agreement forthwith, without prejudice to any of its rights.

- 8 No goods and/or services should be delivered to the CSIR without an official CSIR Purchase order. CSIR purchase order number must be quoted on the invoice. Invoices without CSIR purchase order numbers will be returned to supplier.**

DECLARATION BY TENDERER

Only tenderers who completed the declaration below will be considered for evaluation.

RFQ No: 9344/17/01/2022

I hereby undertake to render services described in the attached tendering documents to CSIR in accordance with the requirements and task directives / quotation specifications stipulated in RFQ No 9344/17/01/2022 at the price/s quoted. My offer/s remains binding upon me and open for acceptance by the CSIR during the validity period indicated and calculated from the closing date of the quotation.

I confirm that I am satisfied with regards to the correctness and validity of my quotation; that the price(s) and rate(s) quoted cover all the services specified in the quotation documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this quotation as the principal liable for the due fulfilment of this quotation.

I declare that I have no participation in any collusive practices with any tenderer or any other person regarding this or any other quotation.

I accept that the CSIR may take appropriate actions, deemed necessary, should there be a conflict of interest or if this declaration proves to be false.

I confirm that I am duly authorised to sign this quotation.

NAME (PRINT)
CAPACITY
SIGNATURE
NAME OF FIRM
DATE

WITNESSES	
1
2
DATE:	

7 ANNEXURE A – SBD 1 (Completed form to be submitted with the quotation)