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Item Nr	ICN NUMBER	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)
12	9825T05085611	Validation of software for GC-MS	1	
13	9825T05085386	System validation-Installation Qualification, Operational Qualification and Performance Verification (IQ/OQ/PV)	1	
14	9825T05085376	Specialised support service, validation and verification	1	
15	9825T05085605	Maintenance and repairs for GC-MS instrument	1	
16	9825T05030161	Service, Maintenance and repairs of instrument printer	1	
17	9825T05083995	Service and maintenance of gas lines	1	
18	9825T05083987	Major service with calibration for GC-MS (OQ-PV)	1	
19	9825T05083988	Minor service for GC-MS instruments: Functional Verification (FV)	1	
20	9825T05084011	Replacement of batteries for instrument UPS system	1	
21	9825T05083998	Labour hours for specialised instrument support	1	
22	9825T05084004	Labour hours for major ad-hoc maintenance of GC-MS instruments	1	
23	9825T05083999	Labour hours for minor ad-hoc maintenance of GC-MS instruments	1	
24	9825T05084010	Service of instrument UPS system	1	
25	9825T05083976	Upgrade GC-MS firmware and software.	1	
26	9825T05083980	Upgrade of GC-MS workstations (PC /Laptop)	1	
27	9825T05084975	Update/upgrade of electronic reference libraries, GC-MS	1	
28	9825T05083986	Licensing fees for software upgrade	1	
29	6640T05085607	GC-MS tool kit	1	
30	9825T05085606	Additional GC-MS maintenance training (Cleaning of ion source)	1	
31	9825T05085613	Two years extended warranty for GC-MS	1	
32	9825T05040538	Autoinjector tower, GC-MS	1	

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Item Nr	ICN NUMBER	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)
		replacement module		
33	6640T05048794	Column Nut 1.2mm, MSD interface, 2/pack	1	
34	6640T05048795	Column Nut, GC Inlet interface, 2/pack	1	
35	6640T05082079	Carrier Gas filter	1	

- Required by: **DIVISION: Detective and Forensic Services**
- At: **GAUTENG FORENSIC LABS AS PER ADDRESS LIST IN SPECIFICATION**
- COUNTRY OF MANUFACTURE

Brand and model

- Does the offer comply with the specification(s)? *YES/NO
- If not to specification, indicate deviation(s)
- Period required for delivery
*Delivery: Firm/not firm
- Delivery basis

Note: All delivery costs must be included in the bid price, for delivery at the prescribed destination.

** "all applicable taxes" includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

*Delete if not applicable

PRICING SCHEDULE – FIRM PRICES (PURCHASES)

NOTE: ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of bidder.....	Bid number 19/1/9/33TD (23)
Closing Time 11:00	Closing date: 2023-10-04

OFFER TO BE VALID FOR 90 DAYS FROM THE CLOSING DATE OF BID.

Item Nr	ICN NUMBER	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)
36	9825T05084342	Supply, Delivery and Commissioning of GC-MS instruments	1	
37	9825T05085609	Supply of firmware and software for GC-MS	1	
38	9825T05085377	Supply of workstations (PC Laptop)	1	
39	9825T05085379	Supply of printer	1	
40	9825T05085378	Supply of reference libraries	1	
41	9825T05083985	Supply and installation of Anti-Virus protection for analytical instruments data workstations	1	
42	9825T05085385	Supply of Certified Reference Material	1	
43	9825T05085610	Supply, Delivery and Installation of Uninterruptible Power Supply (UPS)	1	
44	9825T05085608	Supply and Installation of gas lines for instruments	1	
45	9825T05085604	Training for GC-MS instruments	1	
46	9825T05085451	Licensing fees for software	1	



Item Nr	ICN NUMBER	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)
47	9825T05085611	Validation of software for GC-MS	1	
48	9825T05085386	System validation-Installation Qualification, Operational Qualification and Performance Verification (IQ/OQ/PV)	1	
49	9825T05085376	Specialised support service, validation and verification	1	
50	9825T05085605	Maintenance and repairs for GC-MS instrument	1	
51	9825T05030161	Service, Maintenance and repairs of instrument printer	1	
52	9825T05083995	Service and maintenance of gas lines	1	
53	9825T05083987	Major service with calibration for GC-MS (OQ-PV)	1	
54	9825T05083988	Minor service for GC-MS instruments: Functional Verification (FV)	1	
55	9825T05084011	Replacement of batteries for instrument UPS system	1	
56	9825T05083998	Labour hours for specialised instrument support	1	
57	9825T05084004	Labour hours for major ad-hoc maintenance of GC-MS instruments	1	
58	9825T05083999	Labour hours for minor ad-hoc maintenance of GC-MS instruments	1	
59	9825T05084010	Service of instrument UPS system	1	
60	9825T05083976	Upgrade GC-MS firmware and software.	1	
61	9825T05083980	Upgrade of GC-MS workstations (PC /Laptop)	1	
62	9825T05084975	Update/upgrade of electronic reference libraries, GC-MS	1	
63	9825T05083986	Licensing fees for software upgrade	1	
64	6640T05085607	GC-MS tool kit	1	
65	9825T05085606	Additional GC-MS maintenance training (Cleaning of ion source)	1	
66	9825T05085613	Two years extended warranty for GC-MS	1	
67	9825T05040538	Autoinjector tower, GC-MS	1	

Item Nr	ICN NUMBER	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)
		replacement module		
68	6640T05048794	Column Nut 1.2mm, MSD interface, 2/pack	1	
69	6640T05048795	Column Nut, GC Inlet interface, 2/pack	1	
70	6640T05082079	Carrier Gas filter	1	

- Required by: **DIVISION: Detective and Forensic Services**
- At: **KWA-ZULU NATAL FORENSIC LABS AS PER ADDRESS LIST IN SPECIFICATION**
- **COUNTRY OF MANUFACTURE**

Brand and model

- Does the offer comply with the specification(s)? *YES/NO
- If not to specification, indicate deviation(s)
- Period required for delivery
- Delivery basis

Note: All delivery costs must be included in the bid price, for delivery at the prescribed destination.

** "all applicable taxes" includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

*Delete if not applicable

PRICING SCHEDULE – FIRM PRICES (PURCHASES)

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Closing Time 11:00	Closing date: 2023-10-04

OFFER TO BE VALID FOR 90 DAYS FROM THE CLOSING DATE OF BID.

Item Nr	ICN NUMBER	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)
71	9825T05084342	Supply, Delivery and Commissioning of GC-MS instruments	1	
72	9825T05085609	Supply of firmware and software for GC-MS	1	
73	9825T05085377	Supply of workstations (PC Laptop)	1	
74	9825T05085379	Supply of printer	1	
75	9825T05085378	Supply of reference libraries	1	
76	9825T05083985	Supply and installation of Anti-Virus protection for analytical instruments data workstations	1	
77	9825T05085385	Supply of Certified Reference Material	1	
78	9825T05085610	Supply, Delivery and Installation of Uninterruptible Power Supply (UPS)	1	
79	9825T05085608	Supply and Installation of gas lines for instruments	1	
80	9825T05085604	Training for GC-MS instruments	1	
81	9825T05085451	Licensing fees for software	1	

Item Nr	ICN NUMBER	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)
82	9825T05085611	Validation of software for GC-MS	1	
83	9825T05085386	System validation-Installation Qualification, Operational Qualification and Performance Verification (IQ/OQ/PV)	1	
84	9825T05085376	Specialised support service, validation and verification	1	
85	9825T05085605	Maintenance and repairs for GC-MS instrument	1	
86	9825T05030161	Service, Maintenance and repairs of instrument printer	1	
87	9825T05083995	Service and maintenance of gas lines	1	
88	9825T05083987	Major service with calibration for GC-MS (OQ-PV)	1	
89	9825T05083988	Minor service for GC-MS instruments: Functional Verification (FV)	1	
90	9825T05084011	Replacement of batteries for instrument UPS system	1	
91	9825T05083998	Labour hours for specialised instrument support	1	
92	9825T05084004	Labour hours for major ad-hoc maintenance of GC-MS instruments	1	
93	9825T05083999	Labour hours for minor ad-hoc maintenance of GC-MS instruments	1	
94	9825T05084010	Service of instrument UPS system	1	
95	9825T05083976	Upgrade GC-MS firmware and software.	1	
96	9825T05083980	Upgrade of GC-MS workstations (PC /Laptop)	1	
97	9825T05084975	Update/upgrade of electronic reference libraries, GC-MS	1	
98	9825T05083986	Licensing fees for software upgrade	1	
99	6640T05085607	GC-MS tool kit	1	
100	9825T05085606	Additional GC-MS maintenance training (Cleaning of ion source)	1	
101	9825T05085613	Two years extended warranty for GC-MS	1	
102	9825T05040538	Autoinjector tower, GC-MS	1	

Item Nr	ICN NUMBER	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)
		replacement module		
103	6640T05048794	Column Nut 1.2mm, MSD interface, 2/pack	1	
104	6640T05048795	Column Nut, GC Inlet interface, 2/pack	1	
105	6640T05082079	Carrier Gas filter	1	

- Required by: **DIVISION: Detective and Forensic Services**
- At: **EASTERN CAPE FORENSIC LABS AS PER ADDRESS LIST IN SPECIFICATION**

- COUNTRY OF MANUFACTURE
.....

Brand and model
.....

- Does the offer comply with the specification(s)? *YES/NO
- If not to specification, indicate deviation(s)
- Period required for delivery
*Delivery: Firm/not firm

- Delivery basis
.....

Note: All delivery costs must be included in the bid price, for delivery at the prescribed destination.

** "all applicable taxes" includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

*Delete if not applicable

PRICING SCHEDULE – FIRM PRICES (PURCHASES)

NOTE: ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

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Name of bidder.....	Bid number 19/1/9/33TD (23)
Closing Time 11:00	Closing date: 2023-10-04

OFFER TO BE VALID FOR 90 DAYS FROM THE CLOSING DATE OF BID.

Item Nr	ICN NUMBER	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)
106	9825T05084342	Supply, Delivery and Commissioning of GC-MS instruments	1	
107	9825T05085609	Supply of firmware and software for GC-MS	1	
108	9825T05085377	Supply of workstations (PC Laptop)	1	
109	9825T05085379	Supply of printer	1	
110	9825T05085378	Supply of reference libraries	1	
111	9825T05083985	Supply and installation of Anti-Virus protection for analytical instruments data workstations	1	
112	9825T05085385	Supply of Certified Reference Material	1	
113	9825T05085610	Supply, Delivery and Installation of Uninterruptible Power Supply (UPS)	1	
114	9825T05085608	Supply and Installation of gas lines for instruments	1	
115	9825T05085604	Training for GC-MS instruments	1	
116	9825T05085451	Licensing fees for software	1	

Item Nr	ICN NUMBER	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)
117	9825T05085611	Validation of software for GC-MS	1	
118	9825T05085386	System validation-Installation Qualification, Operational Qualification and Performance Verification (IQ/OQ/PV)	1	
119	9825T05085376	Specialised support service, validation and verification	1	
120	9825T05085605	Maintenance and repairs for GC-MS instrument	1	
121	9825T05030161	Service, Maintenance and repairs of instrument printer	1	
122	9825T05083995	Service and maintenance of gas lines	1	
123	9825T05083987	Major service with calibration for GC-MS (OQ-PV)	1	
124	9825T05083988	Minor service for GC-MS instruments: Functional Verification (FV)	1	
125	9825T05084011	Replacement of batteries for instrument UPS system	1	
126	9825T05083998	Labour hours for specialised instrument support	1	
127	9825T05084004	Labour hours for major ad-hoc maintenance of GC-MS instruments	1	
128	9825T05083999	Labour hours for minor ad-hoc maintenance of GC-MS instruments	1	
129	9825T05084010	Service of instrument UPS system	1	
130	9825T05083976	Upgrade GC-MS firmware and software.	1	
131	9825T05083980	Upgrade of GC-MS workstations (PC /Laptop)	1	
132	9825T05084975	Update/upgrade of electronic reference libraries, GC-MS	1	
133	9825T05083986	Licensing fees for software upgrade	1	
134	6640T05085607	GC-MS tool kit	1	
135	9825T05085606	Additional GC-MS maintenance training (Cleaning of ion source)	1	
136	9825T05085613	Two years extended warranty for GC-MS	1	
137	9825T05040538	Autoinjector tower, GC-MS	1	

Item Nr	ICN NUMBER	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)
		replacement module		
138	6640T05048794	Column Nut 1.2mm, MSD interface, 2/pack	1	
139	6640T05048795	Column Nut, GC Inlet interface, 2/pack	1	
140	6640T05082079	Carrier Gas filter	1	

- Required by: **DIVISION: Detective and Forensic Services**
- At: **WESTERN CAPE FORENSIC LABS AS PER ADDRESS LIST IN SPECIFICATION**

- COUNTRY OF MANUFACTURE

Brand and model

- Does the offer comply with the specification(s)? *YES/NO

- If not to specification, indicate deviation(s)

- Period required for delivery
*Delivery: Firm/not firm

- Delivery basis

Note: All delivery costs must be included in the bid price, for delivery at the prescribed destination.

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*Delete if not applicable

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state? **YES/NO**

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

2.2 Do you, or any person connected with the bidder, have a relationship

¹ the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

with any person who is employed by the procuring institution? YES/NO

2.2.1 If so, furnish particulars:

.....
.....

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? YES/NO

2.3.1 If so, furnish particulars:

.....
.....

3 DECLARATION

I, the undersigned,
(name)..... in
submitting the accompanying bid, do hereby make the following
statements that I certify to be true and complete in every respect:

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium² will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring

² Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

This document must be signed and submitted together with your bid

THE NATIONAL INDUSTRIAL PARTICIPATION PROGRAMME

INTRODUCTION

The National Industrial Participation (NIP) Programme, which is applicable to all government procurement contracts that have an imported content, became effective on the 1 September 1996. The NIP policy and guidelines were fully endorsed by Cabinet on 30 April 1997. In terms of the Cabinet decision, all state and parastatal purchases/lease contracts (for goods, works and services) entered into after this date, are subject to the NIP requirements. NIP is obligatory and therefore must be complied with. The Industrial Participation Secretariat (IPS) of the Department of Trade and Industry (DTI) is charged with the responsibility of administering the programme.

1. PILLARS OF THE PROGRAMME

- 1.1. The NIP obligation is benchmarked on the imported content of the contract. Any contract having an imported content equal to or exceeding US\$ 10 million or other currency equivalent to US\$ 10 million will have a NIP obligation. This threshold of US\$ 10 million can be reached as follows:
 - (a) Any single contract with imported content exceeding US\$10 million.
or
 - (b) Multiple contracts for the same goods, works or services each with imported content exceeding US\$3 million awarded to one seller over a 2 year period which in total exceeds US\$10 million.
or
 - (c) A contract with a renewable option clause, where should the option be exercised the total value of the imported content will exceed US\$10 million.
or
 - (d) Multiple suppliers of the same goods, works or services under the same contract, where the value of the imported content of each allocation is equal to or exceeds US\$ 3 million worth of goods, works or services to the same government institution, which in total over a two (2) year period exceeds US\$10 million.
- 1.2. The NIP obligation applicable to suppliers in respect of sub-paragraphs 1.1 (a) to 1.1 (c) above will amount to 30% of the imported content whilst suppliers in respect of paragraph 1.1 (d) shall incur 30% of the total NIP obligation on a *pro-rata* basis.
- 1.3. To satisfy the NIP obligation, the DTI would negotiate and conclude agreements such as investments, joint ventures, sub-contracting, licensee production, export promotion, sourcing arrangements and research and development (R&D) with partners or suppliers.
- 1.4. A period of seven years has been identified as the time frame within which to discharge the obligation.

2. REQUIREMENTS OF THE DEPARTMENT OF TRADE AND INDUSTRY

- 2.1. In order to ensure effective implementation of the programme, successful bidders (contractors) are required to, immediately after the award of a contract that is in excess of **R10 million** (ten million Rands), submit details of such a contract to the DTI for reporting purposes.
- 2.2. The purpose for reporting details of contracts in excess of the amount of R10 million (ten million Rands) is to cater for multiple contracts for the same goods, works or services; renewable contracts and multiple suppliers for the same goods, works or services under the same contract as provided for in paragraphs 1.1 (b) to 1.1 (d) above.

3. BID SUBMISSION AND CONTRACT REPORTING REQUIREMENTS OF BIDDERS AND SUCCESSFUL BIDDERS (CONTRACTORS)

- 3.1. Bidders are required to sign and submit this Standard Bidding Document (SBD 5) together with the bid on the closing date and time.
- 3.2. In order to accommodate multiple contracts for the same goods, works or services; renewable contracts and multiple suppliers for the same goods, works or services under the same contract as indicated in sub-paragraphs 1.1 (b) to 1.1 (d) above and to enable the DTI in determining the NIP obligation, successful bidders (contractors) are required, immediately after being officially notified about any successful bid with a value in excess of R10 million (ten million Rands), to contact and furnish the DTI with the following information:

- Bid/contract number.
- Description of the goods, works or services.
- Date on which the contract was accepted.
- Name, address and contact details of the government institution.
- Value of the contract.
- Imported content of the contract, if possible.

- 3.3. The information required in paragraph 3.2 above must be sent to the Department of Trade and Industry, Private Bag X84, Pretoria, 0001, for the attention of Mr Elias Malapane within five (5) working days after award of the contract. Mr Malapane may be contacted on telephone (012) 394 1401, facsimile (012) 394 2401 or e-mail at Elias@thedi.gov.za for further details about the programme.

4. PROCESS TO SATISFY THE NIP OBLIGATION

- 4.1. Once the successful bidder (contractor) has made contact with and furnished the DTI with the information required, the following steps will be followed:
 - a. the contractor and the DTI will determine the NIP obligation;
 - b. the contractor and the DTI will sign the NIP obligation agreement;
 - c. the contractor will submit a performance guarantee to the DTI;
 - d. the contractor will submit a business concept for consideration and approval by the DTI;
 - e. upon approval of the business concept by the DTI, the contractor will submit detailed business plans outlining the business concepts;

- f. the contractor will implement the business plans; and
- g. the contractor will submit bi-annual progress reports on approved plans to the DTI.

4.2. The NIP obligation agreement is between the DTI and the successful bidder (contractor) and, therefore, does not involve the purchasing institution.

Bid number: Closing date:

Name of bidder:

Postal address:

.....
Signature: Name (in print):

Date:

**PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL
PROCUREMENT REGULATIONS 2022**

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and

1.2 **To be completed by the organ of state**
(delete whichever is not applicable for this tender).

- a) The applicable preference point system for this tender is the **80/20** preference point system.
- b) The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

1.4 **To be completed by the organ of state:**

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) “**tender**” means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) “**price**” means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) “**rand value**” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) “**tender for income-generating contracts**” means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) “**the Act**” means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20

$$Ps = 80 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right) \quad \text{Type equation here.}$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

- an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
- any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Persons historically disadvantaged on the basis of race with at least 51% ownership	5 points	
Persons historically disadvantaged on the basis of gender with at least 51% ownership by woman	5 points	
Persons with at least 51% ownership who are youth	5 points	
Persons historically disadvantaged by unfair discrimination on the basis of disability with at least 51% ownership	5 points	

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. **TYPE OF COMPANY/ FIRM**

Partnership/Joint Venture / Consortium
 One-person business/sole property
 Close corporation
 Public Company

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- Personal Liability Company
- (Pty) Limited
- Non-Profit Company
- State Owned Company

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ADDRESS:

BID SPECIFICATION FOR THE SUPPLY, COMMISSIONING AND TRAINING OF GAS CHROMATOGRAPH - MASS SPECTROMETER (GC-MS) INSTRUMENTS FOR THREE YEARS AT THE FORENSIC SCIENCE LABORATORY INCLUDING SERVICE AND MAINTENANCE AGREEMENT: SECTION CHEMISTRY: GAUTENG (PRETORIA), KWAZULU-NATAL (AMANZIMTOTI), EASTERN CAPE (GQEBERHA) AND WESTERN CAPE (PLATTEKLOOF)

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1.1 Introduction

1.1.1 Scope of the requirements

1.1.1.1 The Section Chemistry has identified the need for replacement of GC-MS systems that have been in service more than 12 years. The instruments will be phased out and replaced over a 3 year period and a service provider for the new instruments over the entire timeframe is required.

1.2 Document Layout

This document is divided into two (2) sections:

1.2.1 Section A: General Technical Requirements

This includes the general technical requirements regarding the purchases that are required.

1.2.2 Section B: Bidder requirements and Bidder Responsibilities

This includes all the system specifications and the additional responsibilities of the bidder e.g. Training and Support

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Section A: General Technical Requirements

Note: The Bidder needs to confirm compliance to requirements contained in this section by indicating Comply/Do not comply in the relevant column. Non-compliance to Mandatory requirements will result in immediate disqualification. Failure to enter Comply/Do not comply will be interpreted as non-compliance and will be disqualified. (Also do not put a Yes/ No/ ✓/ ✗).

Table 1: General Technical Requirements

No	Description	COMPLY/DO NOT COMPLY
1.	General summary requirements of the instrument	
1.1	The Chemistry Section of the Forensic Science Laboratory (FSL), SAPS, requires the supply and installation of integrated Gas Chromatograph- Mass Spectrometer (GC-MS) instruments for the Chemistry Section of the FSL in Pretoria, Cape Town, Gqeberha and Amanzimtoti over a three (3) year period.	
1.2	The GC-MS instruments are primarily required for routine drug of abuse identification and for rapid forensic analysis of narcotic, harmful and flammable substances. The required instrument must be robust and be suitable to be used continually for 24 hours per day, 7 days a week without any problems.	
1.3	The support, by experienced service personnel, must be readily available nationally. A factory trained service engineer must be able to be on-site to repair the problem or address the issue within three (3) working days of the service request made to the supplier.	
1.4	The installation, service and maintenance personnel must be factory trained engineers and written proof from the manufacturer confirming this must be handed in as part of bid documentation. A minimum of 4 service engineers must be available to service FSL nationally. Details of relevant qualifications and experience of the locally available service personnel on the specified system must be provided with this bid reply. Service technicians must be able to perform applications, hardware, software and maintenance.	

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1.5	Due to the extreme productivity demand it is essential that efficient support for the lifetime of the equipment, which is expected to be at least 10 years, must be readily provided by the supplier.	
1.6	All specified items are purchased as needed over the 3 year period and it is expected that 8 systems in total will be required, spread among different sites. The relevant agreement regarding support and maintenance must be valid for a period of three (3) years from purchase of an instrument. Quantities are not guaranteed but estimated to be minimum 8 systems.	
1.7	The products offered must have a useful and fully supported life of at least ten (10) years after commissioning. The bidder must provide a written statement from the original instrument manufacturer confirming this and handed in as part of the bid documentation. The supplier commits to supplying original parts and will endeavor to keep the instrument operational for the full period.	
1.8	Bid pricing including VAT must be provided for supply, commissioning and training as well as service and maintenance as per bid pricing schedule. Delivery must be included to all sites.	
1.9	A scheduled, compulsory briefing session must be attended by prospective bidders in order to familiarise the client with individual product capabilities. Failure to attend these meetings will disqualify a bidder.	
1.10	A brochure or documents stating technical specifications of products on offer must be submitted with bid documents.	

Section B: Bidder requirements

Note: The Bidder needs to confirm compliance to requirements contained in this section by indicating Comply/Do not comply in the relevant column. Non-compliance to Mandatory requirements will result in immediate disqualification. Failure to enter Comply/Do not comply will be interpreted as non-compliance and will be disqualified. (Also do not put a Yes/ No/ ✓/ ✗).

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Table 2: Bidder Responsibilities

The Bidder shall be responsible for supplying the following:		COMPLY /DO NOT COMPLY
2.	Gas Chromatograph	
2.1	GC control:	
2.1.1	The GC must be microprocessor-controlled and must be fully integrated with the MS- and data system software.	
2.1.2	Concurrent access to all GC temperature, pressure parameters and programs under data system control must be possible through the keyboard and alphanumeric LED (Light Emitting Diode) display array of the GC. All set points, functions, error messages, diagnostics and GC messages must be indicated on the GC and alphanumeric LED display array.	
2.2	A self-diagnostic program that will enable the following continuous diagnostic checks:	
2.2.1	A built-in timer that acts as a stopwatch, run time indicator and lapsed time indicator	
2.2.2	Analysis method/s to include injector, column, oven and autosampler parameters.	
2.3	All injector parameters; including:	
2.3.1	Split ratios, timing and duration.	
2.3.2	Inlet pressure, back-pressure and flows.	
2.3.3	Temperature.	
2.4	All column parameters, including:	
2.4.1	Column dimensions	
2.4.2	The GC and data system should allow for column dimensions to be recalculated.	
2.4.3	All flows and pressures.	

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The Bidder shall be responsible for supplying the following:		COMPLY /DO NOT COMPLY
2.5	The Gas Chromatograph must have ambient temperature and pressure compensation feedback for electronic pneumatic control for all inlets and detectors.	
2.6	The Gas Chromatograph must have a 3 channel module of auxiliary EPC (Electronic Pneumatic Control) to be used for flow control of external sampling devices OPTIONALLY available.	
2.7	The Gas Chromatograph must have a Gas Phase micro fluidics capability to provide automated Dean's Switching, effluent splitting between the mass spectrometer and another detector or the ability to change the column without venting the mass spectrometer OPTIONALLY available.	
2.8	The Gas Chromatograph must have a hydrogen safety shutdown system that monitors the hydrogen flow and shuts down the gas flows and heaters if a leak is detected. The Gas Chromatograph should have oven explosion protection built into the oven door. The Mass Spectrometer analyzer should not fragment in the event of a hydrogen deflagration.	
2.9	All oven parameters must be accessible and programmable; including:	
2.9.1	Must have an oven temperature programming capability with at least twenty/twenty one temperature ramps (negative ramps are allowed) and intermediate isothermal segments.	
2.10	All autosampler parameters must be accessible and programmable; including:	
2.10.1	Vial location.	
2.10.2	Syringe wash routine, including solvent reservoirs and number of rinses.	
2.10.3	Sample pump, pull-up speed and volume.	
2.10.4	Hot needle injection and sample injection speed.	
2.11	Built-in clock time programming must be available. Programmable operations must include loading of methods and sequences, start of analysis or sequence of analysis and performing blank or column compensation runs at programmed clock times.	

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The Bidder shall be responsible for supplying the following:		COMPLY /DO NOT COMPLY
2.12	The GC must incorporate a run time log to report any deviations from the method during a run, including user-initiated changes or failures in set point control of parameters or changes to instrument conditions, e.g. Opening of the oven door. The run log records must be accessible from the GC-keyboard or the data system file and must include the time and date of an occurrence. It must be simple to prove whether any such changes to instrument conditions occurred while specific samples were being analysed on the instrument, based on the specific file names of samples analysed and not only the instrument time.	
2.13	The instrument must have an inherent counter of total number of system analyses which cannot be reset by the user and is not data system based.	
2.14	The GC must be equipped with a start switch to allow the start of the injector and GC programs, as well as the MS programs and data acquisition upon injection of the sample.	
2.15	All carrier gas lines must be equipped with electronic pressure or flow controllers.	
2.16	All gas flows and pneumatics must be electronically regulated, e.g. By using Electronic Pneumatic Control (EPC). The EPC must be able to be controlled from the GC system and by the data system, allowing the gas flows and pressures in the gas-lines, including the column, to be programmable features. The electronic pneumatic control system must be able to operate in manners allowing for:	
2.16.1	Electronic vacuum compensation for GC/MS	
2.16.2	Electronic programmable pressure regulation	
2.16.3	Electronic programmable flow regulation	
2.16.4	Electronic constant pressure regulation	
2.16.5	Electronic constant flow regulation	
2.16.6	Electronic split ratio control	
2.16.7	Compensation for barometric pressure and ambient temperature changes is standard so that methods at sea level and high elevations give the same results.	

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The Bidder shall be responsible for supplying the following:		COMPLY/DO NOT COMPLY
2.17	The gas piping, plumbing, sensor, valves and controllers for a second injector port must be pre-fitted.	
2.18	All the required high purity gas lines and gas manifolds for operation must be included and installed to enable GC operation, including servicing and leak checks on annual basis.	
2.19	Suitable high purity gas regulators must be supplied and are subject to approval before installation	
3.	The Injection Port	
3.1	The installed injection ports must be a split/splitless injector for capillary operation able to supply up to at least 600 KPa constant pressure.	
3.2	The data system must control the capillary split/splitless valve and divert valve.	
3.3	The data system must control regulation and measurement of forward and back pressure on the capillary inlet.	
3.4	The injection port must be situated in its own heated zone and temperature must be programmable by the data system adjustable from ambient to 400°C in 1°C increments.	
3.5	All gas flows and pneumatics must be electronically regulated by EPC. The EPC must be able to be controlled from the GC system and by the data system, allowing the following capabilities as programmable features:	
3.5.1	Vacuum compensation for GC-MS.	
3.5.2	Electronic split ratio control, adaptable from 1:1 to 300:1	
3.5.2.1	Pre-injection switch to split/splitless status.	
3.5.2.2	Split flow at 3 different flow rates for 3 different start-times for 3 different durations.	
3.5.3	Constant and ramped column flow; 0 to 3 ml/minute in 0.05 ml/minute increments.	

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NO	The Bidder shall be responsible for supplying the following:	COMPLY /DO NOT COMPLY
3.5.4	Constant and ramped column Pressure; 0 to 700 KPa, in 1 KPa increments (must be able to maintain 600 KPa constant pressure on the column).	
3.6	The injector must allow for constant or pulsed injection, of which:	
3.6.1	The pressure will be specifiable in 1 KPa increments.	
3.6.2	The duration will be specifiable from 0 to 3 minutes, in at least 1s increments.	
3.7	The system must allow the use of any capillary columns with internal diameters from 0.10mm to 0.53mm ID (Internal Diameter).	
3.8	The injector must be equipped with ultra-low bleed, ultra-high capacity (at least 2000 autosampler injections) seals, suitable for mass spectrometry, to eliminate the necessity of regularly replacing septa.	
4.	The Oven	
4.1	The GC oven door must allow easy access to the oven to ensure easy injector port maintenance and column installation.	
4.2	Oven temperature from 4°C to 450°C.	
4.3	Oven cooling time from 280°C to 30°C must be less than five (5) minutes at 21°C ambient temperature.	
4.4	The oven ramping rate must be adjustable between 0°C/min up to at least 60°C/min in minimum increments of 1°C/min. The oven ramp rate must be stable and well controlled over the complete temperature range from 40°C to 450°C.	
4.5	The oven must have a temperature programming capability with at least 20 temperature ramps and intermediate isothermal segments (negative ramps to be allowed).	
4.6	The operator must be capable of calibrating the GC oven temperature to +/- 0.1°C.	
4.7	The oven must be equipped with a facility that enables rapid cooling with liquid carbon dioxide. The bidder must provide and connect the relevant plumbing to the carbon dioxide source. A suitable filter must be installed in-line to prevent any solid material that may be in the cylinder from blocking the relevant lines.	

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The Bidder shall be responsible for supplying the following:		COMPLY /DO NOT COMPLY
4.8	Effective carbon dioxide cooling operation must be ensured for this and all other such GC-MS instrument from the specific supplier that may be at the relevant laboratory. If relevant, filters and installation thereof for this purpose shall be catered for.	
5.	General GC	
5.1	A complete maintenance manual set for the GC and injector, including complete gas flow diagrams, must be supplied.	
5.2	Tools for maintenance and repair of each instrument must be included.	
5.3	Gas line plumbing and gas regulators must be included in the bid as per site inspection.	
6.	Mass Spectrometer (MS)	
6.1	MS control:	
6.1.1	All parameters of the MS, including transfer line, ionisation source, lenses and pre-filters, quadrupole rods, detector and vacuum system, must be under data system control	
6.1.2	Display temperature settings and readings.	
6.2	Transfer Line	
6.2.1	The GC must be interfaced to the mass selective detector via a short direct coupling interface between the GC and the mass selective detector.	
6.2.2	The interface must not be longer than 150 mm, measured from the GC oven to the ionisation chamber.	
6.2.3	Must allow fused silica capillary columns to enter the ionisation chamber and terminate close to the ionisation beam.	
6.2.4	The interface must have its own heater and be independently heated and controlled between 100°C to 350 °C. The temperature control and display must be controlled by the workstation. Temperature control of the interface must thus be independent and under full data system as well as GC control from 100°C to 350°C.	

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The Bidder shall be responsible for supplying the following:		COMPLY /DO NOT COMPLY
6.2.5	Must be fully insulated to ensure stable and uniform temperature control across the length of the transfer line.	
6.3	Ionization Source	
6.3.1	The ion source must comply to the following:	
6.3.1.1	The ion source heater must be independently heatable with the temperature set points under full data system control ranging between 100°C and 250°C.	
6.3.2	The mass spectrometer must use an ion source where the metallic parts are constructed from inert material.	
6.3.3	An ion source suitable for Electron Impact type (EI) analysis must be supplied for the system.	
6.3.4	The ion source must be easily removable as an assembly for convenient cleaning.	
6.3.5	The filament emission current must be variable and must be able to be user-selectable from the data system via the data system software.	
6.3.6	The emission energy should be user-selectable from the data system via the data system software.	
6.3.7	The ion source of the electron impact type must have 2 independently selectable filaments to allow continued operation in the event of the failure of one of the filaments.	
6.3.8	It must be possible to change electronically between the two filaments without breaking the vacuum.	
6.3.9	It must not be necessary to remove the column when removing the ion source.	
6.4	Quadrupole Mass Analyzer	
6.4.1	The mass analyzer must be of a monolithic quartz structure integrating hyperbolic shaped quadrupole rods.	
6.4.2	The quadrupole is to have its electrode surfaces covered by suitably inert material, e.g. titanium composite and gold thin and thick films.	

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The Bidder shall be responsible for supplying the following:		COMPLY /DO NOT COMPLY
6.4.3	The system tunable lens(es) must separate the ion source and the mass analyzer to ensure high sensitivity for high mass ions and guard against mass analyzer contamination.	
6.4.4	If necessary to heat, the mass analyzer must be independently heatable at least over the range of 150°C to 300°C.	
6.4.5	The instrument must have a mass axis stability of at least +/-0.1 amu over 12 hours.	
6.4.6	The analyzer must have a mass range of 1 to 1000 amu, adjustable in 0.1 amu steps.	
6.4.7	Scan rates of up to 12500 amu/sec with 0.1 amu mass resolution (at least 8000 amu/sec written to disk).	
6.4.8	Selectable scan ranges from 1 to 1000 amu, selectable for at least 3 specifiable time windows in GC-MS analysis.	
6.4.9	The mass spectrometer must have an automated SIM setup that can convert a full scan method to a SIM or SIM/Scan method.	
6.4.10	The software must automatically configure the number of SIM groups, SIM cycles across the peak, and the ions added to each group.	
6.4.11	In the SIM mode, the detector must be able to:	
6.4.11.1	Monitor up to 20 individually-selected masses, with selectable dwell times for each mass in the range 10 to 100 ms.	
6.4.11.2	It must be possible to select at least 20 time windows of 20 ions in each GC-MS analysis.	
6.4.12	Must be possible to easily view the mass scans in real-time (i.e. without entering diagnostics or tune menus).	
6.4.13	The mass analyzer design must allow for routine maintenance (e.g. cleaning the ion source) without the removal of the analytical column for easy and quick maintenance.	

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The Bidder shall be responsible for supplying the following:		COMPLY /DO NOT COMPLY
6.5	Detector	
6.5.1	The detector must comply to the following specifications:	
6.5.1.1	The detector must be a Triple-Axis HED-Electron Multiplier or equivalent with extended lifetime	
6.5.1.2	The detector must be an electron or photo multiplier with an expected lifetime of minimum five years	
6.5.1.3	The detector must be situated off-axis to minimize noise.	
6.5.1.4	The data system must allow adjustment of the multiplier gain measurement after it has been established automatically or by tuning manually. The option of normalizing the gain during automatic tune so as to get consistent sensitivity and ion counts between multiple GC-MS systems of different ages must be present.	
6.5.1.5	The detector voltage must be able to be prescribed by the GC-MS analysis method.	
6.5.1.6	The mass spectrometer shall have an automatic interrupt system to provide protection against damage due to excess ion source pressure or electron multiplier output current, as well as filament or RFPA (Radio Frequency Power Amplifier) failure. Additionally, analyzer temperature zone and operating voltages shall be interlocked with vacuum pump speed to prevent instrument damage due to operation at excess pressure.	
6.5.1.7	The detector and the filament control must be able to be overridden manually during acquisition without termination of acquisition in order to protect the filament and detector.	
6.6	Calibration	
6.6.1	The system must have a mass calibration facility complying to the following specification:	
6.6.1.1	The reference compound glass reservoir must be connected to the instrument via a separate, independent inlet port.	
6.6.1.2	The reference compound solenoid valve must be under data system control.	

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The Bidder shall be responsible for supplying the following:		COMPLY /DO NOT COMPLY
6.6.1.3	The reference compound solenoid valve must close instantly in the event of a power failure in order to protect the system.	
6.6.1.4	Automatic tuning and mass calibration must be under data system control	
6.6.1.4.1	It must be possible to specify the tuning file to be used, for GC-MS analysis.	
6.6.1.4.2	It must be possible to save tuning files under user-generated file directories and file names as well as to reload these parameters when necessary.	
6.6.1.5	The calibration liquid reservoir and vent valve must be easily accessible.	
6.6.1.6	The calibration compound e.g. PFTBA used by the system must comply with international standards in terms of traceability to National Measuring Institutes. Certificate of Analysis must be provided with installation stating the relevant measurement uncertainty and methods utilized in qualification of compound.	
6.7	Vacuum System	
6.7.1	The vacuum system must exist of a rough pump and a diffusion pump.	
6.7.2	The status of vacuum system must be observable through the data system	
6.7.2.1	A high-vacuum gauge must be installed to accurately read high-vacuum values.	
6.7.2.2	The data system must automatically warn users of poor vacuum status.	
6.7.2.3	The MS must not permit scanning if the vacuum is not sufficient.	
6.7.2.4	The vacuum value (e.g. mTorr) must be readable electronically for both vacuum pumps independently.	
6.7.3	The diffusion pump must have a capacity of at least 65 l/s capable of handling analytical flow rates of at least up to 1.5 ml/minute.	
6.7.4	An anti-pass back system to prevent back-flushing of pump oil must automatically activate in case of power or vacuum failure to protect the system.	

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The Bidder shall be responsible for supplying the following:		COMPLY /DO NOT COMPLY
6.7.5	The instrument must allow pumping to be continued when electronics are serviced.	
6.7.6	An ion gauge must be included to enable the vacuum in the vicinity of the ion source to be determined.	
6.8	General Mass Spectrometer	
6.8.1	A complete spare set of consumable items such as two additional seals, washers, insulators, calibration compound etc. must be included upon delivery.	
6.8.2	A complete set of service, operating, maintenance, training and software manuals must be supplied.	
6.8.3	The first cleaning of the mass analysis system (after the system has proven to run to specifications) must be included and serve as additional maintenance training.	
7.	GC-MS System Performance	
7.1	The sensitivity of the mass spectrometer must be tested on commissioning such that splitless injection of:	
7.1.1	1,0 ul injection of 1 pg/ul of Octafluoronaphthalene must yield a signal-to-noise ratio of at least 300:1 RMS of the extracted ion signal of the molecular ion 272 amu when continuously scanning EI from 50 to 300 amu with Helium and with Hydrogen 50:1 (with a Diffusion System).	
7.1.2	1,0 ul injection of a 20 fg of Octafluoronaphthalene must yield a signal-to-noise ratio of better than 10:1 RMS of 272 amu if scanning EI SIM.	
7.2	It must be the supplier's responsibility to supply the samples required for proving the compliance of the system to these specifications.	
7.3	The FSL quality management system includes a system suitability test (criteria available) which is aimed at evaluating and comparing the chromatography and mass spectroscopy of a GC-MS instrument. It is routinely required for the instrument to be evaluated and to pass the relevant criteria in order to be utilized for operational work. It is essential that the purchased instrument is able to achieve the relevant criteria with minimal effort and analysis of relevant standards performed during commissioning.	

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The Bidder shall be responsible for supplying the following:		COMPLY /DO NOT COMPLY
7.4	The instrument must produce mass spectra with relative ion intensity and isotope ratios for Decafluorotriphenylphosphine (DFTPP) as specified in the FSL QMS GC-MS instrument Suitability procedure (based on the criteria specified in the U.S.E.P.A. method 8270) without necessitating any user adjustment to the instrument or use of any procedure other than the standard automatic tuning and mass calibration routines. No artificial adjustment of the mass spectra must be required by the user. This requirement is critical and if the instrument is practically found not to meet this specification, the client would be forced to consider the next bided system.	
7.5	Chromatography criteria must be achievable according to the specified criteria (information available on request).	
7.6	Meeting the instrument suitability requirements is required at installation as well as for the full lifetime of the instrument. Detail with regards to the criteria as well as the relevant test sample(s), e.g. DFTPP, can be obtained from the client on request.	
7.7	It is a requirement that the instrument must be proven to pass these criteria after installation and after every time a service technician has worked on the system, including service, source clean or repairs to the system.	
8.	Autosampler	
8.1	An autosampler which integrates fully with the GC-MS and which is under full GC-MS software control must be included.	
8.2	The autosampler must be electrically operated with no pneumatics.	
8.3	The autosampler tray shall allow for fully integrated barcode reader to allow reading of vial barcode labels. Allows for fully programmable single vial heating (35°C to 80°C) and mixing prior to injection. Allows for bidirectional mixing up to 4000 RPM.	
8.4	The autosampler tray must have the capacity for at least 150 vials (approximately 2ml each).	
8.5	The autosample tray must have removable tray racks e.g. 5 x 10 (50 vials) providing the ability to remove tray racks for adding additional samples without interrupting the sampler while running a sequence.	
8.6	The autosampler injector must be auto-aligning and able to be installed or removed without the use of tools.	

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The Bidder shall be responsible for supplying the following:		COMPLY /DO NOT COMPLY
8.7	The autosampler syringes must be available in sizes to permit autosampler injections ranging from 0.2 μ l to 2 μ l in 0.2 μ l increments.	
8.8	Sample carry-over must not exceed 0,005 %.	
8.9	Sensors must provide warning in case of incorrect mounting or alignment of the autosampler to protect the syringe needle.	
8.10	The autosampler must have a quick disconnect mounting to be easily removed without disconnecting electrical and gas connections thereby allowing for easy access for manual injections and injection port maintenance.	
8.11	All autosampler operating parameters must be controlled directly from the GC-MS data system as part of an analysis method:	
8.11.1	All autosampler vials must be directly randomly accessible.	
8.11.2	On-column (temperature programmable) injection for standard capillary columns must be an on- site upgradeable option, for direct injection onto 250, 320 and 530um columns, without the need for a separate retention gap or mega bore column.	
8.11.3	Solvent syringe wash with a choice of at least six different solvent reservoirs, must be possible	
8.11.3.1	The washes must be specifiable from either, or both, solvent reservoirs.	
8.11.3.2	A number of pre-injection washes, specifiable from 0 to 15 per solvent reservoir, must be available.	
8.11.3.3	A number of post-injection washes, specifiable from 0 to 15 per solvent reservoir, must be available.	
8.11.4	The needle depths must be variable from 20 - 90 % of autosampler vial depth.	
8.12	User definable sandwich injections with up to 3 layers of additional liquid or an air gap for each layer.	
8.13	A solvent plug or air plug, specifiable in volume and solvent reservoir, must be possible.	
8.14	The choice of different sample pull-up speeds must be available.	

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The Bidder shall be responsible for supplying the following:		COMPLY /DO NOT COMPLY
8.15	Hot needle injection must be possible.	
8.16	Needle residence time must be specifiable.	
8.17	The choice of different injection speeds must be available, e.g. fast injection (100ms) and slow injection (500ms).	
8.18	It must be impossible for the autosampler to inject a sample from any sample tray position other than that specified in the analysis list for the specific analysis.	
8.19	The system, when equipped with optional extras (e.g. two towers, a tray) must be able to perform on-line liquid manipulation including solvent addition, standard addition, dilution, derivatization and quenching.	
8.20	One additional fully operational autoinjector system must be provided as spare component with the purchase of the first system for a regional laboratory in the three year time period.	
9.	Software Requirement	
9.1	Must utilize a multi-tasking software (foreground and background) allowing tasks such as data analysis, library searching, spectral analysis, quantification or the printing and editing of reports to be performed in the foreground with simultaneous data acquisition in the background mode.	
9.2	Must utilize a menu-driven user interface for total control of the entire GC-MS instrument (including autosampler).	
9.3	Must utilize a high-resolution, multiple-colour graphic package and a complete, enhanced set of chromatogram and spectrum display programs and quantification routines.	
9.4	Must utilize an interactive keyboard and pointer device (mouse).	
9.5	Must include an on-screen detailed help facility, which can be activated at any time to obtain more detailed information about all application software programs.	
9.6	Must permit instant switching between application program packages.	

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The Bidder shall be responsible for supplying the following:		COMPLY /DO NOT COMPLY
9.7	Must include printer driver commands for all windows of the GC\Interface\MS software package.	
9.8	Must include the facility of displaying from 0 up to at least five (5) separate extracted mass fragment chromatograms with or without the total ion chromatogram on a single easily printable screen normalized over the same scan range. This must be very simple to achieve and must be able to keep the last set parameters.	
9.9	Terminal operation must not be blocked while printing.	
9.10	Must permit user-programmable fully automated routines, including tuning, mass-calibration, qualitative and quantitative analysis of samples and printing of results and data through simple data system commands.	
9.11	Must include the automatic storing of all data acquisition (method) and tuning parameters for each data acquisition file. Above-mentioned parameters must be non-editable.	
9.12	The data processing software must provide post run treatment of data using the mouse and other Windows features.	
9.13	For data file security, data files must not be editable.	
9.14	While a data file is being acquired, it must be possible, on the file being acquired, to do manipulation and evaluation of the data as well as library searches on the mass spectra acquired without ever allowing changes to the raw collected data.	
9.15	The software must include a retrieval system where all library entries may be searched by Chemical Abstract Number, Molecular Weight, Molecular Formula and Library Entry Number.	
9.16	The software must be able to perform the following on the sequence:	
9.16.1	It must be possible to edit (i.e. add on to) the analysis sequence in process and editing must be traceable in log files.	
9.16.2	It must be possible to queue analysis sequences to be analysed.	
9.16.3	It must be possible to import analysis sequences, for instance from a table in a spreadsheet, e.g. Excel.	