UK Research and Innovation

Opp1399 – Advancing solutions for critical mineral production and recycling – webinar question and answer document

A webinar for potential applicants to the "Advancing solutions for critical mineral production and recycling" call was held on Tuesday 3rd November 2026. The webinar provided information on the funding opportunity and an opportunity for attendees to ask questions. This document provides the answers to questions submitted by webinar attendees.

If you have any questions that have not been answered within this document, please contact EarthEnergyResources@nerc.ukri.org.

Questions and answers

General information and application process

1. Will the webinar and slides be available after the event if I would like to view again?
   Yes, the webinar was recorded and is viewable here.

   A link to the webinar recording and slides can also be found on the funding opportunity page under Additional Information.

2. Does the rule on demand management apply to the person within the organisation applying for this call or to the overall number of submissions from an organisation?
   Demand management for this call is applied at an individual level, so an individual researcher can be involved in no more than two applications; only one of these can be as project lead. There isn't a limit to the number of applications that can be submitted per institution. However, we do encourage institutions to use an internal quality assurance process to help ensure proposals are appropriately aligned with the scope of this opportunity and to contribute to efficiency within the assessment process and avoid very low success rates. In the event of this funding opportunity being substantially oversubscribed as to be unmanageable, we reserve the right to modify the assessment process as needed, for example, by adding a sift process prior to assessment. This would be decided after the Notification of Intent deadline on 1st December.

3. Is there a possibility to extend the deadline to avoid Christmas and New year closedowns?

   Although we recognise that we are closing the call shortly after the Christmas break, we have ensured the call is open for just under 3 months overall, (or 2.5 months when accounting for the Christmas break).

   To ensure that this part of the overall investment aligns with other calls and opportunities within the programme, we need projects to start by the beginning of May 2027. We are therefore unable to extend the deadline as we also need to ensure sufficient time for the assessment process and to notify the successful projects and set up grant agreements ahead of the project start date.

4. A December 2027/January 2028 phase 2 application deadline means that phase 1 projects will only be running for around 8 months before the phase 2 application will need to be submitted. Can you comment on this?

   This is correct, projects will need to apply for phase 2 towards the end of month 8 of phase 1. The phase 2 assessment process is likely to include an interview, allowing assessors to consider any additional evidence, results, or progress generated between the submission of the phase 2 application and the interview panel.

   Phase 2 will start in April 2028, allowing a short overlap with phase 1. This is intended to avoid disruption caused by project or staff contracts ending before phase 2 commences.

   For projects that do not continue to phase 2, the period following submission of the phase 2 application will be used to complete remaining phase 1 objectives. This may include activities such as developing alternative investment propositions, preparing follow-on funding applications, or undertaking other steps to support future project development and commercialisation.

Project delivery and staffing

5. Are there specific requirements for project lead eligibility?

   To be a project lead or co-lead, applicants must meet the UKRI Individual eligibility criteria. This includes that they must have an employment contract or substantial relationship with a research organisation eligible for UKRI funding that exists before the grant starts and extends at least until the end date of the grant (project lead) or until the final day the individual is supported by the grant (project co-lead).

   A project lead/co-lead must:

- demonstrate the expertise, skills and capability to deliver the proposed application
- show how they will achieve the proposed outcomes, including appropriate project management, leadership and knowledge

6. Could a UK academic based overseas with an Honorary academic post in a UK university, lead a project?
   If not employed by a research organisation eligible for UKRI funding, applicants must have an existing and ongoing relationship with the submitting organisation, that demonstrates a formal commitment – this includes an honorary position. The lead must be able to conduct research as if they were an employee, including access to management and infrastructure support.

7. Could a PDRA with relevant expertise and experience lead?
   To be eligible as a project lead or project co-lead, the PDRA must meet the UKRI Individual eligibility criteria and have an employment contract or substantial relationship with a research organisation eligible for UKRI funding that exists before the grant starts and extends at least until the end date of the grant (project lead) or until the final day the individual is supported by the grant (project co-lead). Project leads and co-leads must:
   - demonstrate the expertise, skills and capability to deliver the proposed application
   - show how they will achieve the proposed outcomes, including appropriate project management, leadership and knowledge

8. Are people with fixed-term position eligible to apply?
   For fixed term contracts, to apply as a project lead or co-lead the contract must last:
   - at least until the end date of the grant (for project leads)
   - until the final day the individual is supported by the grant (for project co-leads)

9. Project must start no later than 3rd May, but that does not leave much time for the recruitment of a post-doctoral researcher. Could you please advise on whether it would be acceptable for them to start at a later date, if we can demonstrate launch of the project by 3rd May?
   We recognise there is limited time between the anticipated notification of application outcomes and the required project start date. Post-doctoral researchers may begin after the project start date, provided there is still sufficient time to achieve the project objectives within the 12-month project duration from the 3rd May. Due to the phased nature of this opportunity,

project extensions or delays are likely to impact applications for phase 2 and the likelihood of securing phase 2 funding.

10. Would you expect a single university application or multiple organisations collaboration?
    The composition of the research team is up to the applicant, provided it brings together the relevant expertise required to deliver the proposed outcomes. This expertise may be drawn from within a single organisation or through collaboration across multiple organisations. Applicants should clearly demonstrate within their application that the team has the appropriate experience, skills, and balance of expertise needed to successfully deliver the proposed work.

Scope and strategic fit

11. Do you only consider proposals that fall within NERC's remit, or would you also consider proposals beyond this, including those within EPSRC's remit?
    This investment is part of the UKRI CMR2i programme funded through the cross UKRI Advanced Manufacturing priority programme. Although NERC is leading this opportunity on behalf of UKRI, the remit is not restricted to any individual council. To meet the requirements of the opportunity it is likely that applicants will need to draw on disciplinary expertise that span more than one UKRI council remit.

12. Is there a geographical focus on the resource base (ore, waste)? Should the focus be on UK resources only?
    Projects should focus on mineral resources and capabilities where there are clear strategic and economic opportunities for the UK to strengthen domestic supply chains and develop, expand or retain key stages of the critical minerals value chain within the UK.

    Projects must deliver direct and tangible benefit to the UK, for example through creating new market opportunities, building domestic capabilities for example for production and recycling, or supporting onshoring of key stages of the value chain. This doesn't limit the geographical location of the resource base itself, but your application must clearly justify the choice of resource, the associated UK market opportunity, and how the proposed work will generate meaningful benefits for the UK.

13. Would a phase one project that builds and validates underlying models with lab-scale trials and real data, rather than a full digital twin, be in scope as proof-of-concept?

Phase 1 is intended to support the exploration, testing and proof-of-concept demonstration of novel solutions. A project that develops and validates underlying models using laboratory-scale trials and real-world data, could be within scope, provided it shows how the work addresses a UK critical or growth minerals challenge and could support responsible and efficient extraction, processing, reprocessing, recovery, re-mining or recycling of critical or growth minerals, and also demonstrates a clear UK market opportunity, a specific technological, or capability gap and a credible route to impact. Applications should clearly justify how the proposed activities will establish proof of concept and support progression towards impact and higher TRLs.

14. Please could you clarify whether the scope is limited to recycling of minerals, or would recovery of recyclable materials from waste also be in scope?
    Projects may focus on the recovery, reprocessing, reuse or recycling of critical and growth minerals from waste streams, provided they align with the scope of the funding opportunity and deliver clear benefits to UK critical mineral supply chains.

15. Would a laboratory-scale proof of concept using controlled feedstocks be sufficient for phase one, or is demonstration using actual industrial feedstocks expected?
    A laboratory-scale proof of concept using controlled feedstocks could be sufficient for phase 1, provided the proposed work can generate robust evidence of technical feasibility. Applications should clearly justify their chosen approach and explain how the proposed activities will generate meaningful evidence to support further development, reduce key uncertainties, and strengthen the case for progression towards deployment. This includes demonstration of how the results obtained from controlled feedstocks will be relevant to real-world operating conditions.

16. Can you define "emerging deposit types"?
    For the purposes of this funding opportunity, emerging deposit types are mineral resources that are not currently exploited at significant commercial scale, but which have the potential to become viable sources of supply. This may be due to advances in geological understanding, exploration methods, extraction or processing technologies, changing market conditions, or evolving environmental and sustainability considerations.

17. Could you please provide a brief comparison of this funding call from the previous UK–Canada Sustainable Critical Minerals Research Partnerships (2025–2027)?

The UK–Canada Sustainable Critical Minerals Research Partnerships opportunity is funded through the International Science Partnerships Fund and focusses primarily on supporting international research collaborations between UK and Canadian researchers to address shared critical minerals research priorities around optimising efficiency and minimising environmental impact across critical minerals value chains.

In contrast, this opportunity is focused on accelerating the development of transformative solutions that can strengthen UK critical mineral supply chains and deliver direct economic, environmental and societal benefits for the UK.

This opportunity also places a stronger emphasis on understanding how proposed innovations could contribute to the development, expansion or retention of key stages of the critical minerals value chain in the UK, including extraction, processing, recovery, reprocessing and recycling.

18. Would isotopic separation be accepted as 'processing' within the scope and eligibility?

A project focussed on isotopic separation would be considered in scope so long as it is applied to a UK critical or growth mineral, aligns with the objectives of the funding opportunity and can demonstrate a clear benefit to UK critical or growth mineral supply chains.

Applications should clearly demonstrate how the solution contributes to processing, the market opportunity or capability gap the solution could address, the potential economic, environmental or societal benefits and how the work could strengthen UK value chains or domestic capabilities

19. Would a project starting at TRL 2, aiming to demonstrate laboratory proof-of-concept for selective lithium separation and progressing towards TRL 4, be considered appropriate for phase 1?

A project starting at approximately TRL 2 and aiming to establish laboratory proof of concept and progress towards TRL 4 during phase 1 could be appropriate for this opportunity.

Selective lithium separation would be considered in scope, provided the project aligns with the objectives of the funding opportunity, and can demonstrate a clear benefit to UK critical or growth mineral supply chains.

Applications should clearly demonstrate how the proposed solution contributes to mineral processing, the market opportunity or capability gap it

addresses, the potential economic, environmental or societal benefits, and how the work could strengthen UK value chains or domestic capabilities.

20. If a mineral appears on the UK's growth minerals list, does that make it eligible for this funding?

    Yes, projects focussing on minerals appearing in either the critical or growth minerals list of the UK Critical Minerals Strategy are eligible for this funding opportunity.

21. Are there specific waste streams that phase 1 is focused on?

    We have not specified particular waste streams that projects must focus on. Applicants may propose work on primary or secondary resources, including emerging deposits, by-products, waste streams and legacy mine sites. Therefore, applicants could focus on any relevant waste stream containing critical or growth minerals, provided it aligns with the objectives of the funding opportunity and delivers a clear opportunity to strengthen UK critical or growth mineral supply chains.

    Applications should clearly justify the choice of waste stream, demonstrate the associated market opportunity or capability gap, and explain how the proposed work could generate economic, environmental, or societal benefits for the UK.

22. Would developing a domestic processing or refining capability using imported mineral concentrates be within scope, or must the feedstock originate in the UK?

    Projects should focus on mineral resources and capabilities where there are clear strategic and economic opportunities for the UK to strengthen domestic supply chains and develop, expand or retain key stages of the critical minerals value chain within the UK. The resource or feedstock does not need to originate in the UK. For example, proposals focused on developing domestic processing, refining, recovery or recycling capabilities using imported mineral feedstocks could be within scope, provided they deliver direct and tangible benefits to the UK.

    Applications should clearly justify the choice of resource or feedstock, demonstrate the associated UK market opportunity, and explain how the proposed work will strengthen UK capabilities, support domestic supply chains, or help onshore key stages of the critical minerals value chain.

23. Assuming the call is limited to minerals explicitly listed on the gov.uk website, is it possible to have a rare mineral without a current UK supply

assessed for inclusion on the critical mineral / growth mineral list for future calls? (example - tritium fuel recycling for UK fusion energy leadership)
For the purposes of this funding opportunity, we are using the lists of critical and growth minerals as included in the UK Critical Minerals Strategy. We are unable to comment on the assessment of minerals for inclusion on these lists. We will consider the inclusion of a wider range of minerals where relevant in future opportunities.

24. Would a project that upcycles mixed or downcycled alloy scrap containing critical and growth minerals (e.g., Al, Co, Cr, Ni) into high-value additive manufacturing feedstock count as "recycling" under this call, even though it keeps the elements in alloy form rather than recovering them as separate minerals?
Yes. Recycling projects do not need to recover critical or growth minerals as separate elemental products to be considered within scope. Projects that reprocess waste streams or scrap materials containing critical or growth minerals into higher-value products may be eligible, provided they demonstrate how the approach improves the recovery, retention, utilisation or supply of those minerals within UK value chains. Applicants should clearly articulate the relevance of the minerals involved, the benefits compared with current practice, and how the proposed solution strengthens UK critical mineral supply chains and supports Advanced Manufacturing priority sectors.

Industry engagement and project partners

25. Is an industrial partner required, and what level and type of industrial engagement is expected for phase 1 projects?
To facilitate progression from research to industry, projects are expected to include relevant industrial or other stakeholders as project partners. However, there is no prescribed level of industrial engagement for phase 1, and we recognise that the appropriate level of prior engagement will vary depending on the nature and maturity of the project.

As this is a pump-priming stage, applicants are not required to demonstrate extensive existing industrial partnerships from the outset. For earlier-stage projects, where the primary objective is to establish proof of concept for a new idea, industrial engagement may be more limited at the application stage, whereas projects that are more mature may already have established industry relationships and greater stakeholder involvement. There is no specific requirement for industry partners to undertake funded or in-kind R&D activities, and there is no expectation that applications with multiple industrial partners will be viewed more favourably than those with fewer

partners. Rather, the assessment will focus on whether the proposed stakeholder engagement is appropriate and proportionate to the project's objectives and stage of development.

Letters of support, commitments to provide samples, access to industrial waste streams, technical information, facilities, validation opportunities, or other in-kind contributions all represent valuable forms of engagement where they support delivery of the project and help demonstrate understanding of the market need and deployment context.

All applications should demonstrate a credible plan for engaging relevant stakeholders and explain how the proposed research addresses a specific technological, market or capability gap. Applicants should also show how stakeholder engagement will help shape the research, validate the opportunity, and support future adoption and deployment.

26. If project partners incur costs in supplying test materials to us - can we cover those costs from the grant?
    Project partners are expected to provide contributions to the delivery of the project and should not therefore be seeking to claim funds from UKRI. However, where there are specific circumstances where project partners do require funding for minor costs such as travel and subsistence, this will usually be paid at 80% FEC. Any applicable Subsidy Control regulation and HMRC guidance will also be taken into account which may affect the percentage of these costs that we will fund. These costs should be outlined and fully justified in the proposal.

Commercial participation and sub-contracting

27. Can a company participate in this programme while also receiving Innovate UK funding for related technology development, provided the projects have distinct work packages and there is no duplication of funded costs?
    Yes. A company may participate in this programme while also receiving funding from Innovate UK for related activities, provided there is a clear distinction between the projects and there is no duplication of funded costs or activities.
    Within this opportunity, companies would typically participate as project partners and would normally fund their own involvement in the project. Receiving separate Innovate UK funding therefore does not, in itself, preclude a company from participating. Applicants should ensure that the respective roles, work packages, and funding arrangements are clearly differentiated and that the same costs are not claimed from more than one funding source.

28. Is subcontracting permitted in phase 1 projects?

Subcontracting is permitted in this funding opportunity and will be subject to the procurement rules of the host organisation. All costs that support the delivery of the subcontract are eligible and will be paid at 80% FEC. Costs should be outlined and fully justified in the proposal. Subcontractors should not be added using any of the core team roles.

See below the subcontracting guidance from the NERC research grants and fellowships handbook:

77. NERC considers eligible institutions to be best placed to determine how their work is undertaken. If this involves sub-contracting aspects of the work to other organisations due to, for example, the lack of appropriate expertise or facilities in the collaborating organisations, this is acceptable. In such circumstances, NERC would pay the awarded eligible institution which in turn would sub-contract to the service provider as appropriate. Funds requested for sub-contracting should be included in 'Directly Incurred- Other costs' section and NERC will provide 80% of any eligible sub-contract costs. Organisations undertaking sub-contracting should refer to the Concordat to Support the Career Development of Researchers for information on the training and development opportunities that should be made available to researchers by employers.

78. An organisation will generally not be listed as a project partner and a sub-contractor. An organisation or individual can act as both a Project Partner and Subcontractor, however this must be fully justified as to why this option has been chosen over claiming the costs within the relevant partner organisation's and will be subject to peer review. This enables the organisation/individual to receive recognition as a Project Partner for the elements of their contribution to the project that is in an integral or meaningful capacity, which they wouldn't get if they were needing to be included only as a subcontractor.

79. As a rule, NERC would expect project partner related costs to be minor, where the project needs work to be undertaken that is more significant and includes costs other than travel and subsistence, then the organisation/individual to be contracted may need to be included as both a Project Partner and a Subcontractor. Subcontract services supplied by partner companies should exclude any profit element and be charged at cost. Where a partner is also a subcontractor within a project, it is important that a company in receipt of the project funding stays within subsidy control limits. An example of where dual roles might be required is when an

organisation or individual is giving to the project in kind but are also selected to deliver other work to the project involving non-minor costs to be covered via a subcontract.

80. Except in instances where the service provider is from the public sector, the conferring of any IP, author or other rights to it by the contractor in relation to the research grant application for which it was contracted to provide a service, is not permissible. The inclusion of an acknowledgement in any resulting material of the sub-contracted organisation's contribution to the research is however acceptable. Should there be an intimation or desire on the part of the contractor and/or subcontractor not within the public sector, for other than such an acknowledgement for example, co-author status on resulting publications, then the interaction between the parties concerned would be deemed to equate to a collaboration, in which case any costs incurred (either direct or indirect) cannot be met by NERC.

International collaboration

29. Is participation of overseas partners allowed?

International collaborators can be included as project partners on the grant. As project partners they would need to fund their own involvement in the project.

The exception to this is project co-leads based at a Norweigan institution – these can be included as an international co-lead, and receive some costs from the grant. This is because we have a specific agreement with the Research Council of Norway – UKRI and Research Council of Norway Money Follows Cooperation agreement.

In phase 2, we anticipate allowing international co-leads, where there is strong rationale for this developed during phase 1. Eligible international co-leads would be able to receive some costs from the grant. Details of this will be included in the phase 2 Funding Opportunity.

30. Can a research institution in Ireland receive funding?

This funding opportunity is open to organisations with standard UKRI eligibility. Check if your organisation is eligible. All other international collaborators (or UK partners not based at approved organisations) should be included as project partners.

31. Can we have an overseas (EU) university as a project partner and a subcontractor for their service (e.g., equipment, facility and expertise) in the project?

An organisation or individual can act as both a project partner and subcontractor, this must be fully justified and will be subject to peer review. This enables the organisation or individual to receive recognition as a project partner for the elements of their contribution which they wouldn't get if they were included only as a subcontractor. We would expect project partner related costs to be minor. Where the project needs work to be undertaken that is more significant and includes costs other than travel and subsistence, then the organisation or individual to be contracted may need to be included as both a project partner and a subcontractor.
An example is when an organisation or individual is giving to the project in kind but are also selected to deliver other work to the project involving non-minor costs to be covered via a subcontract.
For further information, see Roles in funding applications: eligibility, responsibilities and costings guidance – UKRI

Technology readiness and evidence requirements

32. Is the panel expecting phase-one projects to start at a particular TRL? What are the expected TRL ranges for phase 1 and phase 2?
    We have not specified minimum or maximum TRL levels for this funding opportunity and the starting TRL will not form part of the assessment criteria. As a general guide, we anticipate that phase 1 projects will begin between approximately TRL 2 to TRL 4 reflecting the focus on exploring, testing and demonstrating the technical feasibility of novel solutions. We expect that projects will progress their technology readiness during the course of phase 1 relative to their starting point. Therefore, we would expect that for phase 2, projects will start at a minimum of TRL 3/4.

33. Would proposals exploring an early-stage concept, supported by preliminary research evidence but without a demonstrated laboratory-scale proof of concept, be competitive?
    At the application stage, projects do not need to have already demonstrated laboratory-scale proof of concept. For earlier-stage concepts, phase 1 can be used to establish and validate proof of concept and generate the technical feasibility evidence needed to support further development.

34. How should applicants balance fundamental materials science with the commercial and socio-economic evidence in a 12-month pump-priming project?
    Within this 12-month pump prime project we are expecting projects to develop technical feasibility evidence for their solution as well as to understand the commercial, environmental, socio-economic and regulatory

evidence that would be needed to de-risk and potentially unlock future scale up and adoption. However, we are not expecting all this evidence to be developed during the 12 months, instead at the end of the 12 months we would expect projects to understand what the knowledge gaps and barriers are, and to have established a clear and credible plan for how they will develop the evidence to fill these gaps and overcome barriers.

35. How much improvement over existing technologies would you expect to see for a project to be considered genuinely transformative?

We have not defined a specific threshold of improvement that a project must achieve to be considered transformative. Applicants should clearly explain what improvement their proposed solution offers compared with current approaches and why that improvement has the potential to make a meaningful difference to UK critical mineral supply chains.

The key consideration is whether the proposed innovation could address an important technological, commercial, environmental, or capability challenge and overcome barriers that currently limit deployment or adoption. Applications should provide a clear and credible case for the transformative potential of the solution, and an explanation of the anticipated benefits and impacts.

Phase 2 progression

36. Could you please advise to what extent we should include details of the envisaged phase 2 in the phase 1 proposal?

We expect applicants to address the requirements and outcomes included in the phase 1 funding opportunity text. There is no expectation for you to included details of phase 2 plans within the phase 1 application as we expect that plans for phase 2 would develop through the course of phase 1.

37. What are the most important outcomes expected from phase 1 to demonstrate readiness for phase 2? In particular, will progression depend primarily on technical proof of concept, demonstrated improvements in recovery efficiency, environmental and economic viability, or evidence of industrial demand and scalability?

We anticipate publishing the funding opportunity for phase 2 in summer 2027, to give early sight of the requirements that phase 2 applications will need to address. Within the phase 1 funding opportunity we have outlined several areas which projects will be expected to demonstrate evidence of during phase 1. These are:

- The transformative potential of the solution;
- the potential for significant economic, environmental or societal benefits compared to current approaches;

- understanding of the market opportunity and a credible pathway towards adoption;
- identification of key technical, environmental, regulatory, socio-economic and operational uncertainties and evidence gaps together with a clear plan for addressing there;
- and a robust case for further investment, through a deliverable and ambitious phase two plan.

Details of these are included in the funding opportunity text. Progression to stage 2 will be a competitive process, and we anticipate being able to fund up to three phase 1 projects to progress to phase 2. To be competitive for phase 2, projects will need to demonstrate all five of the above areas included in the funding opportunity.