EPSRC Centres for Doctoral Training and UKRI Artificial Intelligence Centres for Doctoral Training funding opportunities 2023 – additional 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. It provides details on the following:

- calculating studentship costs
- completing the additional information form
- computational training courses
- responsible innovation and environmental sustainability expectations
- equality, diversity and inclusion considerations.

Studentship costs

Studentship costs consist of three elements: stipend, fee, and appropriate research training support (often referred to as RTSG). If you are using the UKRI published rates then you should use the 2022/23 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.

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.

Applicants may offer an enhanced stipend. This 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 additional information form (see <u>below</u>).

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. College fees may not be sought. 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).

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.

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 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 Je-S Studentship Details. 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 Je-S Studentship Details.

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 Je-S 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.

Eligibility flexibility

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.

Additional information form

A template for the additional 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 and submitted though Je- S. The document type should be uploaded as document type 'Other attachment'.

The information provided in this form will not be seen by reviewers. It is to provide EPSRC and UKRI 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 outline panels.

We require applicants to provide on this form an estimate of the total cash support for each CDT at the outline stage.

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

Applicants may seek costs from EPSRC and UKRI to cover staff salaries related to core management or administrative positions within the CDT. Where organisations and/or project partners will contribute in cash to such costs, these should be included on the additional information form. 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.

Information specific to EPSRC CDT funding opportunity

Use the additional information form template on the EPSRC CDT funding finder page.

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 priorities that apply to their research area from the drop down menu (required).

Please indicate the level of cash support required for the CDT to achieve the minimal additional support and student numbers required.

- funding being requested by the centre from EPSRC
- institutional funding secured
- additional funding secured from project partners

Provide an indicative breakdown of student numbers by the region/nation where they will be studying for their doctorate (as a %). This must add up to 100%.

Information specific to UKRI AI CDT funding opportunity

Use the additional 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 if appropriate (optional)

Please complete the studentship cost and centre delivery cost tables. This will automatically complete the summary of total costs table.

Applicants should provide an indicative breakdown of student numbers by the region/nation where they will be studying for their doctorate (as a %). This must add up to 100%.

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 Training for Centres for Doctoral Training | Software Sustainability Institute
 - o Software Carpentry | Software Sustainability Institute
- National HPC Service training courses:
 - 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
 - o <u>Training | DCC</u>
- Training via the EPSRC Tier-2 HPC facilities:
 - o <u>Training (hpc-uk.ac.uk)</u>
- TeSS (Training eSupport System) (elixir-europe.org)

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?