

Develop basic technologies in sensing and imaging  
Q&A

**Summary of Changes**

01.02.22 - Answers to Q16 and Q103 revised.

**Q&A**

Q1) Why aren't NERC involved out of UKRI?

A1) NERC have been involved the UKRI discussions about basic technologies and in the scoping of this call. They have not been able to commit to funding at this stage but proposals with relevance to the environment can still be included at the EOI stage and we are exploring options for NERC to consider things on a project by project basis.

Q2) Does the full project cost GBP225k include the equipment cost as well?

A2) Yes it does.

Q3) Is the call countable toward RUA rule?

A3) This call **will not** count towards EPSRC's Repeatedly Unsuccessful Applicants policy.

Q4) Can you be PI on more than one application to this scheme?

A4) You can only be PI on **one** application.

Q5) Would it be possible to identify two problem owners as well as multiple solution providers?

A5) If there are two distinct problems with the same potential solution that would be acceptable; however, if they were two distinct problems with two distinct solutions then we would expect two separate proposals.

Q6) Is there a limitation on the number of applications per institution?

A6) At the EOI stage there is not - depending on demand at this stage we may require institutions to prioritise.

Q7) Are Mathematics and Statistics classified as different research areas?

A7) You would have to consider why this could not be done through standard funding mechanisms. It's not as clear cut as departmental boundaries but a bit more information to the call inbox would allow us to decide.

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Q8) What is categorised as 'basic technologies'? New hardware? Or existing hardware with new software?

A8) It will depend on the specific problem/solution, but we will be looking for an aspect of novelty in the development of the sensing or imaging and the application of that novelty to another discipline is key.

Q9) Can I have co-PI from outside UK, example Japan or US?

A9) No, they must be UK based

Q10) Will applications with more than 2 Co-Is automatically be rejected, or are there any exceptions?

A10) There is a limit of two co-investigators per application and it must be clear from the application what contribution these co-investigators will make to the success of the application.

Q11) Is there any filtering of proposals from the EoI stage/invites to full proposals?

A11) Those that are ineligible or out of scope won't be taken through. On demand management if there is massive over-subscription reserve the right to introduce some demand management at the institutional level between EoI and full proposal stage.

Q12) Can we have industrial partners as co-problem owners

A12) In principle, yes, they can be, but they will not be able to receive funding from the call.

Q13) Will there be further calls and, if so, when will they be announced?

A13) The recent Government spending review will provide a three year settlement for UKRI and allocations will take place in the recent months. We cannot make any commitments at this stage about what this might mean for future basic technologies activities.

Q14) With the call led by BBSRC, are non-biological sensors etc still appropriate?

A14) Yes, absolutely – BBSRC are leading the call from an administrative point of view. The remit of the is defined by the broad range of Councils who are involved in it.

Q15) Is the 2 cols per application in addition to the PI?

A15) Yes, they are in addition to the 2 PIs.

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Q16) Is the eligibility criteria same for co-PIs and co-Is?

A16) Yes.

Q17) To confirm, does the workplan need to be included within the 8 page Case for Support, or as a separate document like a standard UKRI proposal?

A17) included within the CfS

Q18) Are sub-contractors allowed?

A18) Standard grant rules for sub-contracting would apply. We would want to know what the sub-contracting was for.

Q19) Can the main research be software for sensor fusion using existing sensors? Can the main research be software to analyse data from existing sensors?

A19) We would also need to know that the problem side of this and that it was in a different discipline where the application of this software would be novel.

Q20) Is the expression of interest going to be used to manage demand and if so how?

A20) If the call is over-subscribed then UKRI may look to Research Organisation to prioritise certain EOIs prior to full stage.

Q21) Will involvement of application-relevant companies seen as beneficial to applications?

A21) There is no requirement for industrial collaboration and no criteria on which it is intended to assess this aspect. As with all funding opportunities, collaborations that are appropriate and beneficial to the project would be encouraged.

Q22) How come the problem owner ought to be PI, as they may have a limited view to the solution? Does that imply there has to be a large fraction of funding assigned to the problem owner side?

A22) The solution provider may well be the bulk of the funding, but the problem owner needs to be central to the project. There is no expectation on what the split of resources should be between the problem and the solution elements of the project.

Q23) Can the award fund one or two postdoctoral researchers? Is this an eligible cost?

A23) funding postdoctoral researchers is an eligible cost

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Q24) What counts as an 'incremental adaptation'?

A24) The level to which the technology already exists and where the novelty in the basic technology and its application, towards the problem lies.

Q25) Is there screening at the EOI stage, or are all applicants invited to full application stage?

A25) If the call is over-subscribed then UKRI may look to Research Organisation to prioritise certain EOIs prior to full stage.

Q26) "Interdisciplinary" is a very vague term- how "different" to the expertise areas of the "solver" and "solvee" need to be?

A26) This will depend on the 'problem' and 'solution' - if you have a specific project in mind, please contact the basic technology inbox with an outline of the problem and solution (and the areas they are in)

Q27) Are you looking for new hardware or algorithms?

A27) Both, depending on the problem and solution area. you may contact [basictechnology@bbsrc.ukri.org](mailto:basictechnology@bbsrc.ukri.org) with a summary of the proposed research if you require further guidance

Q28) Regarding the exclusion of incremental adaptations to pre-existing technologies, can you possibly elaborate/ give examples regarding what may be excluded?

A28) will be decided on a case by case basis. Please write to the inbox

Q29) From the website: "an individual may apply only once as a principal investigator (problem owner or solution provider) or once as a co-investigator" - does this mean I can be a PI on one grant and a co-I on another, or I can only be on one grant total, either as PI or co-I?

A29) You can be on one grant as PI and **only one other** as a co-I.

Q30) Can my spinout company be the industry partner or is that a conflict of interest?

A30) If you are intending to be a PI/co-I alongside your spin-out company then you will need to contact us to discuss how the company will be involved.

Q31) Can you have joint owners of the same problem? That would mean 3 (or 4) co-PIs? Equally can the owners of the solution have two co-PIs?

A31) So each application needs to have two PIs and two CoIs may also be included, so a maximum 4 person team

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Q32) Is there a maximum number of applications allowed from the university (not necessarily the same applicant team)?

A32) There is no current limit. However, subject to demand at EOI stage we reserve the right to ask universities to prioritise.

Q33) Can the Co-PIs be at the same institution (different disciplines)?

A33) Yes, the two Co-PIs can be at the same institution, but must be working in different disciplinary areas

Q34) what are the criteria for shortlisting EOI and invite applicants to submit a full application?

A34) EoIs will be sifted on the basis of the eligibility criteria, which are in the call specification.

Q35) You do not want research that already has proof of concept. How far along do you expect this call's research to get to? Pre-proof of concept?

A35) We are looking to support high-risk, high-reward projects with little or no preliminary data exists. We are expecting novel problem solutions which accelerate researchers' ability to measure and model the world around us

Q36) Thanks for the clear presentation. More definition about @different research areas',

A36) Thinking about the breadth of remit of the call we are looking for problems that may arise in one "council's" domain that could be solved by technology developed in another's domain is at the heart of what we're trying to do here. It's not as prescriptive as that but we are looking for things that couldn't be done through other mechanisms so different disciplines from within the same council domain can be considered but the novelty will be important.

Q37) Can co-PIs be from the same institution?

A37) yes

Q38) Are facilities such as the European XFEL and ESRF that are based in Europe but receive funding from the UKRI eligible to be partners in projects?

A38) STFC grants handbook states:

For STFC, in the case of CERN and ESRF applicants must be a scientist or engineer performing one of the following functions:

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research, development or professional work including academic study and/or supervisory responsibility  
leadership of research, development or professional work involving a wide range of academic study and/or strategic responsibility  
responsibilities of the highest level of scientific and/or management complexity, originality and wide distinction

In addition, the following criteria must be met:

All applicants should provide a covering letter to their research proposal stating confirmation that they meet the eligibility criteria as set down above.

An applicant's contract of employment must extend for at least the period of the grant for which they are seeking funds. The principal investigator need not be a UK citizen.

Q39) Mathematics would use mathematical analysis to investigate the unique solvability of the problem whilst Statistics would use Bayesian estimation methods to actually find the solution. Are these different research areas?

A39) please write an email to the inbox for more detailed response

Q40) How is this different from a standard mode grant, other than having a funding limit?

A40) This scheme is specifically targeted at interdisciplinary proposals, with a clear problem owner and solution provider, which is not seen in responsive mode.

Q41) How much money is available from UKRI for this call

A41) The total fund is £2,500,00; each award has a limit of £225,000 (Full Economic Cost)

Q42) "New collaborations and partnerships are encouraged, including across disciplines and sectors." Can you explain this? Can this be an SME?

A42) Yes, it can.

Q43) From the answer to whether maths and stats are seen as sufficiently different fields, it sounds like it could be worth checking whether your problem and solution are seen as in sufficiently different fields if in doubt. What would be the best way to check, e.g. can we ask UKRI concerning a specific proposal and how would be the best way to do so?

A43) I would suggest contacting the basic tech inbox with a one-page description to help with this.  
[basictechnology@bbsrc.ukri.org](mailto:basictechnology@bbsrc.ukri.org)

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Q44) Do you have an expected outcome of the research to be funded? You mentioned developing prototype hardware and finding preliminary data, but is there a particular minimum standard you would wish to see?

A44) No.

Q45) estimating resources/cost is required for the EOI, is that correct?

A45) no, not at this stage

Q46) So, is only one PI a problem owner and one is solution provider? Thinking of collab between music psychology and sport science (both = problem owners as would be performance related injuries in elite athletes and musicians). There would be another solution-provider therefore.

A46) If it's a single solution applied to both problems then this would be acceptable.

Q47) The proposal is included sensing in a novel robot for mechanical filed is welcome or not?

A47) A bit more information through the inbox would be needed [basictechnology@bbsrc.ukri.org](mailto:basictechnology@bbsrc.ukri.org)

Q48) If there is proof of concept of a type of imaging, but sensors proposed so far have a major deficiency, can a new sensor be developed with this scheme? Or does the fact someone tried to make a measurement using another sensor kill the novelty in the eyes of the scheme?

A48) Please submit this to the inbox [basictechnology@bbsrc.ukri.org](mailto:basictechnology@bbsrc.ukri.org) with a few more details we will be able to help.

Q49) Can Co-PI who is problem owner be paid on hourly pay as a consultant at partner institution (solution provider) instead via workload modelling

A49) No – standard grant costings should be applied.

Q50) Can one person be Co-Pi into multiple applications?

A50) No - an individual can be a PI once and a Col once

Q51) Is there a ballpark date for prioritisation/screening decisions at EOI to be announced?

A51) EoIs will be assessed as rapidly as possible, and we will aim to communicate decisions within a couple of weeks of the EoI deadline. We cannot be more precise at this stage because we don't yet know how many EoIs we may receive.

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Q52) Can problem owner and solution provider be in one Institute and CoI be from a different Institute?

A52) Yes, the problem owner and solution provider can be from the same organisation (provided they work in different disciplinary areas), and the Co-I can be from a different organisation to the Co-PIs.

Q53) Are costings required for the EoI?

A53) No costings are not needed for EOI stage

Q54) Where can we get the record video for this webinar?

A54) It will be added to the call page in the next few days

Q55) We are in the situation where we are 'problem owner' and we have been asked as 'solution provider'. Can we participate as both in independent proposals?

A55) One individual can only be Co-PI on one proposal. However, an institution can be involved in multiple proposals.

Q56) How will proposal review be performed. Peer review and panel, or just by panel? Do we know who will be on the panel?

A56) The proposal will be assessed exclusively by an expert specialist panel, there will be no additional peer review. In terms of the Panel, membership will be finalised once the funded call has closed

Q57) To which extent is the expectation that the technology enables solutions across disciplines? If the problem is identified by one 'owner', the solution might be relatively focused to the discipline of the owner.

A57) So long as the solution is coming from another discipline, the problem itself does not need to be solved over multiple disciplines.

Q58) What level of company participation would be inappropriate for this early stage research?

A58) Company participation would be accepted. It would be up to the applicant to determine and justify the level of involvement of the company within the proposal.

Q59) May an industrial partner be from outside the UK?

A59) Yes, although they will not be able to receive any direct UKRI funding

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Q60) Is incremental advancement from a publication point of view, or from an on-field application point of view (since publications can claim advancements which do not really impact an actual application).

A60) A bit more detail to the inbox is needed here: [basictechnology@bbsrc.ukri.org](mailto:basictechnology@bbsrc.ukri.org)

Q61) We have new way of measuring an old parameter (e.g. temperature) that will allow this measurement to occur in areas where it couldn't happen before. Does that count as enough novelty?

A61) We will be able to help you with remit questions related to specific proposals in the inbox. Please submit your question to [basictechnology@bbsrc.ukri.org](mailto:basictechnology@bbsrc.ukri.org)

Q62) This is going to be pretty hard on panels, to read and review each of the 8+5 pages for each submission. Are you going to divide the research areas into many panels?

A62) We are aiming to have a single expert panel to assess all the applications for the call, as the call has a single funding pot of £2.5M. Panel membership will cover all of the research areas in which applications for the call are received.

Q63) How important is it to consider the social/ethical implications of engineering solutions we're proposing? Or is that for follow-on funding after proof-of-concept is demonstrated?

A63) You should consider these at the earliest possible opportunity. Within the funding envelope here you may be constrained in what you can do about it, but you should at least consider it at this stage.

Q64) re. current question...breadth of project....Has there been previous calls in this remit? Some examples would be good.

A64) This is a new call with new structure in terms of problem owners and solutions and therefore we do not have any previous examples related to this call.

Q65) From what was said earlier, do I infer correctly that you were not expecting demand management by institutions prior to the EoI stage?

A65) this is correct, although depending on the number of EOIs received, we may implement some institutional demand management

Q66) Does Problem owner need to have track record of publications in the area, is this favourable criteria

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A66) no, we will not be asking for a track record as part of the application process - only a capability to deliver/resume for researchers document is required here.

Q67) This call is for developing "Basic Technologies" and is promoting high risk/high reward projects. The outcome has to be a TRL3 or TRL1? Thanks.

A67) We do not prescribe the TRL within which the outcome has to be.

Q68) You do not want research that already has proof of concept. How far along do you expect this call's research to get to? Pre-proof of concept?

A68) This won't be prescribed in the call.

Q69) Earliest start date is Aug 2022? What is the latest start date for funding?

A69) We expect projects to start in August 2022, or not long afterwards. However, we will consider individual circumstances, if there is a reason why the project cannot start at that time.

Q70) Is preliminary data necessary to be included in the proposal?

A70) This call is for high-risk, high-reward projects with little or no preliminary data, so no is prelim data necessary (or expected)

Q71) Considering the timeframe for EOI, is there a mechanism/forum for matching problem owners with solution owners?

A71) not for this call, although this is something that we would like to build into potential future opportunities.

Q72) Can one person submit into multiple applications as Co-Pi just at EOI stage?

A72) An individual can be a PI on one application and a CoI on one separate application, both at EOI and full submission stage. This is for the Research Councils to manage demand

Q73) Can NHS be regarded as Problem owner

A73) NHS bodies that are research active are eligible to apply as PI or CoI so would be eligible as problem owner or as solution provider for this call. Note this is updated guidance since the webinar.

Q74) Can project innovate on the algorithmic side, not the actual sensors? we will be using existing sensors, but very different solutions.

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A74) If you provide [basictechnology@bbsrc.ukri.org](mailto:basictechnology@bbsrc.ukri.org) with a brief summary of the problem and solution, we can advise further

Q75) Can the solution provider be an external SME? with the solution needer being an academic in a university?

A75) We are unable to provide funding to SMEs directly, so industry can be involved but they can't receive funds from this call

Q75) What is the inbox address to send the information?

A75) [basictechnology@bbsrc.ukri.org](mailto:basictechnology@bbsrc.ukri.org)

Q76) Can we have two solution PI's? For example, if we have a problem that can only be solved by two people from separate disciplines collaborating to make a new technology, then can they both be the solutions PI, or would one have to be listed as a co-I?

A76) Formally they would have to be listed as a co-I.

Q77) How many example applications should e.g. the sensor solution demonstrate? If the sensor solution demonstrate only one example application, will the project still fall within the funding remit.

A77) So long as that one application is in a different discipline that would satisfy the call requirements.

Q78) Do you assess the proposals based on the impact of the problem or novelty of the solution? Which one is more important in this call?

A78) The assessment criteria are published on the call page, and they are:

scientific and technical excellence

strategic value

social and economic impact

capability to deliver

environmental sustainability

These criteria are not weighted, and a fundable application is expected to fulfil all of these.

Q79) Can DSTL be a partner?

A79) As a PSRE DSTL are eligible to apply as PI or CoI so would be eligible as problem owner or solution provider.

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Q80) Can the co-I's be in the same department or would this be seen to diminish the "different fields" aspect? My department is interdisciplinary and contains physicists and biomedics for example - would they be seen as the same because they are in one department?

A80) it will really depend on the problem and solution - if you contact [basictechnology@bbsrc.ukri.org](mailto:basictechnology@bbsrc.ukri.org) with a brief outline we can advise further

Q81) If not problem owner, Can NHS be regarded as CoI? You might have answered already can CoPI from same University?

A81) NHS bodies that are research active are eligible to apply as PI or CoI so would be eligible as problem owner.

Q82) Will this Q&A be made available in writing?

A82) Yes it will be on the call webpage ASAP.

Q83) but DSTL is listed as eligible for funding: <https://www.ukri.org/apply-for-funding/before-you-apply/check-if-you-are-eligible-for-research-and-innovation-funding/eligible-public-sector-research-establishments/#chapter-list>

A83) This is correct and A79 has been amended to reflect this recent change in the eligibility of PSREs for UKRI funding.

Q84) Do the industry partners need to be UK based or could they be from outside the UK?

A84) They can be from outside the UK – the same rules apply as with UK based industry partners. There may be some additional issues around trusted research as well that may need to be factored in.

Q85) What is the acceptable previous level of funding on a proposed project? Say if seed funding had been obtained to get preliminary data?

A85) Looking for projects that don't have much in the way of previous data so the extent to which seed funding has progressed the technology would determine its eligibility here.

Q86) I am confused by the CoI /Co-PI / PI terminology. Can you clarify please?

A86) For this call, each proposal should have two Principal Investigators. They are the Co(joint)-PIs. One should be the problem owner, and one the solution provider. Co-Investigators are optional (up to a maximum of two), and their role is as per a normal funding application.

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Q87) Is taking an existing imaging technology, developing it so it images something new, and applying this solution to a different field in scope? Or would this be considered incremental?

A87) In principle this would be in scope, but it depends on the degree and novelty of development that is needed in order to image something new.

Q88) What is the link to the call page?

A88) The link to the call page is <https://www.ukri.org/opportunity/develop-basic-technologies-in-sensing-and-imaging/>

Q89) Does the problem owner need to receive funds? I am still confused that researchers with NHS trusts cannot count as a PI in this call. It seems important in what you are looking for.

A89) NHS bodies that are research active are eligible to apply as PI or CoI so would be eligible as problem owner.

Q90) Is the recorded video going to be available?

A90) Yes

Q91) Will the recorded video be uploaded on the page?

A91) Yes

Q92) The call is for high risk basic ideas that may not have a significant commercial potential at this stage. Is this the case?

A92) Yes

Q93) Can we hire postdocs?

A93) Yes

Q94) So is it ok to include PIs or CoIs at no cost, with majority of funding to fund a researcher

A94) That would be a local decision for the institution – UKRI would not require that.

Q95) What will be next after successful application? Another similar call with a different level?

A95) This will be dependent on spending review allocations.

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Q96) Can we hire PhD students from outside of the UK using this grant?

A96) No. PhD students can not be supported from this call.

Q97) Can you have current PhD students in the application?

A97) No. PhD students cannot be costed on the grants

Q98) Can you have an existing PhD student work on this grant for the duration?

A98) Not if their involvement is on the critical path for project delivery.

Q99) How many applications would you expect given that there will only be 10-15 grants that will be successful?

A99) We do not know at this stage.

Q100) Does sensing include active data collections? E.g. advanced technologies for conducting surveys?

A100) This could be, but more information would be needed.

Q101) Can they be part of the research team but not part of the application? Or are students absolutely excluded from carrying out the work?

A101) They can't be on the critical path for project delivery. Whether they were given exposure to the project for some of the duration of their PhD would be a local decision.

Q102) can there be more than two co-I in the EoI?

A102) No, there is a limit of 2 Co-Is per project.

Q103) Does the project description (Nov 30th) need to be 'identical' to the final submission in March 2022? How much could it change?

A103) It does not need to be identical, but the nature of the problem needs to be the same.

Q104) Would different disciplines within the same sector meet the criteria? E.g. conservation and archaeology within the heritage sector?

A104) Yes, provided the problem owner and solution provider are from different disciplines they can be from the same sector.

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Q105) Can a proposal be from within EPSRC but will influence other remits.?

A105) Yes.

Q106) We received a small grant (of about £10k) for equipment to develop a really early test to see if this is a good idea... I think you said this might be an eligibility issue?

A106) What did the test tell you, how far did the £10k develop the technology is what we would want to know, rather than there being a specific level of support that would exclude the project.

Q107) does problem owner must be a co-PI?

A107) Yes.