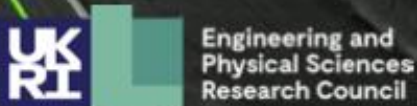




# DTE Network+

## Funding Call Summary Document



UNIVERSITY OF  
Southampton



UNIVERSITY OF  
BIRMINGHAM



University of  
BRISTOL



## Call for Proposals Summary Document

This document outlines the process that will be followed in the handling of the applications received as part of the Aviation focused funding call for the Decarbonising Transport through Electrification (DTE), A whole system approach Network+.

**Funding available:** Up to **£80,000** of funding (at 80% Full Economic Costs) is available with up to 3 projects funded.

**Closing date:** 17:00, 17<sup>th</sup> of December 2021

To download an application pack, click [here](#).

Submissions should be sent to this email address: [transport@dte.network](mailto:transport@dte.network)

### Key contacts:

**Konstantinos Stamatis**, Network Manager, [stamatisk@cardiff.ac.uk](mailto:stamatisk@cardiff.ac.uk)

**Professor Liana Cipcigan**, PI, [cipciganlm@cardiff.ac.uk](mailto:cipciganlm@cardiff.ac.uk)

### Get involved

The success of DTE Network+ depends on its expansion and continual member involvement. With this in mind we would like to invite all relevant stakeholders with an interest in decarbonising transport through electrification to join our network. Joining DTE Network+ will enable you to receive updates on events and funding via our newsletter and you will have the opportunity to disseminate your work. If you would like to play a more active role in this Network+ please get in touch [here](#). Network+ activities could include but are not limited to, reviewing proposals, mentoring Early Career Researchers, hosting or attending network events, proposing projects and completing secondment opportunities. For more information on our network themes and their objectives visit [dte.network](http://dte.network).

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# 1 Introducing DTE Network+

The DTE Network+ is investigating low-carbon transport modes (road, rail and airborne) alongside their associated electricity infrastructures to support existing and future transport/mobility needs. This transport/mobility system will be treated as an integrated structure embedded within the electricity energy vector with the goal of full decarbonisation. DTE Network+ is exploring drivers for change within the transport system including technological innovation, individual mobility needs and economic requirements for change alongside environmental and social concerns for sustainability. The network is also considering the role of social acceptance and the impact of policy and regulation on emission reduction. This network and its whole system approach is addressing short, medium and long-term challenges, using a multi-layered approach covering the electricity supply system, future charging and electrification infrastructure (including both wired and on/off-road wireless charging), and associated vehicle technologies (electric vehicles, autonomous vehicles, rail and electric & hybrid aircraft) (Figure 1).

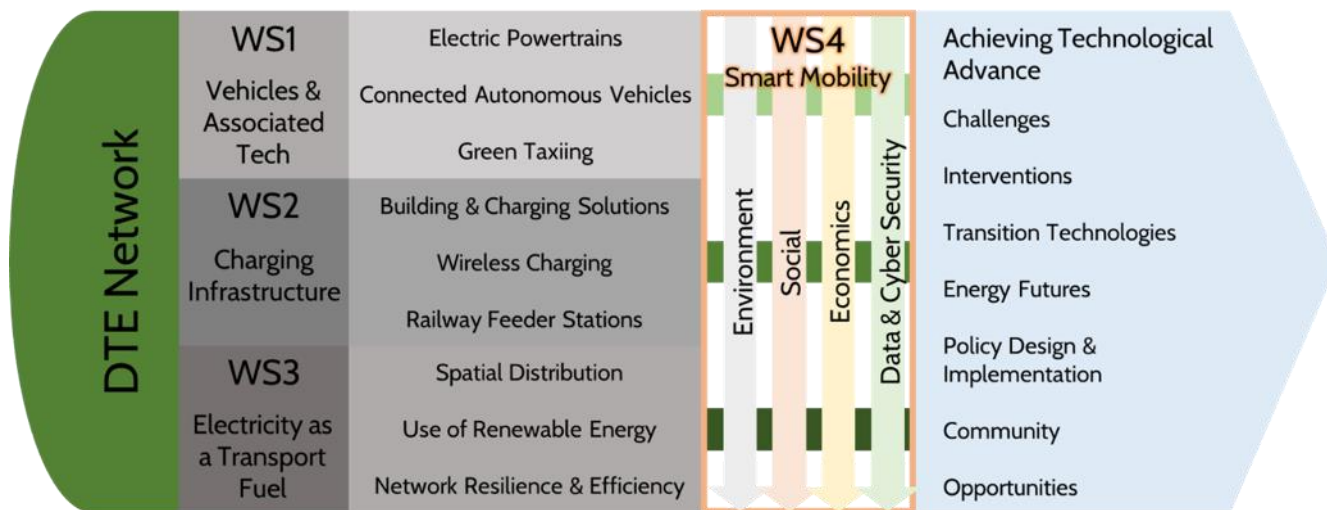


Figure 1: DTE Network+ Work Streams and vision

# 2 Funding Available

An important deliverable for the DTE Network+ is its flexible funding scheme. A total of **£80,000** is available for the this call to support the development of feasibility studies and research projects that will enhance existing knowledge in academia, industry and policy domestically or internationally.

Only one submission is permitted per applicant per call.

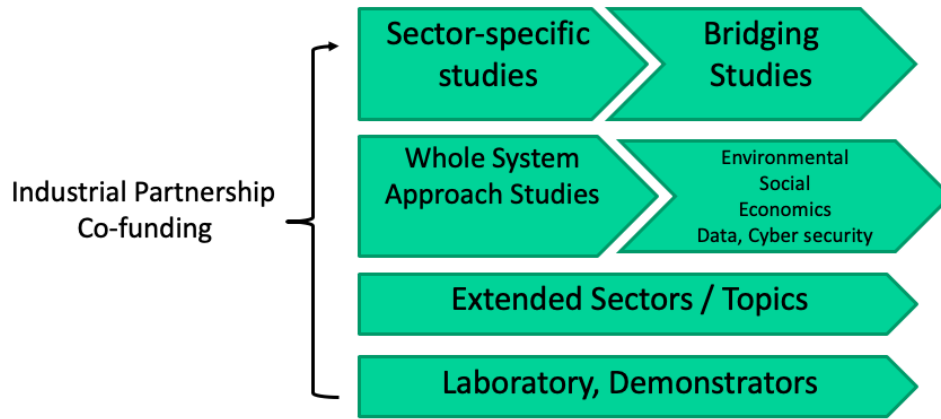
Applications involving **Early Career Researchers** (ECRs) are particularly encouraged. We expect that the applicant's research focus is within scope of the Decarbonising Transport through Electrification Network+ wider activities.

Submitted projects can be from a single UK academic institution or a collaboration of institutions (including current members of the DTE Network+) but with a defined lead outside the current Network+.

Collaborative proposals with industrial partners are also encouraged. The funding supports eligible activities as defined by UKRI, including but not limited to UK-based academic salary costs, travel and subsistence, consumables, stakeholder engagement events, dissemination costs and experimental costs. All costs must be fully justified as relevant to the proposed project. The funding is provided by EPSRC and information on the eligibility of organisations and individuals to receive EPSRC funding is available in the [EPSRC-UKRI funding guide](#).

Each project is expected to produce a tangible piece of work that would deliver a specific output, such as sector specific studies, bridging studies, whole system approach studies, early-stage concept development, or demonstrator technology (see Figure 2). These studies are expected to lead to further deliverables such as large-scale collaborative proposals to the EPSRC, Innovate UK and other funders.

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**Figure 2:** Project type expectations

### 3 Application Process

Applications to our Aviation Call for Proposals should be submitted in PDF format by 17:00, **17<sup>th</sup> of December 2021** to [transport@dte.network](mailto:transport@dte.network) using the [application form](#).

Up to 3 projects will be awarded. This Call for Proposals is dedicated to **Electrification of Aircraft, Aviation and Aerospace**. We are focusing on the medium and long term challenges mentioned in our [framework document](#). Proposals with innovative approaches to address these challenges are particularly encouraged. Example of some topics are listed below, but this is not an exhaustive list.

- Feasibility study on sizing of a superconducting motor for a fuel cell powered regional aircraft. (WS1)
- Feasibility study on sizing of a superconducting electrical power system for a gas turbine powered aircraft with distributed propulsion. (WS1)
- Novel electrified propulsion concepts (including taxiing and landing) concepts for aircraft (WS1 and WS2)
- Electrification of airport operations, including airport ground transport and access to airport (WS1,WS2,WS4)
- Future grid with charging infrastructures for a greener airport (WS1, WS2, WS3)
- New design tools for aviation electrification, using radically different and multi-disciplinary approaches such as combining digital twins, virtual reality and human factors technologies (All WS)

Once application forms are received, they will be filtered, and any incomplete applications will be discarded. Complete applications will then be organised according to their workstream and sent to two partner members (one from a relevant workstream and one external to the workstream).

The top scoring applications will be shortlisted and sent to a panel of reviewers consisting of relevant members of our advisory board and our workstream leaders. The overall highest rated proposals will be selected, and the final project list will be communicated to ESPRC.



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To maximise the potential for research synergies, the Call also offers projects access to facilities, equipment and expertise from our DTE Network+ partners (subject to terms and conditions agreed on a case-by-case basis). Selected facilities within the DTE Network+ relevant to this Call include:

- [Digital Aviation Research and Technology Centre](#) (1)
- [Cranfield's global research airport](#) (1)
- [Cardiff's High Voltage Laboratory](#) (2)
- [Cardiff's Lightning lab](#) (2)
- [Cardiff's Battery testing lab](#) (2)

(1) Point of contact is [p.c.k.luk@cranfield.ac.uk](mailto:p.c.k.luk@cranfield.ac.uk)

(2) Point of contact is [haddad@cardiff.ac.uk](mailto:haddad@cardiff.ac.uk)

If you believe that your proposal would benefit from access to specialist equipment/laboratory offered by any of the partners, please contact DTE Network+ so that your query will be passed to the relevant partner/organisation. Applicants are encouraged to provide **evidence of collaboration and match funding from industry and/or other relevant stakeholders.**

## 4 Selection Criteria

The review panel will use the following criteria to rank proposals:

- Quality
- Importance
- Ability to deliver
- Impact
- Equality, Diversity and Inclusion
- Value for money

All applications will be assessed against the same criteria. Proposals will be scored on how well they meet each of the six criteria (of equal weighting) on a scale of 0-5, as follows:

For any queries click [here](#) or alternatively please email [transport@dte.network](mailto:transport@dte.network)



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- 5=Outstanding
- 4=Excellent
- 3=Very Good
- 2=Poor
- 1=Not Suitable

Description of criteria can be found in the table below.

Criteria	Description
<b>Quality</b>	<p>Novel, ambitious, and timely</p> <p>Proposes a plausible hypothesis and clearly identified objectives and outcomes.</p> <p>Reference to the evidence base (including references to literature) and the expected addition to knowledge.</p> <p>Describe and justify the appropriateness of the research approach/method.</p>
<b>Importance</b>	<p>Describe the strategic importance of the project, how the project fits with national and international priorities e.g. Industrial Strategy, Clean Growth Strategy, Road to net Zero, etc.</p>
<b>Ability to deliver</b>	<p>Justify why this team is the most appropriate to deliver the project, with reference to their track record/s.</p> <p>Explain (with a timetable and work package/task structure, Gantt Chart) how you will ensure you deliver the project on time, including sufficient engagement and networking as part of the programme.</p> <p>Provide an account of the key risks and how you will manage these (include any risks in respect of ethics, data management, and staffing)</p>
<b>Impact</b>	<p>Describe the long-term effect that you expect your project to have on the decarbonising of transport through electrification agenda, and how you would expect this impact to be measured or recognised.</p> <p>Explain your overall approach to industry engagement and/or collaboration, including which people/organisations you will involve and how you will ensure this engagement.</p> <p>State the proposed outputs and outcomes from the project, with reference to destination journals, conferences and industry groups.</p>

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<b>Value for money</b>	<p>Provide a clear justification for all resources requested.</p> <p>Explain why your request is appropriate, given your project scope, ambition etc.</p> <p>State how you will contribute to the DTE Network+, referring to your long-term plans for follow-on funding and collaboration.</p>
<b>Equality, Diversity &amp; Inclusion</b>	<p>Describe how the project fits with the EDI statement of the DTE Network+ found in our website.</p>

## 5 Eligibility

- The lead applicant, PI and Co-I should be employed continuously by the Lead UK University (i.e., their post will outlast the project) or HE institution and be eligible to receive EPSRC funding.
- The PI shall be considered the key contact for the award, taking responsibility for delivery, budget and reporting. The PI must be from the organisation that will administer the grant. The PI will take intellectual leadership of the project and manage the research.
- Applications involving Early Career Researchers (ECRs) are encouraged, as well as collaboration with industrial partners. ECRs are defined in this context as researchers transitioning to or establishing independence. An established academic could act as PI or Co-I in a mentor capacity and in this case, a request for a modest percentage of the time may be included in the request (maximum 5%).
- ECRs could apply as PI, Lead Applicant or Co-I.
- Any funding requested for staff shall only be awarded for named individuals, who are already in post in the organisation. The short duration of the Small Projects precludes the option of making new appointments in the funding period.
- Funding for PhD students is not available.
- Letters of support from any project partners, that is any organisation that is putting in match funding (cash or in-kind) are recommended. General letters of support (i.e. not

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including a contribution to the project) are not required. Letters of support from partner universities (i.e., where a Co-I is listed from another University) are not required.

- Industry participation and 'matched funding' is strongly encouraged. Estimates of contributions (whether cash or in-kind) are also useful application additions; industry participation needs to be shown as appropriate and adding value to the proposal.
- Industry partners can be subcontracted to a university lead, though the work they perform has to be justified as essential to the project and provide value for money.
- Overseas HEI are not eligible for funding per EPSRC policy.
- As the grant holder, Cardiff University is responsible for allocating funding to successful proposals and will reimburse subcontracting organisations at 80% full economic costing. Academic institutions will be required to itemise bills based on 100% FEC and then invoice at 80% FEC. Funding will be disbursed from Cardiff University to the Lead University only. Any subsequent distribution of funding to Project Partners shall be the responsibility of the Lead University.

## 6 Costs

If successful, applicants will receive 80% of the full economic costs on proposals submitted and applicants' host institution will be required to support the remaining 20%. Applicants should ensure that their request is appropriate for the scope, ambition and expected impact, and can viably be spent within the maximum six months permitted.

- Directly Allocated staff: Investigators and Technicians
- Directly Incurred staff: Researchers and Technicians
- Travel and Subsistence
- Other Directly Incurred costs: project specific consumables, consultancy fees, costing less than **£4,000**. Funding for the purchase of equipment is not eligible.
- Other Directly Allocated costs: e.g. support staff salaries, a share of the costs of departmental support staff and/or the costs of access to major research facilities.
- Estates and Indirect costs.

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The following costs are not eligible for this call:

- Associated studentships
- Any data/SW licence costing more than **£2,000** (including VAT)
- Costs associated with International Co-Investigators
- Costs associated with UK co-investigators in business, civil society or government bodies

## 7 Sub-agreement

A template of the grant agreement with Cardiff University will be sent to all applicants. This will incorporate **UK RESEARCH AND INNOVATION FEC GRANTS STANDARD TERMS AND CONDITIONS OF GRANT** which can be found [here](#).

Applicants are requested to review this agreement and send to their departments for further consideration. It is expected that all projects for this call will start by **10<sup>th</sup> of January 2022** and timely execution of the agreement is important so as to not delay the start date of the projects.

## 8 DTE Network+ Programme Expectations

- Provide updates on progress and comply with end of project requests for reporting. Reporting requirements will be provided to successful teams. These shall align with UKRI templates and ResearchFish and include commentary on whether aims have been achieved, methods used, data produced, publications or other outputs, other outcomes, impact achieved and planned, problems encountered, and forward plans.
- Attend DTE Network+ events, as required and may include presentations for dissemination of the research results.
- Promote and amplify the work of DTE Network+ through their own networks. The DTE Network+ Manager will maintain contact with successful teams and those subscribed to receive updates to ensure that important information and announcements are disseminated widely.

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- In addition to specific outputs detailed in your proposal, each successful project team is required to work with the DTE Network+ Manager to produce a case study (template to be provided) and to present their work at DTE Network+ regular meetings and events.
- The team also agree to acknowledge support of the work by the EPSRC and DTE Network+ (grant number EP/S032053/1) in dissemination outputs, including articles, papers, presentations and interviews. The EPSRC and DTE Network+ branding should be visible and included on presentations.

For any queries, please get in touch with the DTE Network+ Manager Konstantinos Stamatis by email [transport@dte.network](mailto:transport@dte.network)

## 9 Equal Opportunities

The DTE Network+ is dedicated to address Equality, Diversity, and Inclusion (EDI) within all aspects of its remit, please find our EDI documentation [here](#).

Accordingly, no eligible applicant will receive less favourable treatment on the grounds of gender, marital status, sexual orientation, gender re-assignment, race, colour, nationality, ethnicity or national origins, religion or similar philosophical belief, spent criminal conviction, age, disability, career breaks, paternity/maternity or adoption leave breaks.

Applications will be assessed exclusively on their merits, in accordance with the evaluation criteria set for the call with all reviewers having received unconscious bias training and guidance.

## 10 Terms and Conditions

Terms and conditions of standard UKRI grant awards apply. All project outputs and engagement should include DTE Network+ and UKRI/EPSCRC branding. Funded projects will be required to produce:

1. A final report which summarizes key outcomes (format TBC).
2. A summary of project findings for publication on the DTE Network+ website.
3. Contribution to the development of DTE Network+ roadmaps, reports/white papers (format TBC).

For any queries click [here](#) or alternatively please email [transport@dte.network](mailto:transport@dte.network)

## 11 How to Apply

The Application Form can be found [here](#) and the full completion of the proposal form and EDI Monitoring Form is required.

## 12 General Data Protection Regulation

This application will be stored by Cardiff University. By submitting it, you acknowledge that the information you provide will be transferred to Cardiff University for processing. All information will be held safely and in compliance with GDPR and the Equality Act 2010.

The DTE Network+ team will use this information to select research projects for funding. You can ask us to delete your data at any time by emailing [transport@dte.network](mailto:transport@dte.network)

Please note that without this data, we will be unable to process your application and so your application will be withdrawn.