EPSRC Centres for Doctoral Training and UKRI Artificial Intelligence Centres for Doctoral Training funding opportunities 2023 - full proposal stage supplementary information

Introduction

This document accompanies both the <u>EPSRC Centre for Doctoral Training (CDT)</u> and <u>UKRI</u> <u>artificial intelligence CDT</u> funding opportunities.

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Eligible costs

Studentship costs

Studentship costs consist of three elements: stipend, fee, and appropriate research training support (often referred to as RTSG). All studentships should be for 4 years.

As a minimum costs for stipend and fees should be the published UKRI rate for each full-time student. Please refer to <u>Get a studentship to fund your doctorate – UKRI</u> for current UKRI published stipend and fee rates.

If you are using the UKRI published rates, then you should use the 2023 to 2024 rates **without** any allowance for inflation over the lifetime of the grant. An indexation rate will be applied by EPSRC or UKRI to successful applications at the point when awards are issued.

Stipend

Stipends above the minimum rates published by UKRI may be requested. Any stipend enhancement should be fully justified in the context of the area of training and UK skills need, or the location of the student, for example London weighting.

Stipend enhancements can be sought from UKRI or could be contributed by another source. Regardless of source, any enhancement must be included as part of the stipend cost in the supplementary information form (see <u>below</u>).

Fees

Fees cannot be higher than the fee charged by the university for UK non-research council funded students on similar programmes. UKRI will not cover additional college fees.

Organisations should only charge fees at the home rate for doctoral-level students. This may be higher than the UKRI published figures but cannot be higher than the fee charged for UK non-Research Council funded students on similar programmes.

As CDTs are doctoral programmes, EPSRC or UKRI would not generally expect to support students at rates higher than that for doctoral training, even if students will receive a Masters qualification as part of the programme (e.g. MRes). College fees may not be sought.

For joint proposals partner organisations may charge different fees. The average fee based on expected students per organisation must be included in the supplementary information form.

Research training support grant (RTSG)

These costs are those specifically incurred due to the research project being undertaken by a student such as consumables and conference travel. It would also include facility access where this is linked to conducting the research of the project, or specialised training such as a summer school only being attended by a student due to their project.

Training which forms part of the centre's cohort training package (for example a course taken by a whole cohort or offered as a module as part of a student's training package) would be considered a centre delivery cost.

Costs for student laptops may only be requested if the laptop is a specialist piece of equipment required for the student's research. Standard laptops are not an eligible cost for RTSG funds.

UKRI studentship costs contribution

Where a student receives money from the EPSRC or UKRI CDT grant towards their studentship costs, they must do so at no less than 50% of the total studentship costs. Beyond this, you may use the EPSRC or UKRI studentship funding flexibly. For example, you could fully fund students, or partially fund students (min. 50%) which could cover all of some studentship elements and none of another (that is the stipend, fee, and RTSG do not need to be equally split between the funders supporting the student). You should consider how best to use the available flexibility afforded in the context of the centre's partnership arrangements and management.

CDT student affiliation types

EPSRC or UKRI CDT students

These students must receive at least 50% of their studentship costs (half of the total combined cost of their stipend, fee, and individual project costs) from the CDT grant. These students should be recorded through UKRI's reporting system. In addition to studentship costs, costs associated with cohort training and activities may be charged to the grant for these students.

Incorporated students

Incorporated studentship awards are those relating to the non-UKRI leveraged funds of the CDT. The UKRI training grant terms and conditions will apply to these students except for the residency-based eligibility prior to the start of the studentship. These students should be recorded through UKRI's reporting system.

Centre delivery costs, for example core training and CDT cohort activities costs, may be incurred in relation to incorporated students and charged to the grant. No studentship costs may be charged. Incorporated students must receive the same experience and support as UKRI CDT students. For example, provision for additional support such as Disabled Students' Allowance (DSA), parental leave (in any of its forms), or sickness must be made. These additional costs should be the responsibility of the studentship funder.

Aligned students

Aligned students are those with an award that is not reliant on CDT funding (UKRI or the leveraged funds) but who are nonetheless benefitting from CDT activities (an example would be a DTP supported student participating in CDT activities/training). Unless they are funded from another UKRI training grant, the UKRI training terms and conditions do not apply. Where they are supported by another UKRI grant any requests for additional costs/support such as parental leave, sickness, or DSA must be linked to that other training grant.

No costs associated with aligned students may be charged to the CDT grant (though where their participation in a CDT activity does not increase costs, all the activity's costs may be charged to the grant). Any additional costs resulting from the inclusion of aligned students should be covered from elsewhere such as the student's funding source. They must not be recorded through UKRI's reporting system in association with the CDT grant.

Part time students

The majority of students undertaking training must be full-time, however, part-time students can be supported on a case-by-case basis. Part-time students must undertake study for a minimum of 50% Full Time Equivalent (FTE).

Part time CDT students must be recognised as members of the student cohort. They should be given the support to enable them to benefit from the cohort training and wider centre activities. We would expect them to be able to engage in activities beyond their individual research projects.

Where the part-time studies of a student will require them to work beyond the original end date of the grant, we will allow a no-cost extension to the grant. During the extension period expenditure will be restricted to the studentship costs of the part-time student (stipend, fee, and individual project costs) with no further expenditure allowed such as centre delivery/coordination costs, even if this would not exceed the original award value.

International students

UKRI eligibility to receive studentship funding applies. However, UKRI will allow universities to offer up to 30% of the new studentships in any one year with open eligibility, meaning to support those students who do not meet the UKRI residency requirements. Where a student would normally be charged a higher fee rate than home status students (for example international fees), but is in receipt of studentships funds from UKRI, the student must not be charged additional fees above the level paid by UKRI.

Non-studentship costs

Delivery costs

Where organisations and/or project partners will contribute in cash to such costs, these should be included on the supplementary information form.

Eligible delivery costs include but are not limited to:

- Cohort training programme
- <u>Creativity@home</u>
- Compute access costs i.e. a budget for the centre to enable flexibility, rather than per student

Sub-contracting enhanced training provision

It is not expected that individual centres create bespoke training courses if access to appropriate courses is available through other providers. There may also be opportunities for funded centres to collaborate in designing training courses which are accessible across multiple CDTs, with the added value of creating networks of CDT students nationally.

Funding for students to attend such courses should be included in applications, costed appropriately based on conversations with providers, but ensuring robust, local procurement policies are followed.

UKRI expects applicants to liaise with the appropriate contacts throughout the development of their application to secure commitment from the facility or trainer.

Computational training courses

There is a significant amount of training available for students undertaking computational research. CDTs should contact potential providers, as they may be able either to provide the

training required, or to help with 'training the trainers' so that material can be delivered locally and at the most appropriate time.

A list of training courses is provided below. These courses cover both the tools ("how") and the methods ("why") for computing.

- Software Sustainability Institute and Software Carpentry:
 - o <u>Training for Centres for Doctoral Training | Software Sustainability Institute</u>
 - o Software Carpentry | Software Sustainability Institute
- National HPC Service training courses:
 - o ARCHER2 Training
- Edinburgh Parallel Computing Centre (EPCC):
 - o Education and training | EPCC
- Hartree Centre:
 - o <u>Training Opportunities Hartree Centre (stfc.ac.uk)</u>
 - Digital Curation Centre
 - Training | DCC
- Training via the EPSRC Tier-2 HPC facilities:
 - o Training (hpc-uk.ac.uk)
- TeSS (Training eSupport System) (elixir-europe.org)

Coordination costs

Applicants may seek costs from EPSRC and UKRI to cover staff salaries related to core management or administrative positions within the CDT.

Staff costs (salary for proportion of time committed to CDT delivery) may only be included for core management and administrative positions such as directors, co-directors, a centre manager, or a business engagement manager specifically employed for the centre. It must not include supervision time or pooled/general staff.

The investigators named on the Je-S application form should represent the core management team of the centre. We would generally expect no more than 10 investigators to be named. A strong justification will need to be provided for a larger core management team. Any requested funding for investigator time should reflect commitments to centre delivery and should not include individual student supervision related to research projects.

Where institutions and/or project partners will contribute such costs, these can be included on the supplementary information form whether they are cash (direct) contributions i.e. for new employment positions, or in-kind (indirect) e.g. the director's time where they are a tenured academic). These should be included on row 34 and/or 35 of the cost table.

Other costs

Start-up costs should only be included where necessary and should not duplicate existing provision such as where existing centres already have necessary infrastructure in place.

Cash and in-kind contributions

Both cash and in-kind contributions welcomed. In-kind contributions are those which benefit the centre but where the cost of provision is not a direct result of the centre's existence. For example, the loan or donation of existing equipment, staff salary for existing posts, or facility access.

Cash contributions are those which require monetary expenditure specifically for the centre such as studentships costs, the buying of equipment explicitly for the centre, or staff salary for a newly created post specifically associated with the centre.

HEI/institute contributions

HEI/institute contributions should be based on current rates, **inflation should not be accounted for in your calculations**. A consistent approach by applicants will enable comparison of contributions by peer review and EPSRC/UKRI. It is recognised that the true cost of contributions will be higher, but the long duration of the grants adds complexity in calculating inflation costs accurately. EPSRC/UKRI need a suitable baseline for monitoring and reporting purposes and will extrapolate costs going forward.

Please note that Estate and Indirect costs of the HEIs/institutes can be considered as a contribution. However, recognising that all universities/institutions will incur similar levels of these costs, they **should not be included** in the supplementary information table. If applicants wish to capture these they should be stated in the host organisational statement.

Alternative studentship funding

Studentship costs (stipend, fees, RTSG) provided by universities/institutions which are not funded by other sources (e.g. UKRI Doctoral Training Partnership) would be considered as cash contributions.

Universities/institutions cannot count college fees or waiving any difference between home and international fees as a contribution.

Any studentship costs (i.e. stipend, fees or RTSG), or contributions to centre delivery funded by project partners are cash contributions.

Where students will continue to be employed by a project partner during their doctoral study, and their salary is significantly higher than the stipend paid to other CDT students, only the value of the stipend paid to other CDT students will count as a cash contribution. The difference between the salary and the stipend level will count as an in-kind contribution.

Studentships funded from a source other than the CDT grant for which funding is not reliant upon the CDT are not considered as an in-kind contribution, i.e. the university will receive that funding regardless of whether or not the CDT proposal is successful or not. These would be considered 'aligned' students.

Completing the Je-S funding tables

- the UKRI contribution will be paid at 100% (including staff costs).
- the Summary of Resources table produces two headline funding lines

- the 'Other' funding line total will pull through from the 'Non-FEC Other Costs' table completed in Je-S.
- the 'non-FEC Other Costs table' should detail the co-ordination, delivery and other costs. For each line description please use "Delivery: ...", "Coordination: ...", or "Other Costs: ...".
- the total for 'Other' in the Summary of Resources should match cell M25 of the cost table (see link).
- The studentship funding line will pull through the sub-totals for stipends and fees completed under the 'Student Totals' table in Je-S
 - a line for each organisation should be provided in the 'Student Totals' table with an indicative student number for each
 - as this relates only to the studentship costs sought from UKRI, only those students should be included here. Round to the nearest whole student if necessary.
 - RTSG should be included under fees
 - the total for the studentship funding line under the Summary of Resources should match cell M21 of the cost table.
- In addition to the Je-S funding tables, a single supplementary information form for each CDT (detailed below) must be completed and a pdf version attached to your Je-S application as an 'additional document'.

Supplementary information form

A template for the supplementary information form is included in the supporting information section of the funding finder pages for both the <u>EPSRC CDT</u> and the <u>UKRI AI CDT</u> funding opportunities. Applicants **must** use the template provided.

One completed form must be included with each CDT application as a pdf file and submitted though Je- S. The document type should be uploaded as document type 'additional attachment'. An Excel copy of the completed supplementary information form should be emailed to:

- EPSRC CDT opportunity: students@epsrc.ukri.org with the subject 'Supplementary Information Form EPSRC CDT full proposal EP/Y...../1' by 4:00pm UK time on Wednesday 13 September 2023
- UKRI AI CDT opportunity: <u>ai.cdts@ukri.org</u> with the subject 'Supplementary information form for CDT full proposal EP/Y...../1' by 4.00pm on **Friday 14 July 2023**.

The form provides EPSRC, UKRI and peer review with details of the predicted costs of CDTs. It also includes additional information to input to the balancing portfolio activity which will take place following the full proposal assessment.

The supplementary information form should not capture any in-kind (indirect) contributions nor Estate/Indirect costs.

Information specific to EPSRC CDT funding opportunity Use the supplementary information form template on the <u>EPSRC CDT funding finder page</u>.

Applicants are required to:

• select the primary focus area for their application from the drop-down menu (required)

• select the primary cross-cutting scientific strategic priority that applies to the research area of their CDT from the drop-down menu (required).

Information specific to UKRI AI CDT funding opportunity

Use the supplementary information form template on the UKRI AI CDT funding finder page.

Applicants are required to:

- select the primary priority area for their application from the drop-down menu (required)
- select the primary cross-cutting theme from the drop-down menu if appropriate (optional)

Completing the supplementary information form

Centre information

Complete the details requested. As the grant reference of the full proposal is not known until it is submitted to EPSRC/UKRI please provide the outline proposal reference.

ITL Regions

Provide details of ITL regions where students will be located for the majority of their studies. These numbers are indicative, and centres will have the flexibility to locate students as appropriate for their training.

For details on ITL regions please refer to https://www.ons.gov.uk/methodology/geography/ukgeographies/eurostat.

Validation tests

The submitted supplementary information form must include the validation columns (please see below for a definition of each validation condition indicated in the form).

EPSRC CDT funding opportunity

All EPSRC applications must meet all these conditions. These calculations have been built into the Excel spreadsheet provided.

V1: M15 >= 50 i.e. the centre is supporting at least 50 students

V2: $(M21/H7) \le 40$ i.e. the amount of funding UKRI is contributing towards studentships costs is no more than 40 times the cost for an individual student

V3: $(M27+M28) \ge (10xH4)$ i.e. the expenditure on stipends from non-UKRI sources is at least the full stipend amount (i.e. including any enhancement) for ten students

V4: $(M29+M30) \ge (10xH5)$ i.e. the expenditure on fees from non-UKRI sources is at least the full fee amount for ten students

V5: M33 >= (0.2xM16) i.e. the total contribution from non-UKRI sources towards studentship costs is at least 20% of the total studentship costs.

UKRI AI CDT funding opportunity

In recognition of the diversity of potential partners across UKRI's remit, no minimum leverage requirement has been set for the UKRI AI CDT funding opportunity. Therefore, the validation tests on the supplementary information table do not need to be met. However, both cash and inkind support from non-UKRI sources is strongly expected.

Centre costs table

Centre costs table				
Cells H4-H6	The numbers provided beside H4 and H5 (in grey) are the total minimum UKRI rates over 4 years based on 2023/24 rates for ease of reference, but you may request higher costs if justified and must include any stipend enhancements.			
	The average total stipend per student i.e. over 4 years, should be entered in H4. This should include any stipend enhancement. The average total fees per student i.e. over 4 years, should be entered in H5. The RTSG per student i.e. over 4 years, should be entered in H6. The average total studentship costs per student (cell H7) will auto-calculate.			
	If students are getting a different level of support from each other (or there is a different fee due to university differences across a multi-site bid), this table should capture the average such that cell M16 represents the true, total studentship costs for the whole cohort (not just the minimum of 50).			
Rows 10-12	Use this table to provide details of any enhanced stipends that students will receive above the standard stipend for the CDT, and the percentage of students that are likely to receive them. Justification for enhanced stipends should be provided in the Justification of Resources document.			
Row 15	Enter the total number of students you expect to be recruited to each cohort (not just the minimum 50 but all the centre students if your centre is supporting more). M15 will auto-calculate the total number of students the centre will support over the grant lifetime and check this meets the call conditions (V1)			
Row 16	The Excel spreadsheet will auto-calculate this.			
Row 17	This is a header and should not be edited			
Rows 18-20	It is not necessary to complete all of these cells. The level of detail you choose to provide will depend on the level of flexibility your centre will employ and should reflect the other application documentation regarding expenditure plans. As a minimum you must complete cell M21 which must match the studentship funding line on the Je-S form. The spreadsheet will automatically check that M21 is no higher than 40xH7 (V2)			
Row 22	Start-up/set-up costs will only be considered for new centres. These costs should only be incurred in the first year and the cost entered in cell M22.			
Rows 23-24	The total management staff costs (row 23) and other delivery costs (row 24) for the centre across the 8.5 years should be entered into M23 and M24 respectively. No breakdown between cohorts should be provided.			
Row 25	M25 is a sum of M22 to M24 inclusive (the spreadsheet will do this automatically). M25 must match the 'Co-ordination, Delivery and Other Costs' funding heading on the Je-S form.			
Row 26	This is a header and should not be edited.			
Rows 27 and 28	As a minimum, this should indicate the overall contribution towards stipends across the lifetime of the centre, by source - HEI/institutional contribution to stipend costs in M27 and the contribution of project partners in M28. Further breakdown by cohort can be provided to reflect the plans of the centre if applicants wish to but is not mandatory. The spreadsheet will automatically check that M27+M28 is at least 10xH4 (V3).			

Rows 29	As with the stipend contribution from non-UKRI sources, as a minimum M29				
and 30	and M30 should be completed, capturing the contributions towards fees. The				
	spreadsheet will automatically check that M29+M30 is at least 10xH5 (V4).				
Rows 31	As a minimum, M31 and M32 should capture any contribution by the				
and 32	HEI/institution(s) and project partners to RTSG costs across the total student				
	cohort. Further breakdown by cohort can be provided to reflect the plans of the				
	Centre if applicants wish to but is not mandatory.				
Row 33	M33 is the sum of M27 to M32 inclusive (the spreadsheet will do this				
	automatically). The spreadsheet will automatically check that M33 is at least				
	20% of M16 (V5).				
Rows 34	This should capture any non-studentship direct contributions of				
and 35	HEIs/institutions and/or project partners. Contributions towards the salaries of				
	core CDT management/administrative positions can be included whether these				
	are direct (cash) or indirect (in-kind) contributions. However, no other indirect				
	contributions nor Estate/Indirect costs should be captured in this table.				
Row 36	Only M36 is the sum of M34 and M35 (the spreadsheet will do this				
	automatically).				
Cells M5, 6	The spreadsheet will automatically complete this:				
and 7	M5 is the sum of M21 and M25				
	M6 is the sum of M33 and M36				
	M7 is the sum of M5 and M6				

Responsible innovation and environmental sustainability

Centres should promote a culture and ethos of Responsible Innovation (RI). They must provide RRI training for their students and are expected to work within the <u>EPSRC framework for</u> responsible innovation. Students should gain an appreciation of social responsibility, the consideration of ethics and inclusive user engagement as part of designing and conducting research. We would expect students to receive training in the general topic of RRI as well as in issues more specific to the scientific areas relevant to the Centre.

UKRI's <u>environmental sustainability strategy</u> lays out our ambition to actively lead environmental sustainability across all our investments. Programmes must also seek opportunities to influence others and leave a legacy of environmental sustainability within the broader operations of their academic and industry partners.

Student projects

Project design

Students should be encouraged to consider how their project design or approach could have an impact in terms of RI. This does not apply only to those who must consider ethics due to animal involvement or human participation. For example, if the long-term project impacts were to materialise, such as mass production of a device, would that choice of material system, compound, chemical element, or solvent, impact on the device's recyclability, sustainability, or the availability of raw materials required to produce it? Can a student adapt the project design to address such concerns? Could a new robotic technology impact on business models and job creation? Could a data mining approach applied in a different context have potential implications for data protection? Can this be designed out? What if running a new algorithm or mathematical model requires a very large amount of power? Could changes reduce this?

Routes to impact

Students should be encouraged to think about when potential issues might need to be addressed and by whom. It is not always appropriate, or possible, to re-design a research project to address potential issues, but in considering the routes to impact, a follow-on project may be the appropriate time, opening up new avenues of research, or indeed, other researchers might need to take up consideration of this issue in order to tackle the challenge - in which case they need to be engaged early on. Taking the data mining example above, if it is not appropriate or possible to redesign the research project approach does dissemination and licensing arrangements need to take account of concerns?

Centre Level

In addition to the training of students to support the aspects above, centres should also consider the following:

Project design and choice

As well as students being encouraged to consider the design and approaches of their research project, the supervisors also need to be encouraged to do so. In addition, how/will the CDT take RI into account when finalising the choice of projects to be offered? How do the projects as a set contribute to the vision and ambitions of the Centre?

Routes to impact

We encourage applicants to consider how the impact of the centre as a whole can outlive an individual funding award. In the same way that students should be encouraged to consider issues and whether others in future should tackle these, there will centre-level challenges that may require a new centre, or new research avenues to arise in years to come. How will this be taken account?

Student awareness of sector, industry, and user environments

CDTs should consider the employment destinations of the graduates leaving the centre. Several sectors and industries have to consider RI through codes of conduct, regulatory frameworks, standards etc. and these must be adhered to or at least taken account of as part of innovation. There is a role for the centre, possibly through partner engagement, for increasing the awareness of students of these considerations, equipping them for their later careers. These realities of user innovation are also connected to the routes to impact section above as those users could lie further along the research and innovation pipeline for the outputs of student's research project.

Optional - applicants may wish to consider the resources available through ORBIT (the Observatory for Responsible Research and Innovation in ICT). This was commissioned by EPSRC to support the ICT, and other research and innovation communities, in embedding responsible innovation principles into research programmes. Further details can be found at ORBIT RRI - Responsible Research and Innovation, Ethics by Design Training (orbit-rri.org)

Equality, Diversity, and Inclusion

CDTs should act as a beacon for equality, diversity, and inclusion (ED&I) within the research and training community. At full proposal stage applicants are encouraged to consider the following questions:

- How will the leadership and CDT management teams work to contribute to changing the culture, practices and makeup of the research community? You should provide evidence of ways in which ED&I issues will be managed at both an institutional, CDT and wider community level.
- How has your institution's (or institutions' for multi-site centres) ED&I policies influenced the approach taken by the CDT? How will your approach align with your institution/s strategic ED&I priorities?
- What progress indicators will the CDT use to indicate/measure improvement in diversity and inclusion and why are these the most appropriate?
 - The outputs and successes of this plan will form part of the annual monitoring
- How will the CDT address ED&I considerations when recruiting staff, students, advisors, and general community representation in areas of relevance to the Centre (e.g. at conferences, workshops and reviews)?
- How will the CDT support career progression, particularly for those individuals who require a flexible working pattern due to personal circumstances, such as parenting or caring responsibilities or health-related reasons where necessary?
- What steps will the CDT take to raise awareness of and mitigate against the impact of unconscious bias in the running of the CDT in terms of gender, ethnicity or any other protected characteristics [https://www.gov.uk/discrimination-your-rights] through processes, behaviours and culture?
- If you are requesting funds specifically aimed at promoting ED&I, how will these funds be used to support ED&I activities and how will success be monitored?
- How will members of the CDT (staff, students, and partners (as appropriate)) act as ambassadors for ED&I?
- How will good practice be sought-out to evolve the CDT's ED&I approach over the centre's lifetime? How will this good practice be captured and shared with the wider community?
- Are there any other ED&I aspects of the plan not yet referred to and how does the CDT intend to achieve them?

UKRI has recently published the following material which may be useful:

- <u>EDI strategy and action plans UKRI</u>
- <u>UKRI people and teams action plan UKRI</u>
- o Expectations for equality, diversity and inclusion UKRI

Useful links

<u>Terms and conditions for training funding – UKRI</u> <u>Find studentships and doctoral training – UKRI</u> <u>Changes to the minimum stipend for academic year 2023 to 2024 – UKRI</u> <u>Internships and placements – UKRI</u>

Change log

Name	Date	Version	Change
Vivienne Blackstone	16/05/2023	1	N/A