

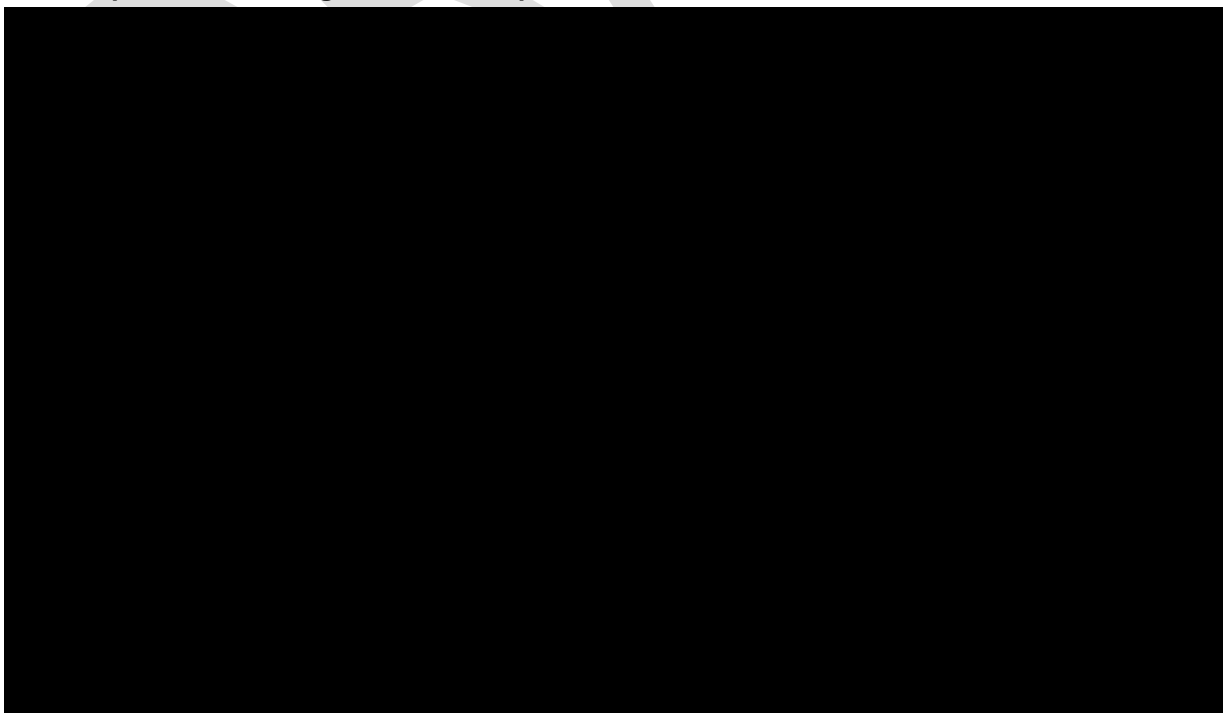
Annex 1 to Schedule 2

STATEMENT OF REQUIREMENTS – Contract Number PA0000000682

1. Nuclear Magnetic Resonance (NMR) spectroscopy constitutes a vital part of analytical capability at Dstl. [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]
2. [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]
- [REDACTED]  
[REDACTED]
- [REDACTED]  
[REDACTED]
5. The Contractor will provide comprehensive training on the upgraded systems for DSTL personnel.
6. The Contractor will provide the continuous and comprehensive support to the systems covering both existing magnets and probes / resonators as well as the new components.
  - 6.1. [REDACTED]
  - 6.2. [REDACTED]
  - 6.3. [REDACTED]

**Specifications**

7. **Part A and D: Specification for compatible electronic console replacement of existing Bruker 400 MHz Wide-bore NMR spectrometer, and standalone para-hydrogen generator to be coupled with existing Bruker NMR spectrometers**



7.6. The full specification for each individual component for this system is as per the [REDACTED]

**8. Part B: Compatible electronic console replacement of existing Bruker 600 MHz NMR spectrometer**

[REDACTED]

8.5. The full specification for each individual component for this system is as per the [REDACTED]

**9. Part C: 60 position sampleCase sample changer to be compatible with AVHD console/400 MHz Bruker spectrometer.**

[REDACTED]

9.2. The full specification for each individual component for this system is as per the [REDACTED]

**Commissioning / Validation / Testing / Acceptance**

10. The Contractor will ensure the system is functioning satisfactorily and passes their predefined installation criteria. Bruker Acceptance tests are defined in 'Bruker Test Procedures for Avance NMR Systems with "Topspin Version 3.5 pl 3+" Software version 020' manual.
11. The upgraded equipment and any parts provided will be fully tested and commissioned by the Contractor. On installation/commissioning, the Dstl Technical Lead will then confirm acceptance for the final deliverable for each item against the following criteria:
  - 11.1. the installed instruments are operating fully with the re-used components where applicable;
  - 11.2. Performance tests of existing probeheads, resonators are on a best endeavour basis and are excluded from the new Bruker NMR console/ hardware acceptance. If existing faults are discovered on re-used components these will be repaired in accordance with an existing service agreement.

**Delivery Date(s)**

12. [REDACTED]
  - 12.1. 400WB NMR console - Should be ready to deliver by [REDACTED]  
[REDACTED]  
[REDACTED]
  - 12.2. Para-hydrogen generator to be delivered with the 400WB NMR console;
  - 12.3. [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

**Service Requirements**

13. All servicing and support will be performed by UK-based manufacturer qualified engineers, from point of delivery for each set of instrumentation (as specified above and including any re-used components from the previous system).

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14. Support will be [REDACTED] Schedule of Requirements Table I – Contractor Deliverables, Items 4.1 and 4.2.
15. Support provided by the Contractor as per the procedures and terms below ('Complete Plan - less Helium supply and filling'):
- 15.1. In the event of a catastrophic loss of the magnetic field (quench) the Contractor's personnel will:
- 15.1.1. make an Initial Attempt;
  - 15.1.2. If necessary the magnet will be vacuum pumped (the equipment will be provided by the Contractor) and cooled to operating temperature by the Contractor's personnel. The liquid helium required for this process IS included. The liquid nitrogen and gas helium is NOT included.
  - 15.1.3. energise and shim or cryo-shim the magnet to specification;
  - 15.1.4. will room temperature shim all Contractor manufactured probes covered under these terms and conditions to the contractor's standard proton line-shape specification.
  - 15.1.5. If requested, room temperature shimming for additional Contractor manufactured probes can be provided at normal service rates.
- 15.2. In the case of a Catastrophic Magnet Fault:
- 15.2.1. Where the instrument has always been covered by the Contractor's Complete plan that has followed seamlessly after a warranty expiry, or expiry of preceding Complete plan, the Contractor will repair or replace the magnet with a model of equivalent specifications and carry all the costs related to reinstatement of the hardware including, without limitation, travel and labour. For the avoidance of doubt this paragraph includes 'Complete Plan - Less Helium supply and filling' and the existing magnets at DSTL currently meet the continuous cover criteria.
  - 15.2.2. Where the instrument has not had unbroken Complete plan cover following warranty expiry, the Contractor will cover the magnet up to its time value, based on an expected magnet lifetime of 20 years.
  - 15.2.3. Costs due to inaccessibility of the installation location to replace the system are explicitly excluded. For clarity, an example would be where walls need to be removed and then rebuilt.

**Planned Maintenance**

- 15.3. The Contractor will provide Planned Maintenance as described in the Contractor's maintenance documentation, to include:
- 15.3.1. All parts, site visits and labour and travel costs related to hardware failure;  
[REDACTED]
  - 15.3.4. Support of the system by Contractor trained service engineers
  - 15.3.5. Software and data system up-to-date and fully optimized;
  - 15.3.6. Annual Cryoplatfrom servicing.
  - 15.3.7. Existing room temperature probehead.
- 15.4. The Contractor will:
- 15.4.1. Maintain a system to track the Planned Maintenance visits due for the instrument;
  - 15.4.2. Inform DSTL of the approximate schedule for the visits;
  - 15.4.3. Review the results of each planned maintenance visit with the primary user (DSTL Technical Lead) of the covered instrument;

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- 15.4.4. File the results of each Planned Maintenance visit in the instrument log.
- 15.4.5. Make available the operation qualification and full test reports to DSTL;
- 15.4.6. assist in installing the appropriate software that applies to DSTL's configuration;
- 15.4.7. Install the appropriate firmware updates as required;
- 15.4.8. Repairs can be performed at the same time as the maintenance if both parties agree to do so.

**Repairs and response**

- 15.5. Where possible, the Contractor will provide support from their technical response facility at the contractor's premises. The Contractor will provide all on-site service support as necessary.
- 15.6. The contractor will ensure DSTL receives qualified remote desktop support as soon as possible after a request for support has been made and an initial investigation over telephone or email has not resolved the issues.
  - 15.6.1. The Contractor will continually verify the connection between the instrument and the Contractor's server. If no connection can be established, DSTL shall be informed based on the defined Customer contact list.
- 15.7. The Contractor Service Response process is as follows (Contractor's 'Standard' response process):
  - 15.7.1. Upon receiving a request for support from the Authority, the Contractor will create a computer record of the request on their service response tracking system. This record of a call is called a service request. The Contractor will assign responsibility for the service request, and the service request will remain 'open' until the Authority's request is satisfied.
  - 15.7.2. The Contractor will contact the Authority to gain a more complete understanding of the request, recommend diagnostic tests and, with the Authority, interpret the results.
  - 15.7.3. For calls received before 12:00 noon (time zone of the designated Contractor office location), contact will be attempted prior to the end of the business day. (For tracking purposes, this is day #0.) For calls received after 12:00 noon (time zone of the designated Contractor office location), the contact will be attempted prior to 12:00 noon on the following day (this then becomes day #0). In either case, if telephone contact cannot be made, a message will be left and/or an email message will be sent.
  - 15.7.4. If the diagnostic tests indicate that an on-site intervention is required, the Contractor will assign an engineer within 24 hours and provide for the overnight shipment of parts. This service is free of charge at this service level ('Complete Plan').
  - 15.7.5. If the intervention resolves the problem, the service request will be closed upon receipt of the defective material.
  - 15.7.6. If the replacement material did not resolve the problem, the steps at 15.7.4 and 15.7.5 will be repeated until such time as the matter is fully resolved.
  - 15.7.7. When the Authority's request has been resolved, the service request will be closed.

**Replacements and Adjustments**

- 15.8. All Authority claims for support must be made within four hours after the occurrence of circumstances giving rise thereto. Such claims should include the product type and serial number, and a full description of the circumstances giving rise to the claim.
- 15.9. The Contractor will determine whether to handle a valid claim by:
  - 15.9.1. Sending a field engineer to the site;
  - 15.9.2. Requesting the Authority to send the defective part, assembly or instrument to a service shop or facility designated by the Contractor;

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15.9.3. Authorising the Authority to return the item to the Contractor.

15.10. Prior to return of any products, parts or assemblies to the Contractor (or its agent) for repair, exchange or adjustment, authorisation must be obtained from the Contractor together with instructions regarding packaging and shipment.

15.12. Any product, part, assembly sent to an authorised service shop or facility or returned to the Contractor for examination shall be sent prepaid via the means of transportation indicated as acceptable to both parties.

15.13. The Contractor reserves the right to reject any claim not promptly reported and any claim on any item that has been altered or has been shipped by non-acceptable means of transportation.

15.14. Notwithstanding any defect or non-conformity in the product, part or assembly being returned, any damage resulting from improper packing or handling will be deemed to be the responsibility of the transporter.

### **Authority Responsibilities**

16. The Authority will:

- 16.1. Ensure that the appropriate software is installed and running on the system as required;
- 16.2. Ensure that the appropriate instrument location is defined in the monitoring software;
- 16.3. Regularly update and maintain a correct list of contact persons on the instrument as described in the operator or user manual.
- 16.4. Ensure the primary user is available for review after the maintenance has been executed.
- 16.5. Take reasonable steps to keep ferromagnetic objects at a safe distance from the magnet, as this plan does not cover any damage caused from objects impacting the magnet.

17. The Authority commits to:

- 17.1. Maintain the site and environment in a condition suitable for operation of the covered instrument
- 17.2. Make normal operator adjustments to the instrument as specified in the Operator Manual;
- 17.3. Monitor the cryogen levels if the system has cryogens and take appropriate actions as described in the operator or user manual;
- 17.4. Perform required Routine Maintenance activities as described in the Operator Manual;
- 17.5. Immediately notify the Contractor of problems or unexpected behaviour with the covered instrument;
- 17.6. Make the instrument available, for service within the service times. If the Contractor is unable to gain this type of access at the agreed time, any makeup service may be separately billed by the Contractor at its applicable rate, including round trip travel time and expenses;
- 17.7. Provide adequate working space and facilities, including heat, light, ventilation, electric current outlets, and the like to be used by the Contractor. All such facilities shall be in the immediate proximity of the equipment to be serviced and shall be provided at no charge;
- 17.8. Provide an appropriate delivery dock and storage facility and to assist with moving any materials from the dock to the site of the covered instrument (and back) in a timely manner;
- 17.9. Return any defective items and/or our equipment used in repair within 20 days of shipment of a replacement part to the Authority's site. The material will be returned to the Contractor using shipping information and pre-paid labels included with the repair items;

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- 17.10. Notify the Contractor of any non-mandatory modifications or changes to the instrumentation that the Authority does not wish to be implemented or installed;
- 17.11. Supply nitrogen (liquid and gas) and helium gas when required for services;
- 17.12. Supply liquid helium when it is not included in the applicable plan;
- 17.13. Maintain refilling equipment such as but not limited to transfer lines, gauges, and hoses in functional condition to insure safe and efficient cryogen refilling;
- 18. The Contractor's service personnel must be protected from exposure to chemicals or other samples during visits to the Authority's facility. As such, it is essential that the Authority cleans the area around or under the instrument of spills or dirt that could contain traces of samples or other dangerous materials. The Contractor requires that the Authority's workspace be safe for the Authority's employees and visitors, but it is the Authority's responsibility to inform visitors of the hazards that may exist in the areas they visit. The Contractor reserves the right to protect its employees by refusing to service equipment that is not clean, is in an area that is not clean, or presents other health and safety risks under the control of the Authority. Keeping the Authority's equipment clean will help the Authority get the most from the equipment obtained from the Contractor.

**Contractor's Warranty**

- 19. The Contractor warrants to the Authority that any spare or replacement parts supplied by the Contractor in relation to the covered instruments while providing the maintenance services shall be free of material defects for the period of 90 days following their supply.
- 20. The sole and exclusive remedy of the Authority in the event of the Contractor's breach of its warranty given in Condition 19 above shall be to require the Contractor's repair or replacement of the relevant defective replacement part, which the Contractor shall procure without unreasonable delay following the Authority's request.
- 21. No representation or warranty is given by the Contractor that all faults found in the covered instruments (or any of them) will be fixed, or will be fixed within a specified period of time pursuant to its provision of the maintenance services.
- 22. The Contractor is not obliged under the Service Agreement to provide maintenance services in respect of any malfunctioning or failed Covered Instrument where the malfunction or failure results from or has been caused in any of the circumstances referred to in Conditions 30 to 36 (inclusive) as circumstances in which maintenance services will not be provided (the "**Exclusions**").
- 23. In the event that the Contractor provides maintenance services in relation to a covered instrument that is faulty or otherwise in need of repair as a result of any of the Exclusions, the Contractor may charge fees (at its then applicable rate) in respect of the provision of such maintenance services, and the Authority shall pay such fees and reimburse to the Contractor its reasonably incurred expenses in providing such maintenance services, on the Contractor's request.

**Force Majeure**

- 24. The Contractor shall not be in breach of this Contract, nor liable for late or non-performance of any of its obligations under this Contract, if such delay or failure result from a "Force Majeure Event". For the purposes of this Contract a Force Majeure Event is defined as one of the following:
  - 24.1. Acts of nature;
  - 24.2. War;
  - 24.3. Hostilities;
  - 24.4. National strikes;
  - 24.5. Terrorism;
  - 24.6. Biohazards;
  - 24.7. Sonic booms;
  - 24.8. Civil commotions;

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- 24.9. Fire at the Contractor's premises or those of its suppliers except to the extent that the fire was caused by their own negligence;
  - 24.10. Changes in law relevant to the contract performance; and
  - 24.11. Foreign government policy.
- 25. The Contractor shall immediately notify the Authority in writing on the occurrence of a Force Majeure Event, including details of the Force Majeure Event, its effect on the Contractor's obligations under this Contract, and the actions proposed to mitigate its effect.
  - 26. Subject to Condition 27 below, the Contractor shall be entitled to an appropriate extension of time for performing such obligations provided always that the Contractor has used, to the satisfaction of the Authority, all reasonable endeavours, both to mitigate the effects of the Force Majeure Event, and to facilitate the continued performance of its obligations under this Contract.
  - 27. The maximum extension of time granted under this clause shall be limited to 28 calendar days after which time the Authority may, on giving written notice to the Contractor, terminate this Contract, without seeking compensation from the Contractor, with immediate effect.

**Independent Contractor**

- 28. The Contractor's employees are under its exclusive direction and control. Nothing will be construed to designate the Contractor or any of its employees as the Authority's employees, contractors, agents, joint venturers or partners. Nothing in this Service Agreement is intended to, or shall be deemed to, establish any partnership or joint venture between any of the parties, nor constitute either party the agent of another party for any purpose. Neither party shall have authority to act as agent for, or to bind, the other party in any way.

**Work Outside Scope**

- 29. Any service which the Contractor provides outside the agreed scope of this Service Agreement may be separately billed by the Contractor to the Authority at the Contractor's applicable rates.

**Exclusions**

- 30. Reasonable care must be used to avoid hazards. The Contractor expressly disclaims responsibility for loss or damage caused by use of its products other than in accordance with proper operating procedures.
- 31. All obligations of the Contractor shall cease in the even its products or parts have been subject to accident, abuse, alteration, misuse or neglect, or have not been operated and maintained in accordance with proper operating procedures. All products and services must be provided through or with the knowledge and approval of the Contractor. The Contractor makes no warranty concerning services or components supplied through unapproved sources. What constitutes an approved source shall be determined solely by the Contractor.
- 32. No action, regardless of form, arising out of, or in any way connected with, the products or services furnished or to be furnished by the Contractor may be brought by the Authority:
  - 32.1. Against any officer, agent, employee or representative of the Contractor; or
  - 32.2. More than one (1) year after the cause of action has accrued.

**Maintenance coverage is subject to the following limitations**

- 33. Maintenance applies only to defects in material and workmanship in covered products and is not to be interpreted as providing full coverage for such items as Routine Maintenance, adjustments or recalibrations by the Authority as defined in the instrument manual, as per Conditions 16 to 18, Authority Responsibilities.
- 34. Electronic data recovery or reconstruction of Authority files are not covered.
- 35. Maintenance covers only parts and labour furnished by the Contractor on products and accessories of its own manufacture. Items not manufactured by the Contractor may be repaired or replaced according to the original manufacturer's warranty terms, if any, but the Contractor accepts no responsibility for failure of the original manufacturer to perform under its warranty obligations.
- 36. The following are expressly not covered:

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- 36.1. Anything beyond Bruker's reasonable control;
- 36.2. Any service to components of the magnet other than the covered instrument (for clarity, an example of this would be Liquid Nitrogen dewers and transfer lines used to fill the magnets);
- 36.3. Any cryogen supply or cryogenic service, including without limitation cryogen recharge or replacement;
- 36.4. The provision, payment, or reimbursement of any rigging or facility cost or accessory or service supply items (such as compressed air, electricity etc);
- 36.5. Any service required by:
  - 36.5.1. a design, specification or instruction provided by the Authority;
  - 36.5.2. the Authority's failure to fulfil its responsibilities;
  - 36.5.3. the failure of anyone other than Contractor Personnel to comply with the Contractor's instructions or recommendations;
  - 36.5.4. any alteration, action or improper storage, handling, use or maintenance of any part of the magnet by anyone other than Contractor Personnel; and
  - 36.5.5. any external influence to the covered instrument, including but not limited to building deficiency, power surge, fluctuation or failure, and air conditioner failure.
- 36.6. Any loss, damage, and/or instrument malfunction relating in any way to:
  - 36.6.1. Non-authorised Shipping or storage;
  - 36.6.2. Accident, abuse, alteration, misuse, or neglect;
  - 36.6.3. Deliberate breakage or abuse of parts;
  - 36.6.4. Operation other than in accordance with correct operating procedures;
  - 36.6.5. Tampering with the system (e.g. modification or tampering with one part of the instrument can, in some cases, affect another part of the instrument);
  - 36.6.6. Lack of routine care and maintenance, such as lubrication and cleaning, as indicated in the operating manual;
  - 36.6.7. Inadequate utility service, failure of electrical or other energy supplies, incorrect physical environment or other inadequate facilities or utilities as indicated in the operating manuals and/or pre-installation instructions;
  - 36.6.8. Chemical action or contamination;
  - 36.6.9. Failure to maintain proper liquid helium level in superconducting magnets; or
  - 36.6.10. Products, items, parts, accessories, subassemblies, or components which are expendable in normal use or operation of the instrument, or those of limited life, such as but not limited to filters, glassware, glass accessories, fuses, probe inserts, variable temperature dewars, and transfer lines, unless specifically covered by an express agreement extended to the Authority by the Contractor in writing.