UKRI Artificial Intelligence Centres for Doctoral Training funding opportunity 2023

13 January 2023 Webinar outputs

Contents

Introduction

This document details the outputs of the webinar held on 13 January 2023 to support the UKRI Artificial Intelligence (AI) Centres for Doctoral Training (CDT) funding opportunity. The webinar recording and slides have also been published.

The EPSRC CDT funding opportunity webinar outputs may also be helpful to applicants to the UKRI CDTs in AI funding opportunity as the two funding opportunities complement each other. Proposals to both funding opportunities should be costed in the same way.

CDT set up

1. Is it allowed to name a person as co-PI in the case (even if it is not an option in JeS), in addition to the named PI?

Yes, and how the CDT is managed it should be detailed in the case for support.

2. Can university PIs only apply for UKRI CDT?

Lead organisations must be eligible for URKI funding, have a track record in doctoral training, and already have suitable arrangements in place to award doctoral qualifications. PIs must be from an eligible lead organisation and be eligible for EPSRC funding. EPSRC eligibility rules are used for all applicants across UKRI for this funding opportunity.

3. The funding opportunity says "a critical mass of supervisors (around 20-40)", but several current existing AI CDTs have much more than 40 named supervisors. This is desirable for interdisciplinary CDTs where supervisors from different disciplines need to come together. Can you explain to what extent the range 20-40 is strict?

The range of 20-40 supervisors is intended to be a minimum number to support the expected cohort size. There is no maximum number of supervisors that may be involved in a CDT.

4. Do we need to provide supervisors names in the outline proposal?

Only the core management team should be named as PI and co-Is on the proposal. Potential supervisors may be named in the outline case for support but there is no requirement to do so.

5. Are all PhD supervisors part of the co-investigators? Potentially there will be more than 10 investigators is supervisors are accounted.

No, only the core CDT management team should be named as PI or Co-Is.

6. What is the UKRI's expectation on gender balance and other quantitative indicators on EDI aspects about the management team and named supervisors?

UKRI has not set a specific expectation as what is appropriate may differ between areas of research. CDTs should ensure they are taking EDI into consideration in all areas of the centre.

7. Is it possible for teams from different universities with similar expertise to collaborate on a CDT proposal? For instance, can two Computer Science departments from two universities collaborate on one proposal?

Yes. One reason for doing this may be to meet UKRI expectations regarding each CDT having a critical mass of PhD supervisors. Depending on the scope of a CDT this may not be possible in a single organisation and therefore collaborations between departments of similar expertise might enable applicants to meet this expectation.

8. *Our consortium is considering two approaches, one very interdisciplinary, and one quite focussed on a small number of subject application areas. Would UKRI consider outline cases for both scenarios from the same team, or do UKRI require us to decide on a particular approach now?*

The same team may submit two different CDT outlines, but applicants should consider what they would do if both proposals were successful. Are they able to commit to both CDTs? Multiple submissions should also ensure they fit within the allocated number of applications permitted per lead institution. For individuals, UKRI will only fund up to 100% Full Time Equivalent (FTE) of someone's time so if they have other UKRI grants they should consider what % of time they are requesting funding for on each proposal and the totality of their time committed.

9. *Is there a limitation on many how universities can collaborate on a CDT? Should they be geographically in the same location?*

There is no limit on the number of eligible organisations that can collaborate on a CDT proposal. There is also no requirement for collaborating organisations to be in the same location, though geographically distributed CDTs should consider management and assurance of building and maintaining the required cohort effect.

10. *Is there any value in promoting the 'place' agenda beyond the proximity of the HEIs?*

UKRI will consider the balance of the portfolio when deciding which proposals to invite to full proposal. While this will focus on priority areas it may also include geographical diversity- though this should be interpreted in terms of how the investment will affect and work across locations and partners across the UK, not necessarily the geographical location of the host institution.

Leverage and partnerships

Leverage expectations

11. *Can you share the sense of what the leverage percentage expectations are for partner/university financial commitment to the CDTs? 10% 20%? 50%?*

There are no specific leverage expectations at the application stage, outline or full proposal. We do expect that successful CDTs will show engagement and buy in from partners, but do not want to mandate a specific level of monetary requirements given the diversity of research and potential partners across the remit UKRI. We will work with CDTs to realise additional leverage throughout their lifetime. As a guide, previous CDT investments typically attracted a 20-40%

leverage rate against the UKRI investment, and these figures formed the basis of our discussions in the business case for this investment. Leverage of this level may be easier to achieve in some areas than others.

12. Is it expected that the CDT will evolve and need to draw in more external funding, or that it is simply not such a big priority at the outline stage to pin down contributions?

It is expected that CDTs will work towards meeting UKRI leverage expectations over their lifetime.

13. Is there any requirement for industry partnership?

There is no requirement for industry partnership, however there is an expectation of user engagement and leverage of UKRI funds. Leverage may be provided by host organisation(s) and/or industry, civic or other user partners.

14. If an industrial partner can provide substantial "in kind" support, but little or no cash contribution, would that necessarily be a problem? Will cash contribution weighted more than the in-kind contribution?

No. What will be important is the strength of partner co-creation and commitment, including the importance of the research and training to the partner as well as how the involvement of the partner benefits the training experience of the students.

15. Increasingly AI is extremely compute intensive. I assume compute hardware costs are not eligible in this call. How does UKRI recommend institutions meet the (substantial) extra compute requirement that AI CDT students bring?

Equipment over £10,000 in value (including VAT) is not available through this funding opportunity. At the full proposal stage, smaller items of equipment (individually under £10,000) should be included in the 'other costs' heading.

Individual items of equipment below £10,000 (including VAT) can be included in proposals. The £10,000 threshold applies to individual items of equipment. Where items costing £10,000 and below are to be combined into one asset costing more than £10,000 these items cannot be included.

Where possible researchers are asked to make use of existing facilities and equipment, including those hosted at other organisations. Facility access where this is linked to conducting the research of the project may be included in the cost of RTSG.

Contributions to compute by host organisations or project partners would be considered as in-kind leverage.

16. Do all industry partners need to be signed up when the proposal is submitted or can they be recruited during the CDT?

We encourage the involvement of additional partners during the lifetime of the CDT. UKRI is exploring how we can facilitate engagement with potential partners during the full proposal stage.

17. Many potential partners (understandably) will not be able to commit at the outline stage, can you advise what is expected? Is an indicative interest sufficient?

Confirmed project partner contributions are not required at the outline stage. Details such as the leverage model, your ideas, vision and the team who intend to deliver it should be provided in the outline case for support at this stage. An indication of cash leverage is requested in the additional information form to give UKRI a better idea of expected leverage, and therefore how many CDTs UKRI's funding is likely to cover.

18. What is included in the additional information?

The [additional information guidance document](#) includes details on calculating studentship costs, completing the [additional information form](#), computational training courses, responsible innovation and environmental sustainability expectations, and equality, diversity and inclusion considerations.

19. Should the additional information form include predicted in-kind contributions (such as training delivered by industrial partners)?

Only cash contributions should be included in the additional information form. The template is available at https://www.ukri.org/wp-content/uploads/2022/11/UKRI-241122-FundingOpp-UKRICentresDoctoralTrainingArtificialIntelligence-AdditionalInformationFormTemplate.xlsx.

20. The JeS form for the outline has a section for partner contributions (cash and in-kind) for this funding opportunity so is this expected to be known at the outline stage even though letters are not required?

It is not expected that partnerships will have been confirmed at the outline stage. If you have the information available then you may complete the Project Partner section of the Je-S form. Where partnership details have not been confirmed partners may be named in the case for support.

Scope and priority areas
21. Does this CDT funding opportunity mainly address AI applications?

The funding opportunity addresses the applications and implications of AI. Proposals focussed on the mathematical and computational foundations of AI without a clear application to one of the priority areas should be submitted to the EPSRC CDT funding opportunity. If you are unsure whether your proposal fits the scope of the funding opportunity please send a short summary to ai.cdts@ukri.org.

22. The remit says that all graduates should be able to "develop and apply AI technology". What exactly is meant by "develop"? Should all graduates be technical experts who can code AI solutions - or is it possible to also train ethical / legal / policy experts who have a sufficient technical understanding that they can make more informed decisions in their domains?

How much AI technology development expertise is expected from a graduate will depend on the discipline and priority area the CDT seeks to address and the career background of the student. Some areas will require a more in-depth understanding of AI methods than others. The aim is for AI CDT graduates to be able to have sufficient understanding of the field to convey their own research and drive improvements in how AI is used within the identified priority areas. The extent to which they will be able to do this will depend on field of research and project in question.

23. Under Responsible and Trustworthy AI there is an emphasis on this being a research focussed theme. Could you explain what this means in relation to other priority areas?

The emphasis on Responsible and Trustworthy AI being a research theme is not to differentiate it from the other priority areas. The emphasis is to differentiate it from the training in responsible innovation that we would expect all CDT students to receive.

24. Is AI in Education an eligible area for this funding opportunity?

AI for Education is not a specific priority area. If your programme involves research into education, for example integrating educational outcome data with other data in areas such as health and work, then it could be eligible under the Science and Research priority area. The use of AI in education may be eligible as part of the Responsible and Trustworthy AI priority area. Applicants should make the case for how their proposed CDT fits one or more of the priority areas.

25. Under Defence and Security, are you only looking for applications focused on defence and security? Could cybersecurity with broader applications to other business sectors be considered within this priority area?

Depending on the focus of the proposal, cybersecurity could be considered to fit in the Defence and Security priority. We are not being prescriptive as to how applications address a priority area; applicants should make the case for how their proposal fits the priority area and this will be assessed as part of the criteria of the call.

26. How should we engage with MoD, GCHQ, etc. for the defence and security priority? Are there specific people that we can contact to discuss involvement in the CDT?

Applicants should use the support available at their host organisations or collaborators to contact potential partners. It is not expected that all partnerships have been confirmed at the outline stage. UKRI is exploring how we might facilitate engagement with potential partners during the full proposal stage.

27. Is Responsible AI a cross cutting theme that can include multiple disciplines across Health, Environment and Energy, etc?

Yes.

28. Given that there are 7 specific areas noted, plus the cross-cutting areas, and only funding for 10-15 CDTs, then will these be spread out across the areas proportionately, or might there be a cluster of CDTs in one or a smaller number of specific areas?

UKRI will consider the balance of the portfolio when making funding decisions.

29. Could a proposal cover a few areas but for one industry sector?

Yes, CDT proposals may focus on more than one priority area.

30. Presumably the Science and Research priority is not restricted to areas of science in EPSRC's remit?

The Science and Research priority area is specifically scoped for all areas of UKRI's remit. There is no restriction to EPSRC-relevant areas.

31. Can PhD themes be defined around a completely new interdisciplinary areas with complementary expertise? For instance, applying AI to specific sectors in finance yet participating departments had limited expertise in these areas?

Yes, new interdisciplinary themes are welcome. Applicants should be able to make the case that the vision and scope of the CDT is within one of the priority areas of the funding opportunity. They should also provide a rationale for the national need for PhD graduates in that area, the need for cohort-based training, and explain how the applicant team will work together to deliver the CDT. The strength of the case made will be assessed by peer review.

Students

CDT students may be part time, these students must undertake study for a minimum of 50% FTE. See the additional information guidance for further details. All CDT students are required to undertake a formal, assessable programme of taught coursework.

33. The expected minimum cohort size is 10 students per year. What is the maximum?

There is no maximum for the number of students per year, but feasibility and management approach will be considered in assessment.

34. Can the lead university request a lower percentage of PhD students for cohort and other universities have a larger portion?

Yes. How collaborating universities chose to distribute studentships between them should be appropriate for the scope of the CDT and the capacity of the host organisations. We would encourage flexibility in this so that the student preference might be considered in making final decisions.

Student costs

35. The funding finder pager states that "UKRI CDT students must have minimum 50% UKRI support." Does this mean self-funded or other-funded students cannot benefit from the CDT training and support programme?

Self-funded students are aligned students and may benefit from CDT activities, though no costs associated with aligned students may be charged to the CDT grant. See the additional information guidance for further details.

36. According to the funding finder "additional 'per student' costs such as "conference fees", etc. should not be included within the UKRI contribution. What about funding for Research Training Support Grant (RTSG) and other activities like attending CDT meetings/training?

Additional per student costs may not be included for aligned students who are not funded by the CDT, for example DTP students. These students may however benefit from CDT activities. For students whose fees and stipend are supported by the CDT RTSG costs may be included on the proposal. See the Additional information guidance for further details.

37. Is there an expected level of RTSG per student?

UKRI has not specified a minimum or maximum level of RTSG for CDT students. The amount requested should be appropriate for the scope and vision of the CDT and training needed for students in that area.

38. Will there be MRC funding to top-up the stipend for clinical students?

The UKRI-wide funding opportunity recognises the importance of clinical training and will support clinical salaries within core application etc, where these are fully justified.

39. For a bid across two academic institutions, is it acceptable to charge different student fees for each institution? Each institution has a different level of standard PhD fees, above the UKRI minimum.

Yes, it is ok for partner organisations to charge different fees. These should be justified at the full proposal stage.

40. Can Long Term Attachment (LTA) costs be included for those students who have to spend extended periods of time (6 months, a year etc) working abroad at a site where an astrophysics or particle physics experiment is based, for example at CERN or a telescope?

LTA costs are an eligible cost as for some students it will be a key part of their training. Applicants should decide what percentage of students are likely to need these costs based on previous experience and plans for the CDT.

International students

41. Can we include self-funded International students in our AI CDT training programme?

Yes. Self-funded international students would be considered as aligned students. Contributions from non-UK project partners such as international funding agencies, companies or other organisation) are welcome, subject to UKRI's trusted research and innovation principles. Students registered at international institutions will not count towards the minimum cohort size.

42. Currently there is the 30% cap on international awards per cohort per training grant. For this funding opportunity if international students do not form part of the cohort of 10 then on what basis would non-UK students participate?

Self-funded international students may benefit from the CDT and participate in CDT activities as aligned students. See the additional information guidance for further details.

43. Can we propose an AI CDT with some UKRI-funded students and some international self-funded students?

Yes. Self-funded international students would considered aligned students and not counted as leverage.

Training

44. Could you define "formally assessed"? Does this mean examinable, university sanctioned assessment? Does 'formal' mean credit awarded, as in postgraduate taught programmes? Are there any guidelines regarding the number of hours or credits for this taught coursework?

This will vary depending on the host institution and on the nature of the CDT. Applicants should clearly state their proposed approach for assessing the taught programme and justify why it is appropriate.

Completing the outline application and peer review

45. What balance is expected between the three sections headings for the Case for Support: Centre Vision, Student Training and Centre Management and Pastoral Care.

Applicants should decide on the appropriate balance between the sections to best present their proposed CDT.

46. Please could you confirm whether the costing guidance (studentships and Centre costs) is the same as for both the UKRI AI CDT and EPSRC CDT funding opportunities?

Yes, applications to both funding opportunities should be costed in the same way. The additional information guidance document is the same for both the EPSRC CDT and UKRI AI CDT funding opportunities.

47. In terms of evaluation, existing AI CDTs have a clear advantage in having established partners. How will these be evaluated against new bids?

Applications to refresh existing UKRI AI CDTs are welcomed as well as applications to support new CDTs. All applications will be considered together. They will be treated equally and assessed using the same assessment process and criteria. Existing centres will be expected to use their achievements and learning to support their proposal, and to demonstrate the added value of further investment.

48. Will we receive information on who is on the reviewing panels and if so when?

The outline panel membership will not be published before the meeting. Names and organisations of panel members will be published on EPSRC Grants on the Web (GoW) approximately 1 month after the meeting.

49. What are the considerations for reviewers assuming including both academics and industries? Would PI/CoI, host organisations be excluded to review proposals?

UKRI will follow standard practice to manage conflicts of interest see
https://www.ukri.org/councils/epsrc/guidance-for-reviewers/peer-reviews/epsrc-conflicts-of-interest-policy/

50. Are there any rules around the flexibility of costs between outline and full stage proposals, e.g. the 10% rule that often applies? Can partnering organisations/Co-Is on a CDT outline change between outline and full stage?

The full proposal should not be substantively different from the outline proposal. Minor changes (for example, one Co-I changing or moving organisation) will be permitted. There should not be substantive changes from the centre described at the outline stage, in particular the vision and scope. Where more substantive changes are required in exceptional circumstances, these should be discussed and agreed with UKRI before submission of the full proposal. There is no specific percentage to the flexibility in costs between outline and full.

Miscellaneous

51. Will an organisation's cap on number of proposals be affected if UKRI/EPSRC decides to move an AI or EPSRC proposal between funding opportunities?

Exceptionally UKRI/EPSRC may decide to transfer a proposal from one funding opportunity to the other following the outline stage, this will be done on a case-by-case basis. The organisation will not be disadvantaged.

Outline proposals should be submitted based on the funding opportunities' remit and priorities. If you are not sure which opportunity to apply to please contact ai.cdts@ukri.org or students@epsrc.ukri.org for advice.

52. Is UKRI looking at the geographical balance of the (accepted) bids?

UKRI will consider the balance of the portfolio when deciding which proposals to invite to full proposal. While this will focus on priority areas it may also include geographical diversity- though this should be interpreted in terms of how the investment will affect and work across locations and partners across the UK, not necessarily the geographical location of the host institution.

53. Are you going to favour research-intensive universities? Teaching-intensive universities train large number of future AI experts and could benefit immensely from setting up AI training centres. How can you make sure PIs and consortiums from smaller universities are not disadvantaged?

PhDs are research degrees and therefore CDTs are expected to have a research environment appropriate for the scope of the centre. Both single and multi-organisation applications are welcomed so there are opportunities for teaching-intensive universities to lead and partner on CDT applications.

54. "Pastoral care" is among the review criteria for the UKRI AI CDT call, though is not mentioned in the EPSRC CDT call. Please could you elaborate on what is required here, and how this differs between the two calls?

It is expected that UKRI AI CDTs place sufficient emphasis on the pastoral care of students and an appropriate framework is in place to support the wellbeing of students. Pastoral support should work towards all students feeling supported, being involved in the cohort, and able to perform to their full potential. Although not explicitly articulated in the EPSRC CDT call it is still an expectation that strong pastoral support will be in place in EPSRC CDTs.