NDA PhD Bursary Call:

Proposal Assessment Guide

The call will take the form of a request for proposals that will be communicated via the NNL web site, mailing lists and social media. The call announcement will direct interested parties to the NNL web site, which will direct to background material (supporting information, call themes) and a web site where the proposal can be entered via a web-based form.

The structure of the call for proposals, format of the proposal submission template, and the process by which each of the entries in the response will be assessed is as follows:

- **Applicant details** – Contact details, lists of collaborators & legal declarations. This information will be hidden from the reviewers to reduce the likelihood of unconscious bias.

- **Idea summary** - overall description of the research project which should be accessible to a general audience, i.e. written in "plain English". Response will be limited to 200 words. Not scored, but may be published on public websites.

1) Support to the NDA mission

How the proposal will help the NDA mission. Response will be limited to 400 words.

This is specifically a question on the research outcomes and methodology that will be applied in the project.

An Ideal response will:

- Refer to specific challenges on NDA sites that exist now or are likely to become issues in the future with examples from multiple NDA sites. Except in the case of the 'open' theme it is expected that this will be explicitly linked to a statement in the call for proposals.

- The response will describe why the current solution is non-optimal. The proposal will demonstrate understanding of the challenge and the sites/process/technologies it relates to.

- Describe how the proposed research relates to those problems and will tackle them/increase understanding of them/contribute to or produce an alternative tool or technique for dealing with them.

- The response will clearly define the scope and main deliverables from the project.

  Describe how the work is novel and/or builds upon previous work or experience of the supervisory team.

Applicants who have not previously worked with the NDA or with partners supporting the NDA mission are advised to seek support from industry experts to help complete this section.

This response will contribute to 35% of the overall score weighting.

Assessment

(0) No Evidence or very poor

- Response does not answer the specific question or provides no detail of how the methodology applied to the PhD project will support a problem statement set out within the call, or within the NDA's overall R&D plan.

(1) Poor

- The response does not clarify how this proposal is relevant to a research challenge that has been specified in the call or more widely by the NDA group (e.g. within the NDA's overall R&D plan).

- The objectives are not stated or are unclear.

- The response is unclear with respect to the methodology that is to be employed and/ or is unclear as to how the response builds on prior research.

(2) Acceptable

- The final objectives of the project have been defined.

- The response provides an explanation of how this is either relevant to a research challenge that has been specified in the call or is relevant to the NDA mission, but may lack specific examples of where it could be employed within the NDA group.

- The response describes the methodology to be employed but may lack detail on why that methodology is appropriate and/or be unclear as to how the response builds on prior research.

(3) Good

- The response explains in detail how the research will be undertaken and why the proposed methodology is appropriate for addressing the challenge. The project objectives are clearly defined and could credibly be achieved via the stated method.

- The proposed research topic shows a clear link with a problem statement set out within the call or within the NDA's overall R&D plan, building on prior research where appropriate.

- The response provides some supporting evidence of how the research meets the challenge and/or includes credible examples of where the research would be applicable across the NDA group.

(4) Excellent

- The response explains the methodology to be employed in a way that is fully understandable to a wider technical audience. The project objectives are unambiguously defined and clearly obtainable via the stated method.

- The proposed research topic shows a strong connection with an existing or future research challenge and shows insight into the decommissioning challenge that goes beyond that purely communicated in published materials from NDA.

- The response makes clear the link to prior research, so the technical credibility of the research is soundly established.

- The benefits of undertaking the PhD research project are clearly defined with credible examples of application of how it will help the NDA to achieve its mission faster, cheaper or safer.

2) Skills and capabilities

How the response will fill a skills gap including how the wider research team's skills will be developed. Response will be limited to 400 words.

An ideal response will:

- Identify the specific skill set that will be developed by the proposed work and demonstrate how & where that fits into the long-term NDA mission.

- Demonstrate with evidence where there are now (or will in the future be) subject matter expert requirements in the field in which the researcher will be trained.

- Explain why a PhD research project is the best way to fill/train someone for the specific identified subject matter expert gap.

- Identify "peripheral" skills/knowledge that will be developed during the PhD research project and explain why these are now/will in the future be relevant to the decommissioning industry.

- Show how skills will be developed/retained within the wider supervisory team. This will include the student, the Principle Investigator (PI), industrial supervisor and any other industry experts who will be engaged throughout the project.

- Provide supporting evidence in the form of extracts from SLC T-BURD, NDA 5-year plan or other SLC document demonstrating the skills need.

This response will contribute to 35% of the overall score weighting.

(0) No Evidence or very poor

- The response provides no information as to how the research will fill an identified skills gap relevant to the NDA mission.

(1) Poor

- The response doesn't get across the nature of the skills or capability that will be developed by the proposed PhD research project.

- The response provides limited information of how the research will develop skills that can fill a gap identified within the NDA group.

- No explanation of why a PhD research project is an appropriate way to develop the skills or how the wider supervisory team might benefit from this.

(2) Acceptable

- The response defines the specific skills and/or capabilities that will be maintained and/or developed during the research project.

- A description is given as to why these skills are relevant to the NDA Group but may lack detail as to the existing or future need for the skills.

- Some benefits of undertaking the skills development in the form of a PhD research project are described but may not be definitive.

(3) Good

- The response clearly defines the specific skills/capabilities that will be maintained and/or developed during the research project and the level to which it is expected the researcher will be elevated in their field.

- The response provides a description, with at least one credible example, of how the research will develop skills which are linked to specific skills gaps across the NDA estate.

- The proposal describes why a PhD research project is an appropriate way to develop the defined skillsets and the benefits over alternative training routes.

- The applicant gives some thought to how (at least some of) the skills/capabilities might be developed within the wider supervisory team.

(4) Excellent

- The response provides a detailed and explicitly defined description of the skills/capabilities that will be developed during the PhD research project and of how the researcher will attain (at least) national level distinction in their field.

- The response defines, with credible supporting evidence, how the developed skills are linked to specific existing/future skills gaps across the NDA estate and may go beyond published information to define as-yet unidentified but credible skills and capabilities needs.

- Peripheral skills that will be developed by the PhD research project are defined along with their relevance to the NDA mission.

- An explanation is provided as to how the wider supervisory team's skillsets would be developed.

- The response considers at a high level how follow up research could increase the embedding of skills within the NDA estate. This could involve opportunities for commercial investment, innovation funding or SLC investment.

3) Integration of output with NDA group

This is a question relating to how the outputs of the research will be integrated within the NDA group. Response will be limited to 300 words.

An ideal response will:

- Describe what will be done by the researcher and academic PI to ensure that the learning from the project is incorporated into the overall body of decommissioning knowledge.

- Is visible to, and accessible by, interested parties within the NDA group who, for example, are unlikely to have access to academic journals.

- Is visible to, and accessible by, the wider decommissioning community (e.g. other academics, industry supply chain).

- Describe how the work will be made accessible to and/or could be applied by those at "the coal face".

Applicants who have not previously worked with the NDA or with partners supporting the NDA mission are advised to seek support from industry experts to help complete this section. The supplementary information that accompanies this call will provide some guidance on the dissemination events that are held as part of the NDA's Direct Research Portfolio.

This response will contribute to 15% of the overall score weighting.

(0) No Evidence or very poor

- The response does not answer specific question or provides no information of how the research outputs will be integrated with the NDA estate.

(1) Poor

- The response provides only limited evidence of how the research will be disseminated generally.

- The response does not make clear how those with limited/no access to academic resources might gain access to the information.

(2) Acceptable

- The response provides information about how the research will be shared, for example in scientific/technical journals.

- The response provides some detail of how the project will exploit some dissemination routes that are relevant to the wider NDA group such as the annual PhD research seminar or similar events.

(3) Good

- The response gives examples of how the research outputs will be integrated into the general body of scientific and technical decommissioning knowledge. These could include but are not limited to the NDA knowledge hub and technical papers presented at nuclear industry led conferences.

- The response includes a credible description of how industrial links could be instigated such as interaction with relevant industrial forums like NWDRF or other nuclear industry events.

- There is evidence of consideration that the engagement will go beyond links built with the industrial supervisor.

(4) Excellent

- The response provides specific examples of dissemination routes that span the academic, scientific and nuclear decommissioning spheres, and describes why these routes are important and relevant to the NDA mission.

- There is a well-thought-out plan as to how the industrial links will be managed including a plan for dissemination to NWDRF research forums or relevant industrial forums or events.

- A secondment opportunity to a relevant NDA group company or supply chain organisation may be suggested, along with a credible implementation plan.

- There is a high-level plan to engage with industry on follow up work that will embed the research across the NDA estate. This could include awareness of industry supported innovation funding, plans for training or engagement events.

4) Project management

This question covers the project delivery. Response is limited to 200 words, with additional boxes provided for project finances.

An ideal response will:

- Include an approximate breakdown of costs to the nearest £1k showing how the funding will be split between labour, equipment, and consumables etc.

- Incorporate a project plan/Gannt chart showing the durations of the key phases of the work and identifying key milestones and deliverables.

- Identify any additional input/time/resources that would be required from the NDA group to support or enable the project. This excludes the industrial supervision cost, but should include T&S considerations to allow the student to comply with the NDA PhD supervision programme, i.e. annual site visit to a UK nuclear site (assume Sellafield for planning purposes), annual visit to the PhD seminar (usually held in Manchester).

  - An example would be a request for security clearance to handle sensitive information. A further example would be to sponsor a visit to a site license site.

- Identify any major risks to the research and associated mitigation that can be considered against these risks.

- Demonstrate value for money for any 'large ticket' items required to deliver the research, including in-kind access to equipment where appropriate.

- Itemise any leverage associated with the research. This can include use of existing facilities, in-kind support from other areas/projects, use of NNUF or other national infrastructure.

- Demonstrate that any proposed active work has been discussed in advance with the relevant facility owners/operators and is feasible within the bounds of the proposal.

  - Any details on active work will be described in an optional 250-word field on the form.

Applicants should provide a Gantt chart (or similar) as an attachment to support their application.

This response will contribute to 15% of the overall score weighting.

(0) No Evidence or very poor

- The response provides no detail on how the research project is to be managed.

- No justification of project finances.

(1) Poor

- Limited justification of project finances is provided with no or insufficient cost breakdown.

- Milestones/deliverables/projects phases are not defined.

- Risk analysis/mitigation is insufficient/not defined.

(2) Acceptable

- Major costs are itemised and justified.

- Key project milestones/deliverables/phases are identified and logical.

- Some risks are identified although mitigation may be lacking.

- The application may recognise that NDA group or its supply chain organisations input would be required to undertake the research but lack understanding or detail.

(3) Good

- A clear and appropriate cost breakdown is given with justification of major items.

- Project milestones/deliverables/phases are identified and logical and supported with a Gantt chart (or similar).

- Key risks are identified, and credible mitigation is given.

- Any input required from the NDA group is considered and a reasonable estimation made as to the extent of this input.

(4) Excellent

- A thorough and appropriate cost breakdown is included with underpinning evidence (e.g. links to examples).

- Key risks are identified, and credible mitigation is given. These risks will be linked to the relevant project milestones/deliverables/phases.

- Opportunities are highlighted and linked to specific milestones in the project plan/ Gantt chart.

- Any input required from the NDA group or other external bodies such as a supply chain organisation is recognised and defined, and evidence provided that the applicant has had up-front discussion with the appropriate people to allow for this input.

- If applicable to the response, proposed active work is appropriately scheduled and associated risks to the project schedule recognised and mitigated. This will not be assessed if it is not applicable to the response.

Attachments

The applicant will be allowed to upload images to enhance the proposal. These can include:

- Images, diagrams that explain the research or technology element.
- A Gannt chart or equivalent to support the project management section.

Scoring and feedback

Feedback to applicants will be in the form of written justification for the assessment against each of the scored categories.