



## UKSA CDT call in Rocketry, Research Teaching and Training Hub (R2T2) Guidance Notes

### Contents

INTRODUCTION.....	2
Aim of the call .....	2
Funding and intake .....	2
Key features of the centre.....	2
TIMETABLE .....	3
ELIGIBILITY .....	3
Lead Applicants .....	4
Research Organisation .....	4
Non-Academic Organisations .....	4
COVID-19 .....	4
APPLICATION PROCESS .....	4
Information for project partners .....	5
Case for Support.....	5
Letters of Support .....	6
Data Protection .....	7
ASSESSMENT.....	7
Panel Assessment.....	7
Criteria for Assessment.....	7
SUCCESSFUL APPLICATIONS .....	7
RESEARCHFISH .....	7
CONTACTS .....	8
USEFUL LINKS.....	8

## INTRODUCTION

The R2T2 grant call has the purpose of increasing the availability of higher level, specialist skills in rocketry for the space launch sector, ensuring the necessary skills are available in the UK to deliver a commercially sustainable launch market. One of the main skills gaps identified for the launch sector are rocketry skills, therefore we welcome proposals from UK academic institutions having the expertise and capability of delivering rocketry focused PhDs.

### Aim of the call

The UKSA (UK Space Agency) will support the academic sector to develop a Centre for the Doctoral (CDT) training in rocketry PhDs as part of the Rocketry, Research, Teaching and Training Hub (R2T2), collaborating with STFC (Science and Technologies Facilities Council) as the delivery partner. R2T2 has the purpose of delivering PhD training which includes both academic and skills-based elements, providing students with the opportunity to participate in the practical aspects of rocketry and spend time in industry. This initiative has the purpose of increasing the number of workers with higher level skills available to the space launch sector and able to share their knowledge, reducing the wider skills shortage identified in the space launch sector. The possible R2T2 grant call is subject to funding approval, and if approvals are not obtained, the project may not go ahead.

### Funding and intake

It will cover the full cost of 10 rocketry PhDs on a four-year doctoral course (at the existing rate of £75,000 per student to cover the current full cost of a PhD, subject to change) and the cost of consumables (£90,000 per student to build the PhD project) starting in October 2023.

### Key features of the centre

The UK Space Agency will support the academic sector to develop rocketry PhDs as part of the Rocketry Research, Training and Teaching (R2T2) Hub, collaborating with STFC as the delivery partner.

R2T2 has the purpose of delivering PhDs with both academic and skills-based elements, providing students with the opportunity to participate in the practical aspects of rocketry and spend time in industry.

This opportunity aims to reduce the skills shortage in the space launch sector, ensuring the necessary skills are available in the UK to deliver a commercially sustainable launch market.

A key aspect to be included in the proposals is industry engagement and support, aiming to demonstrate how students will develop practical skills and experience of directly working with industry partners.

The universities awarded under the R2T2 Hub should collaborate and share lessons learned. The centre will be expected to engage the broader user and employer community, including industry (especially small and medium enterprises) and other relevant organisations. These organisations should have active engagement in determining and providing input to the training programme and in mentoring and co-supervising students, with additional input and guidance from STFC/UKRI where appropriate.

Students will be expected to undertake an original research project and apply them to R2T2.

Any non-UKSA funded students in the CDT will similarly be expected to undertake original research. The training programme for the whole cohort of students must be coherent and add considerable value when taken together.

The centre will be required to provide a structured cohort-based training programme for the

students.

In addition, all students will be expected to access the general training opportunities required for accreditation and to enhance their understanding of the innovation process including working with industrial partners as appropriate. The centre's training activities should also develop and enhance interdisciplinary technical knowledge.

The centre will need to have an appropriate management structure, expected to comprise a director and senior management team, with independent strategic oversight which must include representation from the non-academic sector and from UKSA.

## TIMETABLE

<b>Call for proposals</b>	10 September 2022
<b>Closing date</b>	17 October 2022
<b>Interviews</b>	January 2023
<b>Outcome announced</b>	Early February 2023
<b>CDT starts</b>	October 2023

## ELIGIBILITY

This initiative will be open to UK academic institutions with rocketry programmes or having the necessary resources and expertise to deliver rocketry PhDs.

Academic institutions are welcome to apply individually or as part of a group as they will be encouraged to collaborate as part of the UK R2T2 Hub.

[Check if your research organisation is eligible.](#)

Institutions will need to demonstrate existing industry engagement and private sector support, supporting them in providing students with industry experience and practical skills.

Academic institutions are welcome to apply individually or as part of a group as they will be encouraged to collaborate as part of the UK Rocketry Research, Training and Teaching (R2T2) Hub.

Non-UK organisations are not eligible to apply.

All institutions involved must be able to award PhD qualifications.

Centres must include a lead department at each institution.

### Overall eligibility criteria:

- **Organisation type**
  - Application open to UK-based academic institution (e.g. university)
  - Demonstrate existing experience of delivering PhD programmes
  - Demonstrate experience of delivering taught rocketry programmes
  - Demonstrate availability of rocketry knowledge and expertise in the department
  - Demonstrate availability of workshop and testing facilities for the PhD programme
- **Public sector equality duty**
  - Demonstrate compliance with the Public Sector Equality Duty (PSED), demonstrating compliance with Equality, Diversity, and Inclusion (EDI) and institutional EDI plans extending to all staff and contracts involved in the delivery of the programme, as well as all students engaged in the programme, in line with the 2010 Equality Act, in their grant application.

## Lead Applicants

Any Principal Investigator (PI) looking to lead a centre must meet the eligibility criteria defined in the [Research Grants Handbook](#).

STFC facilities are not eligible to apply to host a centre (either independently or as part of a consortium), however can be involved as a partner organisation.

## Research Organisation

All research organisations involved must be eligible to hold UKRI grants and meet the above criteria.

## Non-Academic Organisations

It is expected that industry and/or third sector organisations be actively involved in the development of the centre and its training programme and have representation on any management/advisory boards.

Non-academic organisations, (for example industry collaborators, third sector/charities, national facilities etc.) including research/training organisations and not-for-profit operations, can apply in collaboration with a lead academic partner, provided they can demonstrate that they possess the relevant technical capabilities and capacity to meet the centre's objectives.

These collaborators are expected to be **Support Partners** in developing the centre's activities.

## COVID-19

UKRI acknowledges that it is a challenge for applicants to determine the future impacts of COVID-19 while the pandemic continues to evolve. Applications should be based on the information available at the point of submission and, if applicable, the known application specific impacts of COVID-19 should be accounted for. Where known impacts have occurred, these should be highlighted in the application, including the assumptions/information at the point of submission. There is no need to include contingency plans for the potential impacts of COVID-19. Requests for travel both domestically and internationally can be included in accordance with the relevant scheme guidelines, noting the above advice.

Reviewers will receive instructions to assume that changes that arise from the COVID-19 pandemic, post-submission, will be resolved and complications related to COVID-19 should not affect their scores.

Where an application is successful, any changes in circumstances that affect the proposal will be managed as a post-award issue.

## APPLICATION PROCESS

All applications should be made *via* the Joint Electronic submission (Je-S) platform. To submit a proposal, applicants should navigate to the following:

Council: STFC  
Document Type: Studentship Proposal  
Scheme: Centre for Doctoral Training  
Call: Centre for Doctoral Training (UKSA R2T2) 2022

As part of the application process, the following documents should be uploaded through Je-S and labelled accordingly. Any documents not listed, such as CVs, list of publications etc. will be returned to the lead applicant for removal.

- Je-S *pro forma*
- 14-page case for support (Mandatory)

- Letter of Support from Technology Transfer Office (Mandatory)
- Letter of Support from the Head of Department (Mandatory)
- Letter(s) of Support from industry/third sector organisations engaging with in centre (Mandatory)
- Covering Letter (Optional. Please note, cover letters will not be seen by external reviewers/the panel)

All documents should conform to the guidelines described in the [Je-S help text](#).

#### Information for project partners

It is expected that project partners will contribute an appropriate level of support throughout the centre and have a vested interest in any outcomes. This information should be detailed in the application and through a letter of support.

#### Case for Support

The case for support should be no longer than 14 pages and conform to the font and margin guidelines. [STFC requirements](#). The case for support should be a self-contained summary of the proposed work with the necessary context given to enable panel members to make an informed judgement on the overall quality of the proposal. It should address the assessment criteria, covering the following:

<b>Assessment criteria</b>	
<b>Benefit to the UK and Relevance</b>	Consideration of UK-based employment and contract opportunities that will arise from the PhD programme
	Explain how investment sought from UKSA represents value for the UK public and how the proposal will benefit the UK economy
	Demonstrate applicability of the skills to spaceflight, including the extent to which the skills developed may improve the UK's spaceflight offering and the future UK workforce
<b>Partnership and Engagement</b>	The relevance and strength of the links formed with other organisations (particularly local small and medium enterprises) and other potential users.
	The extent of their involvement in determining and providing input to the proposed training programme, in mentoring and co-supervising students / in exploiting the outcomes of the research and training, and overall involvement in helping to manage the centre.
	Evidence of the plans in place to match students to placements and monitor their progress, and proposed metrics to monitor and evaluate the research innovation arising from such placements.
	Evidence of existing engagement with industry in the sector and their interest in supporting the skills development of the PhD students.
	Evidence of how individual universities or groups of universities partnering under the R2T2 Hub will collaborate and share lessons learned.
<b>Quality of training environment</b> (including the approach to support an inclusive centre)	The overall quality of the research training environment, and cohort approach to training focussed on the student experience.
	The degree to which you are supporting a healthy and inclusive research and innovation culture, including for example the approach to equality, diversity and inclusion, and innovation.
	Level of industry engagement and support, demonstrating how students will develop practical skills and experience of directly working with industry partners.
<b>Quality of the research</b>	The quality and diversity in the scientific area of rocketry to be addressed by the centre.

<b>environment and team</b>	The alignment of the centre to wider host institution strategies.
	The potential impact which could arise as a result of the centres success, both in terms of academic/scientific benefit, and wider economic/societal benefit.
	The extent to which responsible research and innovation will be supported and delivered in the centres research activities.
<b>Management and Delivery</b>	Demonstrate whether there is a sufficient contingency plan for the funding allocated to students who do not complete the PhD programme.
	Evidence of the effectiveness of the plans for the management and governance of the centre including the suitability and commitment of the director and senior management team, plans for obtaining independent strategic oversight and the involvement of students in the management process
	Provide a timeline of the proposed PhD programme for commencement in September 2023.
	Provide information on the levels of support offered to fund additional studentships, placements, associated training activities, contributions from external sources, and the level of commitment from the institution(s) applying to host the centre. (table format is recommended)

### Letters of Support

Please note, Je-S only allows a max of 3 letters of support to be uploaded. Merging more into a single PDF is recommended as required. All submissions:

- Can be either letters or e-mails;
  - Letters of support should be on headed paper and signed by a senior member of staff or director
  - E-mails of support should be from an appropriate person and clearly named alongside their job title and affiliation.
- Be dated within 3 months of submission

### Supporting organisations

The application must include letter(s) of support from each non-academic project partner involved in the creation and design of the centre. Letters (or e-mails) should outline:

- the benefits the partner expects to achieve from participating in the centre
- how their involvement will enhance the quality of the centre
- how they have been involved in the development of the bid and will be involved in the operation of the centre
- the level of resource they are proposing to put into the centre.

### Technology Transfer Office

A letter or e-mail of support an institutions Technology Transfer Office (or equivalent) must be included with each application. If the centre will span multiple institutions, then a Letter of support will be needed from each named institution.

The letter should relate to how the wider University will support innovation which will occur through the centre, and how it will help to engage with industry/third-sector organisations. It should also detail how any IP will be managed between the CDT and supporting organisations.

### Head of Department

The application should include a letter from the Head of Department, for each university (or other academic institution) involved in the bid, which should set out the university's commitment to the centre for at least the lifetime of the award, the alignment of the centre to the university's strategy and the availability of appropriate supervisors.

## Data Protection

Grants submitted *via* Je-S are done so under their [terms and conditions](#). Please make sure you have permission from any relevant bodies before submitting any sensitive data. STFC will not be held accountable if data submitted has been done so without the relevant permissions sought.

## Ethical considerations

It is possible that some projects funded through the centre will involve holding or using sensitive information on individuals. Applicants should ensure all the centres activities conform to [UKRI's research integrity policy](#). Although an ethical statement will not need to be submitted alongside any proposals, all the involved researchers should have a consideration of such requirements. STFC reserves the right to suspend any grants that do not meet these requirements.

All projects and activities should conform to [UKRI Trusted Research and Innovation](#) and [EDI](#) practises. STFC reserves the right to terminate any grants if there are any concerns over the above considerations.

## ASSESSMENT

### Panel Assessment

All applications will be reviewed by a Panel of experts consisting of industry and academia. There is potential for applicants to be interviewed as part of the process if required.

### Criteria for Assessment

- Benefit to the UK and Relevance (20% weighting in overall score)
- Partnership and Engagement (20% weighting in overall score)
- Quality of training environment (20% weighting in overall score)
- Quality of the research environment and team (20% weighting in overall score)
- Management and Delivery (20% weighting in overall score)

## SUCCESSFUL APPLICATIONS

Grants are awarded under the [terms and conditions](#) of UKRI. Please see [UKRI privacy note](#) for more details.

## ADDITIONAL TERMS AND CONDITIONS

The academic institutions are expected to map out the funding profile for the PhD expenditure and to prove they have developed a contingency plan for the funding allocated to students who might not complete the PhD programme, including whether a funding percentage will be reimbursed (e.g. consumables).

The academic institutions are expected to provide a timeline of the proposed PhD programme and commence the R2T2 PhD programme in September 2023, as well as advertise the programme in a timely manner, in accordance with the agreed upon starting date

The academic institutions are expected to provide a detailed funding profile for the consumables expenditure and how it will be reimbursed if not entirely used. The cost of consumables will be covered, allocating up to £90,000 per student. The consumables funding is subject to project documentation (e.g. cost breakdown) justifying the use of requested funds, to be submitted to STFC in order for the consumables to be allocated to the student.

## RESEARCHFISH

All award holders are required to submit any outputs on the [Researchfish platform](#). Award holders are required to provide information about outputs arising from their work annually during the award period, and for at least 5 years after the award has terminated.

Successful applicants may be required to submit a mid-term report. Details of this, and the review process, will be shared with the Principal Investigators closer to the time.

## CONTACTS

We encourage potential applicants to contact the office to discuss their proposal, and the UKSA/STFC office will be able to help and provide advice on applications where appropriate.

Please contact:

### **UK Space Agency team**

Email: [spaceflight@ukspaceagency.gov.uk](mailto:spaceflight@ukspaceagency.gov.uk)

Include 'R2T2' in the subject line.

We aim to respond within five working days.

### **Diana Lunca, UK Space Agency**

Email: [diana.lunca@ukspaceagency.gov.uk](mailto:diana.lunca@ukspaceagency.gov.uk)

Include 'R2T2' in the subject line.

We aim to respond within five working days.

### **STFC studentships team**

Email: [studentships@stfc.ukri.org](mailto:studentships@stfc.ukri.org)

Include 'R2T2' in the subject line.

We aim to respond within five working days.

## USEFUL LINKS

Below is a list of links which applicants may find useful when applying for STFC grants:

[UKRI Principles of Assessment and Decision Making](#)

[Researchfish](#),

[Equality of opportunity](#)

[Unconscious Bias](#)

[JeS Handbook](#)

[STFC Grants Handbook](#)

[UKRI Terms and Conditions](#)