

Technical Specification and Evaluation Matrix

Chair of Crop Genetics – University of Rostock

1. Subject Matter of the Procurement

The procurement concerns an automated electrophoresis system for the standardised quality control and fragment analysis of DNA and RNA samples. At the Chair of Crop Genetics, the system will be used in particular for quality control of nucleic acid extracts, RNA samples for transcriptome/RNA-Seq analyses, DNA samples for genotyping, and size and quality control of NGS libraries. The objective is rapid, reproducible and largely automated analysis with low sample consumption and minimal manual effort.

2. Technical Minimum Requirements (Mandatory Requirements)

No.	Requirement
M1	Automated electrophoretic analysis of DNA and RNA
M2	Determination of fragment sizes and size distributions
M3	Quantitative or semi-quantitative assessment of nucleic acid quality and integrity
M4	Suitability for quality control of NGS libraries
M5	Automated data acquisition and software-assisted evaluation with electropherogram/gel view
M6	Data export for documentation and further evaluation
M7	Analysis of up to 96 samples per run
M8	Required sample volume of no more than 15 µl per analysis, suitable for valuable DNA/RNA samples
M9	Provision of a complete operational system, including control computer/software or functionally equivalent equipment
M10	Installation and instruction/user training

3. Delivery

Delivery shall be made free to the place of use in accordance with DPU (Incoterms 2020)

University of Rostock

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18059 Rostock

If delivery is not possible, this must be stated in the tender. A collection address must be provided.

4. Payment Terms

The University of Rostock intends to make payment for the delivery, installation and acceptance of the supplies/services. If this is not possible by 30 November 2026, the following payment schedule shall be agreed:

100% following submission of an absolute bank guarantee after award of the contract. The invoice and the corresponding guarantee must be received by the University of Rostock by 30 November 2026.

Payment in accordance with the payment terms is subject to the condition precedent that an absolute, unlimited, irrevocable bank guarantee payable on first demand and without defences is submitted.

The bank guarantee must be issued by a credit institution authorised in the European Union and must cover 100% of the contract value, including VAT.

The guarantee must ensure that the guarantor credit institution is obliged, upon the contracting authority's first written demand, to make payment without delay, waiving the defences of avoidance, set-off, prior action against the principal debtor (Section 771 of the German Civil Code (BGB)) and any other defences arising from the principal obligation, provided that the contracting authority declares that the contractor has failed, in whole or in part, to fulfil its contractual obligations.

The guarantee shall remain valid until proper acceptance of the subject matter of the contract and shall be returned to the contractor following full acceptance, provided that the contracting authority has no outstanding claims.

5. Delay/Contractual Penalty

1. The contractor undertakes to provide the agreed delivery in full and within the agreed time limit.
2. In the event of culpable failure to meet the contractually agreed delivery and installation deadlines, or failure to fulfil other material contractual obligations, a contractual penalty shall become payable.
3. The contractual penalty shall amount to 0.05% of the net contract value for each calendar day of delay, subject to a maximum total of 8% of the net contract value.
4. The contracting authority may assert the contractual penalty up to the date of final payment. No express reservation upon acceptance or receipt of the delivery is required.
5. Any contractual penalty incurred shall be set off against claims for damages by the contracting authority arising from the same breach of duty. Any further claims for damages shall remain unaffected.

6. Tender Evaluation

The tender evaluation shall be conducted in two separate stages. First, the minimum requirements set out in Section 2 will be assessed as exclusion criteria. Only tenders that comply with all mandatory requirements and provide verifiable evidence of compliance in the tender documents will subsequently be evaluated.

Admissible tenders will be evaluated on the basis of qualitative criteria (85%) and price (15%). A maximum total of 400 evaluation points may be achieved: 340 points for quality and 60 points for price. The contract will be awarded to the eligible tender achieving the highest total score.

6.1 Evaluation System for the Qualitative Criteria

Objective added-value thresholds carrying 1 to 4 points are defined for each qualitative criterion. If evidence is not provided for the 1-point threshold, 0 points will be awarded. Mere compliance with a mandatory requirement does not result in quality points. The points awarded are multiplied by the respective weighting factor. The weighting factors total 85; where the maximum of 4 points is achieved, a maximum of 340 quality evaluation points is obtained. Only added value substantiated in a verifiable manner in the tender will be taken into account.

Q1 - Flexibility in Sample Numbers and Cost-Efficiency for Small Batches (Weighting Factor 15)

Points	Objective evaluation benchmark
1	Analysis batches of no more than 48 samples are possible; however, unused positions cause additional consumption or additional costs.
2	Analysis batches of no more than 24 samples are possible; smaller batches incur costs or consumption for unused positions.
3	Analysis batches of no more than 8 samples are possible without discarding an entire consumable; unused positions remain at least partly available for further use.

Points	Objective evaluation benchmark
4	Any number of samples from 1 to 96 can be analysed according to need; consumables are used or charged only for sample positions actually used.

Q2 - Sample Consumption / Conservation of Valuable Samples (Weighting Factor 10)

Points	Objective evaluation benchmark
1	The required sample volume is no more than 10 µl per analysis.
2	The required sample volume is no more than 7.5 µl per analysis.
3	The required sample volume is no more than 5 µl per analysis.
4	The required sample volume is no more than 2 µl per analysis.

Q3 - Range of DNA, RNA and NGS Applications (Weighting Factor 15)

Points	Objective evaluation benchmark
1	In addition to the mandatory applications of DNA, RNA and NGS library control, at least one further clearly defined application class is demonstrated.
2	In addition, at least two further application classes are demonstrated, e.g. genomic DNA or high-sensitivity DNA.
3	In addition, at least three further application classes are demonstrated, e.g. genomic DNA, high-sensitivity DNA and small-RNA applications.
4	In addition, at least four further application classes are demonstrated; application-specific assays or validated methods with different concentration or size ranges are available for DNA, RNA and NGS.

Q4 - Quality and Integrity Metrics (Weighting Factor 10)

Points	Objective evaluation benchmark
1	In addition to fragment size/distribution and basic integrity assessment, concentration determination and at least one automatically calculated quality or integrity metric are demonstrated.
2	In addition, concentration determination and at least two automatically calculated quality/integrity metrics or comparable objective indicators are demonstrated.
3	In addition, standardised integrity metrics for DNA and RNA and user-documentable thresholds are demonstrated.
4	In addition, standardised integrity metrics for DNA and RNA, user-adjustable thresholds, automated result reports and documented comparability between runs are demonstrated.

Q5 - Minimisation of Contamination/Carryover and Consumables Concept (Weighting Factor 10)

Points	Objective evaluation benchmark
1	A cleaning or separation concept is demonstrated; documented carryover is no more than 2% or is minimised by sample-specific separate fluidics.
2	Documented carryover is no more than 1% or is prevented by sample-specific separate fluidics.
3	Documented carryover is no more than 0.5%; cleaning/separation is automated or performed through separate single-use sample paths.
4	Documented carryover is no more than 0.1%, or each sample is processed in a physically separate single-use analysis path; the consumables are ready to use and clearly traceable.

Q6 - Automation, Ease of Use and Time Required (Weighting Factor 10)

Points	Objective evaluation benchmark
1	Hands-on time of no more than 30 minutes and provision of results for a typical small batch within no more than 120 minutes are demonstrated on a binding basis.
2	Hands-on time of no more than 25 minutes and provision of results for a typical small batch within no more than 90 minutes are demonstrated.
3	Hands-on time of no more than 20 minutes and provision of results for a typical small batch within no more than 60 minutes are demonstrated; sample processing is largely automated.
4	Hands-on time of no more than 10 minutes and provision of results for a typical small batch within no more than 30 minutes are demonstrated; data acquisition, evaluation and result reporting are automated.

Q7 - Software, Visualisation and Data Export (Weighting Factor 10)

Points	Objective evaluation benchmark
1	In addition to the mandatory functions, an electropherogram and gel view, comparison of multiple samples, and export of results in at least one commonly used open format are demonstrated.
2	In addition, adjustable evaluation ranges and an overlay or comparative presentation are demonstrated.
3	In addition, comparative batch evaluation and export in at least two commonly used open formats are demonstrated.
4	In addition, automated quality reports, adjustable thresholds, comparative batch evaluation, access to raw data and export in at least two commonly used open formats are demonstrated.

Q8 - Installation, Training, Warranty and Service (Weighting Factor 5)

Points	Objective evaluation benchmark
1	In addition to installation and basic instruction, at least one additional training day, a warranty of at least 12 months or equivalent protection, and a specified support channel are included.
2	In addition, a software/evaluation workflow and specifically described maintenance or response services are included.
3	At least two additional training days, including the software/evaluation workflow, a warranty of at least 12 months or equivalent protection, and specifically described maintenance and support services are included.
4	At least two additional training days, including a supervised evaluation workflow, a warranty of at least 24 months or equivalent protection, and maintenance, support and response services described on a binding basis are included.

6.2 Quality Evaluation Matrix

The “Rationale/Reference” column shall be completed exclusively by the procurement office/contracting authority as part of the tender evaluation; tenderers shall not enter any information there. The procurement office/contracting authority shall briefly document the relevant tender information and its reference. Weighted evaluation points = points awarded (0–4) × weighting factor.

No.	Qualitative criterion	Points / 0–4	Weighting / factor	Weighted / points	Rationale/reference / (contracting authority only)
Q1	Flexibility in sample numbers and cost-efficiency for small batches		15		
Q2	Sample consumption / conservation of valuable samples		10		
Q3	Range of DNA, RNA and NGS applications		15		

No.	Qualitative criterion	Points / 0–4	Weighting / factor	Weighted / points	Rationale/reference / (contracting authority only)
Q4	Quality and integrity metrics		10		
Q5	Minimisation of contamination/carryover and consumables concept		10		
Q6	Automation, ease of use and time required		10		
Q7	Software, visualisation and data export		10		
Q8	Installation, training, warranty and service		5		
	Total quality		85	max. 340	

6.3 Price Evaluation

No maximum budget is assumed for the price evaluation. The evaluation shall be based exclusively on the actual eligible total tender prices for the fully operational configuration, including delivery and all mandatory ancillary services.

Price parameter	Definition
P_lowest	Lowest eligible total tender price, net
P_i	Eligible total tender price of the tender being evaluated; price points = $60 \times P_lowest / P_i$

$$\text{Price evaluation points} = 60 \times (P_lowest / P_i)$$

- P_lowest denotes the lowest eligible total tender price; P_i denotes the eligible total tender price of the tender being evaluated.
- The lowest-priced eligible tender receives 60.00 price evaluation points.
- All other eligible tenders receive proportionally fewer points. The result of the formula shall be rounded commercially to two decimal places.
- A notional Pmin/Pmax range and a budget limit not stipulated in advance shall not be used.

6.4 Overall Evaluation

Evaluation area	Weighting	Maximum points	Points achieved
Quality	85%	340	
Price	15%	60	
Total	100%	400	

Overall evaluation points = sum of the weighted quality evaluation points + price evaluation points. In the event of a tie, the ranking rule stipulated in advance in the procurement documents shall apply.