

Quick Reference

Please note that you must read the full Call document for guidance before submitting your proposal

Call for a UK High Field Solid-State NMR National Research Facility

Call type: Call type: Invitation for proposals

Closing date: 9 July 2019 at 16:00

Funding Available: Up to £3.0 million

How to apply: Full proposals are invited with postal peer review and interview panel stage to make the final decision.

Assessment Process: Full proposals will undergo postal peer review, followed by assessment at an interview panel resulting in a rank ordered list. The interview will be based on the quality, resources and management, national importance, applicant's ability to deliver, pathways to impact and advocacy for the physical sciences, biological sciences and engineering.

Key Dates:

Activity	Date
Deadline for Full Proposals	9 July 2019
Interview Panel	8 October 2019
Funding decision	November 2019
Grant start date*	From January 2020

Additional information

*EPSRC will consider requests to start the grant earlier, with limited funding, if this is essential to enable a smooth transition and continuity of service. Applicants should contact EPSRC to discuss this before submitting.

Applicants must inform EPSRC (see contacts below) of their intent to apply prior to submitting a proposal.

Contacts:

- Dr Talit Ghaffar – 01793 444424 (talit.ghaffar@epsrc.ukri.org)
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Call for a UK High Field Solid-State NMR National Research Facility

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Closing date: 9 July 2019 at 16:00

Related themes: Physical sciences, Engineering, Healthcare Technologies,
Manufacturing the Future, Energy and Research Infrastructure

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Summary

Following the 2018 Statement of Need process:

(<https://epsrc.ukri.org/funding/calls/nrfstatementsofneed2018/>) the Engineering and Physical Sciences Research Council (EPSRC) in association with the Biotechnology and Biological Sciences Research Council (BBSRC), would like to support a UK High-Field Solid-State NMR National Research Facility that provides access to a range of cutting edge instruments, expertise and techniques in high-field solid-state NMR to support excellent research spanning disciplinary boundaries.

The facility will enable world leading research with the potential for commercial exploitation and ground breaking impact on the UK economy as well as wider societal benefits. It must facilitate timely access for a broad community of researchers with varying levels of expertise from the physical sciences, engineering and biosciences. Users from a wide range of disciplines are expected to be supported via appropriate and tailored package(s) of support from experimental design to data analysis and interpretation, including provision of a central suite of data analytic tools.

The facility must provide ongoing effective training, support and development of the next generation of researchers and skilled instrument scientists/specialists (research technical professionals (RTPs)) trained on high(est)-field solid-state NMR systems. It must act as a beacon for researchers who use and develop solid-state NMR and a focal point for the development of new techniques and best practice. To this end it is expected to work with relevant industry partners to carry out software, technique and instrument development to generate new cutting-edge tools for the community.

The facility is expected to actively promote solid-state NMR, and grow and expand the user base by bringing in new academic users (both within and outside the host institution(s)), and industrial users (incl. new companies) from across the UK. It should provide new communities and non-traditional users with a single point of access to a community of solid-state NMR experts, and support the triaging of users to the most appropriate nationally available solid-state NMR instrument(s) for their experimental need.

Total funding of up to £3.0 million is available for a period of five years. Funding can include costs associated with software, technique and instrument developments necessary for providing internationally relevant high-field solid-state NMR equipment and tools over the grant duration. No costs for research effort will be provided, except where research staff are employed to provide support to users of the facility and may also include developing the capability of the facility itself. Funding is expected to include technical effort to support new users with varying levels of prior experience, from a wide and diversified community of users.

Proposals will undergo postal peer review, followed by assessment at an interview panel resulting in a rank ordered list. Standard eligibility rules apply. Detailed criteria have been identified by an expert specification panel and applications should make sure to address these in full.

As a National Research Facility we will be looking for strong evidence of user-led input into submitted proposals.

Background

As an integral part of its portfolio, EPSRC invests in a range of National Research Facilities (NRFs) to offer the UK research community access to excellent infrastructure and expertise.

EPSRC National Research Facilities are defined as research facilities which provide resources that are of limited availability to UK researchers for one of several reasons including:

- The relative cost of the equipment and the supporting infrastructure required
- Dedicated equipment and supporting infrastructure is not required in every University
- Particular expertise is needed to operate the equipment or interpret the results
- Progress is enhanced by sharing information or software.

EPSRC initiated an annual call for [Statements of Community Need](#) to identify community requirements for National Research Facilities in 2018. The statements of community need were prioritised by an expert panel. This process assessed the quality, usage, national importance, strategic case & context, impact, justification for a NRF, sustainability and charging & access of the submitted Statements of community Need.

Following a successful Statement of community Need, EPSRC in association with BBSRC wishes to support a Call for a UK High Field Solid-State NMR National Research Facility. Peer review will be via postal peer review followed by assessment at an interview panel resulting in a rank ordered list. EPSRC and BBSRC will support the facility with a five year grant which will undergo a mid-term review at the 2.5- to 3-year stage.

The EPSRC convened a specification panel at which the Statement of Community Need was used to develop detailed facility requirements, which applicants are expected to meet. These are detailed in the Description of the Proposed NRF section.

For more information about EPSRC's portfolio and strategies, see our website: <https://epsrc.ukri.org/research/ourportfolio/>

Description of the Proposed NRF

1. Key requirements for service

The service will provide researchers with access to solid state NMR expertise and technical capabilities to tackle research questions from academia and industry including but not limited to the physical sciences, materials and the biosciences. The facility is expected to act as a focal point for driving forward leading-edge technique development and applications of high-field solid-state NMR. The facility must take a leadership position within the research community and must describe where it sits within the national and international solid-state NMR infrastructure landscape, and the proactive steps it will take to engage with, and enhance user access to this broader national infrastructure landscape.

As a minimum the service must meet the following technical requirements:

- a. Applicants must provide access to solid-state NMR instrument(s) with a range of field strengths including $\geq 850\text{MHz}$ field strength and wide bore capability maximising outputs from recent UKRI investments in very high and ultra-high field Nuclear Magnetic Resonance (NMR) spectroscopy (consideration should include but is not limited to this instrumentation) [<https://epsrc.ukri.org/newsevents/news/nmrequipmentinvestment/>].
- b. Users will require access to a wide range of probe capabilities in addition to high-field solid-state NMR instrument(s), and applicants must describe how available capability and development of new capabilities addresses the broadest range of user needs now and into the future. Capability must include but is not limited to:
 - i. Multinuclear approaches including a wide range of quadrupolar nuclei
 - ii. Time resolved experiments
 - iii. Different sample environments
 - iv. Dilute and low gamma nuclei
- c. The provision of off-line tools to increase efficiency and productivity of the facility such as:
 - i. Remote access to NMR pulse sequence development software pre-experiment to enable NMR pulse sequences to be debugged and checked prior to implementation by user(s) on the solid-state NMR equipment itself. Where a new pulse sequence is developed by a user, the code must be made available to other users via a library of pulse sequences (once the pulse sequence has been published).
 - ii. Provision of data processing and software tools for solid-state NMR spectroscopy with remote access for external users. Tools are expected to appropriately service the requirements of a wide variety of disciplines and application areas.
- d. The facility should provide expert advice, support and training to all users. This should be via information and appropriately tailored training package(s) that as a minimum must provide:
 - i. Guidance for the user on their likely user experience; this is anticipated to be different for different levels of user, i.e. novice, experienced, expert user
 - ii. Access to expert advice and support for users from across a range of relevant disciplines and application areas
 - iii. Training provision in equipment use in accordance with user needs to include face-to-face training and support by email
 - iv. Site safety training at levels relevant to the user

- v. Experimental design and feasibility, including triaging requirements for best fit to nationally available high-field solid-state NMR instrumentation within and beyond the NRF
- vi. Access to a central suite of data analytic tools, and expert assistance on using tools and interpreting data/results appropriate for the experience/discipline of the user
- vii. Sample preparation and storage facilities

2. Operational requirements

Proposals must meet the following operational requirements. These must continue over the lifetime of the grant; plans and resource requests for these purposes must be clear in the proposal:

- a. Applicants must detail and justify the expected balance between the following, referencing the planned cost-sharing strategy (section 4) as appropriate:
 - i. User type (from/outside host organisation(s), academic, industrial etc.)
 - ii. Experiment type
 - iii. Time that will be dedicated to the various categories of use e.g. user experiments, technique development, instrument(s) maintenance & calibration.
 - iv. Access type (fast-track etc.)
- b. Applicants must operate a suitable and transparent process for prioritising, allocating and scheduling instrument time for user access and how considerations such as but not limited to assessment of scientific quality, diversification of the user base, variety of access routes (charged usage/fast-track/free-at-the-point of access), and training will be tensioned in the process. Details should be given of options for a percentage of the facility to be open to researchers in areas beyond EPSRC/BBSRC's remit, e.g. interdisciplinary researchers and business customers (referencing the planned cost-sharing strategy (section 4) as appropriate).
- c. The facility is expected to actively grow and diversify the user base (new universities, new research organisations, different research communities and new industrial users & companies) over the lifetime of the grant. The applicants should provide details about how they will assess the current and future size of the user base, their **communication & engagement strategy** to reach new user communities and what growth they expect to achieve in the user base. Consideration should be given to how the facility will work with the wider solid-state NMR community to manage and triage user demand, with the aim of optimising the match between the user's experimental requirement(s) and nationally available solid-state NMR instruments.
- d. For the duration of the grant the facility must maintain a fit for purpose website that provides a clear first point of contact, information on the

procedure to gain experiment/instrument access, remote access to data, and software for data processing and analysis. The website must fully comply with accessibility best practise and promote the facility by describing and demonstrating the capability(s) offered and world leading outputs enabled.

- e. The facility is expected to collect usage statistics in line with relevant GDPR regulations and grant conditions. The facility must be able to report on individual users and record which equipment and services they used, the number of experiments carried out, and whether they obtained the data they sought. Usage data and user consultation should inform decision making regarding capability developments, user engagement, service improvements and future provision.
- f. Applicants will provide a plan with details on how the capability of the facility and associated preparatory, storage and ancillary equipment will be maintained. This should include details of agreements with the appropriate equipment manufacturer for upgrading and developing the equipment and facility, and a consideration of how these costs might be reduced over the lifetime of the grant. Outline plans for routine servicing and preventive maintenance should be provided, in addition to details of local technical expertise for equipment maintenance and repair.
- g. The facility must provide a data management policy that is compliant with UKRI open data policy, and extends beyond the lifetime of the grant. The facility must have appropriate and robust systems and procedures to ensure Data Protection during collection, storage, processing, remote access and secure downloads of research data.
- h. The facility must utilise instruments to a maximum extent, with an aim of working towards 24/7 operation using extended hours working together with remote or programmed operation. Applicants should detail the expected level of available time and how they will ensure the highest standards of operation at all times, including managing staff needs, i.e. work-life balance, in tandem with the provision of appropriate out-of-hours support for users, policies and procedures.
- i. The facility must have a:
 - i. Policy for how the facility will be acknowledged in publications, presentations and other outputs attributable to the service.
 - ii. Strategy for capturing evidence of impacts over the short, medium and long term. This should include an approach for measuring, reviewing and reporting impacts over the lifetime of the grant in order to demonstrate the added value of the facility.
- j. Applicants should provide a clear **transition plan** to cover the period between the end date of the current UK 850MHz Solid-State NMR Facility (January 2020) and both the 'Commencement of Service' and a 'Fully Operational Service' via the successful grant application(s). The applicants should state in their proposal how much time they will require for a transition period to ensure continuity of service.

3. People and management arrangements

The facility must meet the following requirements:

- a. The facility shall be led by an eligible academic who will be the nominated director and will be ultimately responsible for the execution of any grant. This named person shall have an international reputation in solid-state NMR spectroscopy and the ability to work constructively with multiple stakeholders and funders. Co-director(s) with a distinct role can also be included if fully justified.
- b. There must be a nominated technical director who will manage and lead the delivery of the facility. This may or may not be the same person as the nominated director. In the submitted documents please clearly identify who will fulfil both posts and also provide evidence of their ability to accomplish their roles and deliver the facility both operationally and strategically.
- c. The facility should have a clear and appropriate governance and management structure including an independent advisory board that reflects a diverse user community (the requirements of this board are described further under the 'additional grant conditions' section). There must be clear separation of duties between any management boards, advisory boards and allocation panels and robust/transparent procedures for appointing/replacing members. A diagrammatic **organogram** of the proposed organisational structure should be provided.
- d. Applicants should give details of the staffing plans for the facility and evidence of how the staff expertise will meet the needs of the broad user community. The submitted management plan must include:
 - i. Measures to safeguard facility continuity in the event of the proposed director leaving and/or other senior staff changes.
 - ii. Consideration of the single-point failure risk for all key staff needed for optimal facility operation, including the maintenance of an effective website.
 - iii. A **risk management strategy** including a risk register focussed on achieving the highest productivity of the facility and a strategy for reducing risks and/or ameliorating their impact.
 - iv. Continued support and development of instrument scientists and research technical professionals (RTPs) associated with the operation of the facility.
- e. The facility should have appropriate management processes in place to support and improve user access including:
 - i. A health and safety policy that covers training of new users and assessment of user competency to use the facility.
 - ii. Robust Intellectual Property and confidentiality procedures for industrial users.

- iii. A process via which users can raise a request, complaint or issue about any aspect of the service, and a procedure for resolution. The applicant(s) should detail how user feedback will be managed, analysed and used to implement facility improvements.
- f. Any grant(s) awarded as a result of this call will be expected to review performance against agreed KPIs. Applicants must identify a comprehensive set of KPIs that they propose to use for facility performance measurement and management. KPIs are expected to cover all aspects of the facility's key requirements; number of service users and evidence for engagement with new user communities, growth in usage, supported projects, service improvements, allocation process, outputs/impacts and a vision for the future that addresses the cost recovery model/targets for the facility.
- g. The facility is expected to take a leadership and advocacy role in the relevant communities. Leadership in this context might involve:
 - i. Supporting/contributing-to the development of future capital / infrastructure strategy, e.g. NMR roadmaps, infrastructure reviews
 - ii. Outreach
 - iii. Demonstrating value of the service to the community (need and usage)
 - iv. Capturing and maximising impact

4. Cost sharing

EPSRC is committed to providing cost effective National Research Facilities that complement, but do not undercut provision within the wider national infrastructure landscape. EPSRC continues to support NRFs by providing recurrent funding to maximise facility impact and broaden the user base. However, in line with other NRFs EPSRC will not fund the entirety of the facility and requires a proportion (%) of the recurrent (resource) costs for the facility operation to be recovered each year through charged usage. For the avoidance of doubt, in this context, recurrent costs mean operational expenditure that is not equipment spend.

The table below sets out what EPSRC considers to be reasonable minimum cost recovery targets for a UK High-Field Solid-State NMR NRF over a five year funding period Applicants may wish to propose alternative targets and are welcome to describe how further savings might be made and used to fund enhanced facility activities/capabilities. These should be reflected in the proposed **grant payment profile** that will need to be provided as part of the grant application.

	Year 1	Year 2	Year 3	Year 4	Year 5
% of recurrent (resource) costs to be recovered	20%	20%	30%	40%	50%

Applicants must detail the proposed approach toward meeting the(ir) cost recovery targets and provide evidence that the approach ensures optimal utilisation of the leading edge facility equipment by a variety of user types (as detailed in Section 2. Operational Requirements). EPSRC expects applicants to identify non-UKRI sources of funding to underwrite the cost-recovery plan in the event of targets not being met which should be documented in letters of support.

The proposal should include details on the proposed charging model, and how it would operate for different types of user and/or different access routes. The definition of the different charging-categories in the charging model should be included, as well as consideration of how charged usage will dovetail with free-at-the-point access facility usage and how this may affect prioritisation of experiments. Applicants should describe how different access routes will be managed to protect the proposed balance of different users as detailed in Section 2.b. Operational Requirements.

If, following peer review, EPSRC considers that insufficient effort has been made to detail a cost effective facility it may, in discussion with the PI, alter the profile of a successful grant to return maximum value to UK research users.

Progress towards increased sustainability will form a key KPI of the successful grant and will be reviewed by the independent advisory body and at the mid-term review.

5. Host organisation support

The facility should be run for the benefit of the national research community. EPSRC and BBSRC are therefore paying the majority of costs at 100% FEC. However, it is important that the host organisation(s) also commit to fully supporting the bid (as detailed in the host organisation letter(s)). As a minimum they must commit to:

- Relinquishing rights to university owned equipment for external users at the levels detailed in the application.
- Underwriting the meeting of the cost-recovery targets, in order to provide staff and other resource costs if targets are not met.
- Providing appropriate support and development opportunities for all staff, including instrument scientists and research technical professionals (RTPs) associated with the operation of the facility.
- Long term (beyond the length of the grant) data storage and retrieval facilities in line with UKRI data policies.
- Supporting the applicants to develop and implement policies that provide safe, secure and legal access for external users to the facility.
- Supporting the applicants to utilise expertise on the design, creation and maintenance of a fit-for-purpose website for marketing, user support and data collection.

Funding available

There is a maximum research council budget of £2.5 million for the recurrent (resource) funding of the facility, and an additional budget of £500K for capital.

The BBSRC will contribute up to 15% towards co-funding the successful proposal(s) to ensure access to the NRF for the biosciences community.

Applicants, as part of the grant application, must propose a **grant payment** profile that sets out the expected pattern of expenditure over the lifetime of the grant. This payment profile for the facility must reflect the cost recovery targets for the recurrent (resource) costs proposed by applicants, and the planned schedule for capital/equipment expenditure over the duration of a five year grant.

With regards to resource costs, funding for investigator time and public engagement activities should be costed as normal with funds requested at 80% FEC. All equipment should be costed at upto 100% FEC under the Equipment heading. All other costs are expected to relate to the running of the National Facility and should be recorded under the Exceptions heading and requested at 100% FEC.

Equality, Diversity and Inclusion

The long term strength of the UK research base depends on harnessing all the available talent and the Research Councils have together developed the ambitious UK Research and Innovation Equality, Diversity and Inclusion Action Plan <https://www.ukri.org/files/legacy/skills/action-plan-edi-2016/>

In line with the UK Research and Innovation Diversity Principles, equality and diversity must be embedded at all levels and in all aspects of research practice. We are committed to supporting the research community in the diverse ways a research career can be built with our investments. This includes career breaks, support for people with caring responsibilities, flexible working and alternative working patterns. With this in mind, we welcomes applications from academics who job share, have a part-time contract, need flexible working arrangements or those currently committed to other longer, large existing grants. Please see our Equality and Diversity webpages at <https://epsrc.ukri.org/funding/equalitydiversity/> for further information.

Equipment

Equipment is available through this call up to a total combined budget of £500K and must be justified. Where possible, applicants are asked to make use of existing facilities and equipment, including those hosted at other universities. If equipment is needed as part of the NRF, applicants must follow EPSRC's rules for requesting equipment over £10,000 in value.

Individual items of equipment between £10,000 and £400,000 can be included if the equipment is essential to the proposed NRF and if no appropriate alternative provision can be accessed.

Additional justification of the requirement for individual items of equipment between £10,000 and £400,000, and details of the proposed contribution to the cost of the equipment, must be provided in the justification of resources.

Quotes for equipment are required as per EPSRC standard equipment rules.

For any items or combined assets with a value above £138,000 a two-page Equipment Business Case must also be included in the proposal documentation. Guidance on how to prepare an Equipment Business Case and requirements for

quotes can be found on the following webpage:

<https://epsrc.ukri.org/research/facilities/equipment/process/researchgrants/>

For more information on equipment funding, please see:

<https://epsrc.ukri.org/research/facilities/equipment/>.

Please see the **Funding Available** section (Page 10) for further information about costing equipment on applications to this call.

Eligibility

Please ensure sufficient time to create Je-S accounts for Investigators who do not currently have one.

For information on the eligibility of organisations and individuals to receive EPSRC funding, see the EPSRC Funding Guide:

<https://epsrc.ukri.org/funding/applicationprocess/fundingguide/>

A list of eligible organisations to apply to EPSRC is provided at:

<https://www.ukri.org/funding/how-to-apply/eligibility/>

How to apply

Submitting an application

You should prepare and submit your proposal using the Research Councils' Joint electronic Submission (Je-S) System (<https://je-s.rcuk.ac.uk/>).

When adding a new proposal, you should select:

- Council 'EPSRC'
- Document type 'Standard Proposal'
- Scheme 'Standard'
- On the Project Details page you should select the 'Solid State NMR NRF' call.

Note that clicking 'submit document' on your proposal form in Je-S initially submits the proposal to your host organisation's administration, not to EPSRC. Please allow sufficient time for your organisation's submission process between submitting your proposal to them and the call closing date. **EPSRC must receive your application by 16:00 on 9 July 2019.**

Guidance on the types of support that may be sought and advice on the completion of the research proposal forms are given on the EPSRC website (<https://epsrc.ukri.org/funding/applicationprocess/>) which should be consulted when preparing all proposals.

Guidance on writing an application

Applicants should use the Je-S form to address the call specifications. A case for support will be the primary supporting document and will be of a longer format than those submitted for standard proposals. The overall page length will be up to 20 pages. Applicants must include the following sections in the case for support:

- Track Record of Applicants (up to a maximum of 2 pages)

- Service Description
 - Applicants should use this section to describe and detail the service they propose to provide covering the elements detailed in '**Key requirements for service**' (page 4).
 - Applicants should include details of their long term vision and must describe how it sits within national and international Solid-State NMR infrastructure landscape.
 - As part of this section applicants must provide details of their proposed user training provision, including the expertise and experience of those involved in training for the different levels of users. This should take into account the needs of different user groups (e.g. post graduate/doctoral researchers, academic researchers and industrial users). This should include how the service will engage with future generations of researchers, including the Centres for Doctoral Training:
<https://epsrc.ukri.org/skills/students/centres/>
- Operational Details
 - Applicants should use this section to detail how they will meet the '**Operational requirements**' (page 6)
 - As part of this section applicants should provide a clear **Transition Plan** to cover the period between the end date of the current UK 850MHz Solid-State NMR Facility (January 2020) and the transition to a new facility provider enabling a smooth transition and continuity of service.
 - As part of this section applicants should provide a clear **Communication & Engagement Strategy**. It is necessary that sufficient detail is provided in order for assessors to understand how information about the available capabilities and access to the service will be disseminated including website, user meetings, outreach events and dissemination material.
- People and Management
 - Applicants should use this section to detail how they will meet the '**People and management arrangements**' (page 7).
 - This section should provide
 - Plans for staff development and training
 - Detailed arrangements for career progression for staff
 - Information on how changes in key service staff will be handled, (continuity plans, short-term cover, contingency plans for unexpected loss of key staff). Recruitment policy and procedures

- Applicants should provide an **Organogram** of the proposed organisational structure for the facility showing lines of authority, responsibility of key posts, and details of any identified deputies
- As part of this section EPSRC expects the applicants to provide details of the **Risk Management Strategy** which they will have in place.
- Governance Plan
 - EPSRC expects that a governance structure for the service will be put in place. As part of this section applicants should provide details of this structure, which should include an independent steering/advisory committee composed of independent/external representatives from relevant communities to review/advise on provision, performance and strategy for the service.
 - As part of this section applicants should identify a comprehensive set of **Key Performance Indicators** that the service will aspire to meet.
 - EPSRC expects that a proposed service will have a process in place for complaints and monitoring of user satisfaction. As part of this section applicants should provide details of the proposed feedback processes and how feedback will be used to implement improvements.

In addition applicants must provide:

- Justification of Resources (with a longer format of up to 4 pages).
 - The Justification of Resources should explain the necessity of your requested resources for service provision, including implementing the Impact Plan. This helps reviewers make informed judgements about whether the resources requested are appropriate and justified.
 - So nothing is missed, EPSRC recommend that you follow the 'Cost to the Proposal' headings used in the application form. For more information on what to do, see how to write a Justification of Resources for further guidance <https://epsrc.ukri.org/funding/applicationprocess/preparing/writing/jor/>.
- Workplan (1-page)
 - The work programme should be illustrated with a simple diagrammatic work plan, such as a Programme Evaluation and Review Technique (PERT) or Gantt chart.
- Pathways to Impact (up to 2-pages)
 - Applicants should request and justify project-specific resources and time needed to achieve their pathways to impact. Further guidance available

- CVs where appropriate (each up to 2-pages)
 - CVs should be submitted as separate attachments using Attachment Type 'CV' in Je-S, and are required for key named personnel, e.g. director, deputy director, technical director and facility/service manager.
- Grant payment Profile (1-page)
 - Applicants must provide a grant payment profile that details the planned expenditure against each recurrent/resource and capital cost heading over the lifetime of a five year award.

Fund Heading	Year 1				Repeated for Years 2, 3, 4 and 5
	Q1 Net Value (£)	Q2 Net Value (£)	Q3 Net Value (£)	Q4 Net Value (£)	
DI - Staff					
DI - T&S					
DI - Equipment					
DI - Other Costs					
DA - Investigators					
DA - Estate Costs					
DA - Other Directly Allocated					
Indirect - Indirect Costs					
Resource Total (£)					
Capital/Equipment Total (£)					

- Proposal Cover Letter (optional)

Applicants can use the Proposal Cover Letter to set out any other information they feel is relevant to their application. As the applicant is applying for a grant which has an interview assessment stage, they should inform EPSRC of any personal circumstances for EPSRC to consider.

This letter will only be seen by EPSRC and will not be sent to Peer Review. For sensitive information the applicant should state clearly whether the information is confidential.

The Proposal Cover Letter should also be used to highlight anything that has been discussed and agreed with EPSRC staff beforehand. For example:

- Applicant is on maternity leave until a certain date;
- Declaration of Interest;
- Additional information about eligibility to apply that would not be appropriately shared in the track record;
- Conflicts of Interest for EPSRC to consider in reviewer or panel participant selection

Applicants should use the Ethical Information section on the Je-S form to demonstrate to peer reviewers that they have fully considered any ethical issues concerning the material they intend to use, the nature and choice, current public perceptions and attitudes towards the subject matter or research area. EPSRC will not fund a project if it believes that there are ethical concerns that have been overlooked or not appropriately accounted for. All relevant parts of the Ethical Information section must be completed. If the research will involve human participation or the use of animals covered by the Animals (Scientific Procedures) Act 1986 it is recommended that applicants pay particular attention to the guidance highlighted below. EPSRC reserves the right to reject applications prior to peer review if the Ethical Information sections are not completed correctly.

Further guidance on completing the Je-S form can be found at <https://je-s.rcuk.ac.uk/Handbook/pages/GuidanceonCompletingaStandardG/EthicalInformation.htm>. Other relevant guidance includes: EPSRC's policy on animal use in research (<https://www.epsrc.ukri.org/about/standards/animalresearchpolicy/>) and the Responsible Innovation Framework (<https://epsrc.ukri.org/research/framework/>).

Please note that on submission to EPSRC all non-PDF documents uploaded onto Je-S are converted to PDF, the use of non-standard fonts may result in errors or font conversion, which could affect the overall length of the document.

For advice on writing proposals see:

<https://epsrc.ukri.org/funding/howtoapply/preparing/>

Assessment

Assessment process

Proposals will be submitted via Je-S. Each proposal will be initially assessed by postal peer review. Applicants will then be invited to respond to the reviewers' comments. Following this an expert panel will interview applicants and use the proposal, reviews, PI response and responses at interview to score the applicants against the following criteria. The interview panel will make the final recommendations to the EPSRC theme lead.

Each proposal will be assessed against the criteria listed below.

Assessment criteria

Applicants should note that the assessment criteria differ slightly to the standard EPSRC criteria due to the nature of the programmes of work to be funded. We also wish to highlight that due to the increased importance of appropriate management and governance procedures for a national research facility, the secondary major criterion is Resources and Management **not** National Importance.

Quality (Primary)

Assessors will be asked to comment on the excellence of the application making reference to:

- The ambition, long-term vision, and transformative aspects identified

- The appropriateness of the proposed approach(es) and fit to the key service requirements and operational requirements sections.
- The quality of the science enabled.
- Engaging and adapting to the needs of a diverse user community.

Resources and Management (Secondary Major)

Assessors will be asked to comment on:

- The effectiveness of the proposed planning, management and governance and the fit to the people and management arrangements section.
- Whether the requested resources are appropriate and have been fully justified.
- An unsatisfactory governance (including KPI's) plan will result in a delayed start for a successful proposal until the plan has been updated.

National Importance (Secondary)

Drawing upon what the applicant has said, assessors will be asked to comment on:

- How the proposed service contributes to, or helps maintain the health of other research disciplines, contributes to addressing key UK societal challenges, contributes to current or future UK economic success and/or enables future development of key emerging industry(s)
- The extent to which the service proposed has the potential to meet national strategic needs by establishing or maintaining a unique world-leading research activity (including areas of niche capability)
- How the service fits with and complements other UK research already funded in the area or related areas, including the relationship to the EPSRC portfolio and our stated strategy set out in "Our Portfolio", and the relevance and fit to the BBSRC portfolio.

Applicant's Ability to Deliver (Secondary)

- Appropriateness of the track record of the applicant(s) to deliver the service

Pathways to Impact (Secondary)

- How convincingly has the potential impact of the service/facility has been described?
- How appropriate/effective are the arrangements described for facilitating the impact?
- An unsatisfactory impact plan will result in a delayed start for a successful proposal until the plan has been updated.

Advocacy for engineering and the physical sciences (Secondary)

- The proposal must demonstrate how the group will be advocates for the engineering and physical sciences. Applicants should specifically address

how they will influence its policy makers on the importance of engineering and physical sciences. Advocacy through public engagement activities can also be considered, as long as these activities are directly related to the programme of research applied for. **This criterion will be solely assessed at the interview stage.**

Feedback on the decision will be given by e-mail after interview.

Guidance for reviewers

Information about the EPSRC peer review process and guidance for reviewers can be found at: <https://epsrc.ukri.org/funding/assessmentprocess/review/>

A standard reviewer form will be used for this call, however reviewers should note the nature of a National Research Facility when considering quality. As such, **reviewers are requested to comment on the quality of the potential research enabled** by having such a facility in the UK. Within the quality field, reviewers should comment on how the proposed service meets the key requirements of the facility including technical, operational and management aspect as detailed in the call document.

Guidance for reviewing standard grants can be found here:

<https://epsrc.ukri.org/funding/assessmentprocess/review/formsandguidancenotes/standardgrants/>

Additional grant conditions

Grants will be subject to the standard UK Research and Innovation grant conditions however the following additional grant conditions will be added to this call:

GAC 01 - Purpose of grant funding

This grant has been funded under the National Research Facilities scheme and forms part of a portfolio of facilities. In line with the purpose of EPSRCs National Importance criteria investigators and researchers associated with this grant are expected to promote the aims of the associated research programme and be advocates for EPSRC.

GAC 02 - Governance

EPSRC and BBSRC will each nominate a member(s) of UKRI staff (The Project Officers) who will be your primary point of contact with the research councils. The Project Officers will ensure that the project is being run in accordance with the terms and conditions and in line with financial due diligence. The Project Officer(s) should have access to all documentation of Governance and Reporting bodies, in so far as it relates to the administration and application of the grant. As funding administrators, all UKRI staff have agreed to maintain the confidentiality required by all parties involved in research council funded research.

This grant must establish and run an Independent Advisory Board, or equivalent body, to oversee the day to day running of the project and provide advice on the strategic direction and activities of the project. The terms of reference of this group should be agreed with the EPSRC/BBSRC and it should have at least 50% independent membership and an independent Chair. The Project Officers will also be expected to attend and participate in Advisory Board and other appropriate meetings for the duration of the grant. The grant holder must produce a data management policy that meets with the approval of the independent advisory board.

The Grant Holder should establish an appropriate management structure, which must incorporate independent membership and clear lines of responsibility and authority. This should be in place within six months of the start date of the grant. The terms of reference and membership of any committees established must be agreed in advance with EPSRC and BBSRC. The Project Officers will be EPSRC and BBSRC's main contact with the project, and must receive all meeting minutes of the committees. EPSRC and BBSRC reserve the right to attend any meetings.

GAC 03 - Monitoring and Reporting

The Grant Holder must agree to comply with requests for additional financial or non-financial information outside of the stated reporting cycle. Regular monitoring will be conducted through the Project Officer, who will act on behalf of UKRI.

In addition to the requirements set out in standard UKRI grant conditions RGC 16 Disclosure and Inspection, RGC 17 Reporting on the Conduct and Results of Research, EPSRC and UKRI reserve the right to instigate a review of all or part of the grant at any stage during the lifetime of the award as well as after the grant has finished. A Mid Term (Year 3) review of this grant will take place to assess the performance of the grant in line with the peer reviewed body of work, published scheme assessment criteria and Key Performance Indicators. EPSRC will give the Grant Holder due notice of the date of any review and will provide details of the Terms of Reference and documentation required. Any review will be conducted by an expert panel, which will make recommendations to EPSRC for the grant's future.

In addition to the requirements set out in the standard UKRI grant condition RGC 21 Research Monitoring and Evaluation, the Grant Holder is responsible for providing six month progress reports against non-financial performance metrics. A detailed list of performance metrics and instructions for reporting will be agreed with the Grant Holder upon commencement of the grant.

In accordance with RGC 18 Sanctions, EPSRC reserves the right to suspend the grant and withhold further payments if the performance output metrics requested are not provided by the stated deadlines or determined to be of an unacceptable standard by the EPSRC Project Officer(s). The Research Organisation will be formally notified in writing if a suspension occurs. Any costs incurred during this period, irrespective of source, will be incurred at risk with subsequent EPSRC payments being withheld should any discrepancies remain unresolved.

GAC 04 - Grant Expenditure

At the start of the grant the financial spend profile will be agreed by UKRI and is outlined below.

Year	Q1	Q2	Q3	Q4

In addition to any reporting requirements set out in GAC 03 the Grant Holder must immediately notify the EPSRC (& BBSRC) Project Officer(s) of any accumulation, slippage or variation in expenditure greater than 5% of the annual profiled funding. EPSRC reserves the right to re-profile the grant if required.

Any deviation from the agreed allocation of funding and profiled costs must be negotiated and approved through written consent by EPSRC, acting on behalf of UKRI. The approval of profile changes should not be assumed and will be dependent on spend across all associated grants.

Moving forward

Submissions to this call will **not** count towards the Repeatedly Unsuccessful Applicants Policy. Further information about the policy can be found at: <https://epsrc.ukri.org/funding/howtoapply/basics/resubpol/rua/>

Key dates

Activity	Date*
Call Opened	1 May 2019
Call Closes	9 July 2019
Interview Panel	8 October 2019

*EPSRC aims to adhere to the key dates as published, however there may be exceptions where the interview meeting may have to change due to panel member availability.

Contacts

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Change log

Name	Date	Version	Change
Simon Crook	21/3/19	1	Updated to NMR call document
Talit Ghaffar	15/4/19	2	Updated following feedback from Specification Panel, theme leads and EPSRC Peer Review Team.
Talit Ghaffar	30/4/19	3	Incorporating further input from UKRI Finance, EPSRC Peer Review Team, Specification Panel, BBSRC, and EPSRC's Infrastructure theme.
Talit Ghaffar	12/06/19	4	Clarification of the sentence on pg.4 "No costs for research effort will be provided" with the additional text "except where research staff are employed to provide support to users of the facility and may also include developing the capability of the facility itself".

Attachment Checklist

Standard:

Attachment Type	Maximum Page length	Mandatory/Optional	Extra Guidance
Case for Support	20 pages including governance and KPIs	M	Guidance on writing an application section of this call
Pathways to Impact	2 pages	M	
Workplan	1 page	M	
Justification for Resources	4 pages	M	
Grant Payment Profile	1 page	M	
Project Partner Letters of Support	No page limits	As Required by EPSRC	Must be included from all named project partners. Must be on headed paper, and be

			signed and dated within six months of the proposal submission date.
Equipment Quotes	No page limits	As Required by EPSRC	
Equipment Business Case	2 pages each	As Required by EPSRC	Required for any items or combined assets with a value above the OJEU limit.
Technical assessment	No page limit	Not required	
Other attachment	No page limit	As required, at EPSRC request only	This can be used for a document that does not fit under any of the headings above. This attachment type is not seen by reviewers or panel members.

Please ensure you adhere to the above attachment requirements when submitting your proposal. Any missing, over length or unnecessary attachments may result in your proposal being rejected.