Quick Reference

Please note that you must read the full Call document for guidance before submitting your proposal

Decarbonising Transport Networks+ Outline

Call type: Invitation for outlines

Closing date: 18 September 2018

Funding Available: Up to £4 million (£5 million FEC) is available for this call. The Engineering and Physical Sciences Research Council (EPSRC) aims to fund four to five proposals through this activity.

How to apply: Outlines followed by invited Full proposals

Assessment Process: Outlines will be considered by an expert panel. Those successful at outline stage will be invited to submit a full proposal which will undergo postal peer review, to be assessed at interview panel, resulting in a rank ordered list against all assessment criteria.

Key Dates:

Activity	Date
Deadline for Outlines	16.00 on 18 September 2018
Invitation to full proposal	w/c 1 October 2018
Deadline for submission of full proposal	16.00 on 6 November 2018
Interview Panel	w/c 5 February 2019
Funding decision	w/c 25 February 2019

Additional information: Only those successful at outline will be invited through to submit a full proposal. Full proposals may include additional partners and Co-investigators from the outline stage but should maintain the majority of their core team and the full wok package from the outline stage.

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Decarbonising Transport Network+

Call type: Invitation for outlines

Closing date: 18 September 2018

Related themes: Energy, Engineering

Contents of this call document

Summary

Up to £4 million (£5 million FEC) is available to fund four to five Networks plus concerned with aspects of decarbonising the UK transport system. Each Network should request funding to support of core research, flexible fund, and support staff (including a Hub Manager) as well as communications, engagement and networking activities.

EPSRC will look to fund proposals that collectively span the breadth of technological approaches to the challenge of decarbonising transport, outlined below. While multi-disciplinarity is encouraged, the clear majority of partners and research each network supports should have a scientific and technological approaches which fall within the remit of ESPRC.

This call is for outline proposals. Those successful after a sift outline panel will be invited to submit a full proposal, which will undergo full peer review and assessment at an interview panel.

Funding will be available to support a networks co-ordinator role, to be based in one of the successful networks. Applicants successful at outline stage will be asked to indicate whether they wish to apply for these additional funds. These will be allocated via an additional funding stream, not be costed within a proposal, and will be awarded based on performance at the interview stage of the peer review process. The role will ensure all networks have joint events, communications and strategic overlaps. It should not be costed into any individual proposal.

EPSRC do not expect to duplicate investments, and a key criteria will be the additionality that a network brings to the landscape. Proposals should demonstrate how they will bring large, complementary UKRI and public investments together with industry and other partners under a single unifying vision.

Due to current funding, Networks in Batteries and Energy Storage are not in scope for this call, though including investments in that space and networking them with relevant other groups to achieve a separate challenge is encouraged.

The networks+ should take note and act upon the EPSRC Balancing Capability strategies, making direct reference to their relevance and how they achieve those strategies within the case for support.

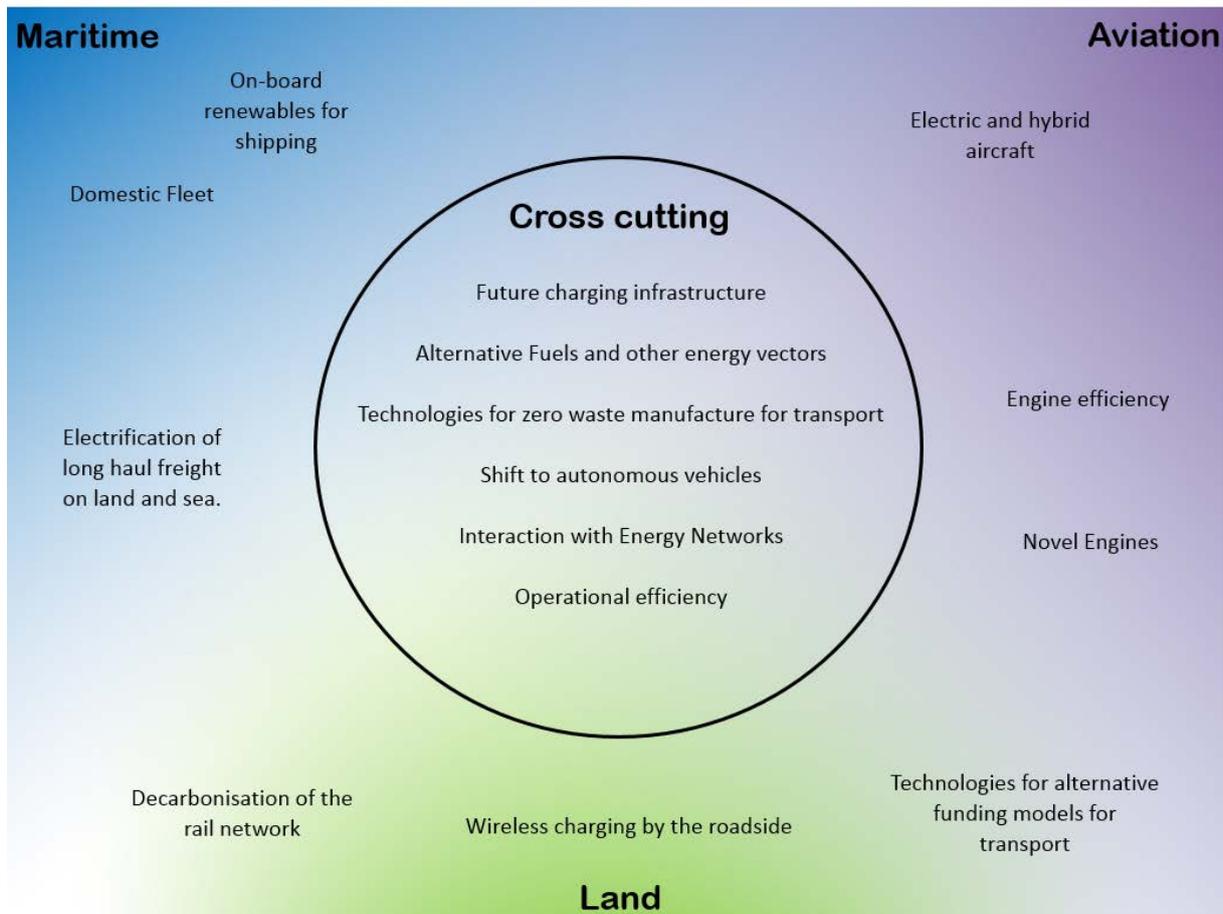https://epsrc.ukri.org/research/ourportfolio/researchareas/

Outlines should be submitted via the Research Councils' Joint electronic System (Je-S) by 18 September 2018. These will be sifted by an expert panel against the call criteria. Those successful at this stage will be invited to submit a full proposal through JeS in October 2018. This will undergo full peer review and go to an interview panel in February 2019.

Background

As part of the UK's clean growth strategy, the government has committed to cut carbon emissions by 80% by 2050. 24% of these emissions currently originate from transport. In order to meet our climate goals, the UK must cut current emissions from transport sources by 30% by 2032 and 80% by 2050. It is currently suggested this must include reducing the energy and emissions intensity of road transport by 30% and 44% respectively, increasing energy efficiency in HGVs by 15% by 2030 and modernise our aviation, rail and shipping sectors through sustainable alternative fuels, improved efficiency and new technologies.

EPSRC held a decarbonising transport scoping workshop in May 2018, the outputs of which can be found in Annex 1. Delegates collectively identified a series of key research challenges for which there are not currently coherent communities, but which are of high priority in terms of their potential to provide transformative science in decarbonising industry.

Maritime
- On-board renewables for shipping
- Domestic Fleet
- Electrification of long haul freight on land and sea.
- Decarbonisation of the rail network

Aviation
- Electric and hybrid aircraft
- Engine efficiency
- Novel Engines
- Technologies for alternative funding models for transport

Cross cutting
- Future charging infrastructure
- Alternative Fuels and other energy vectors
- Technologies for zero waste manufacture for transport
- Shift to autonomous vehicles
- Interaction with Energy Networks
- Operational efficiency

- Wireless charging by the roadside

Land

Given the scale of the challenge, the workshop identified the acute need to bring the community together, such that they would be better positioned to propose, bid for and react to larger future research investments.

The EPSRC investment in Networks plus will bring the community together and provide flexible funding for self-contained research proposals to address these challenges. This will provide a basis for future community led bids for investment around the challenge of decarbonising transportation and to react and respond to future government investments in the area. EPSRC expects to follow this community building investment with targeted critical mass funding towards the end of the Networks plus lifetime.

For more information about EPSRC's portfolio and strategies, see our website: https://www.epsrc.ac.uk/research/ourportfolio/

Funding available

Up to £4 million (80% FEC) is available. Use of the full budget will be contingent on the quality of the applications and the successful awards collectively engaging across the breadth of decarbonising transport.

Awards will be made for between 36-48 months' duration. This is to ensure that funding for feasibility studies can be allocated and spent during the lifetime of the award

The funds awarded to a grant should be used for the following;

- Core costs for investigator salaries, administrative support, general management of the network

- Engagement, communication and networking - including meetings, conferences and workshops to foster and strengthen relationships within the wider community and other UKRI investments, disseminate information and maintaining an awareness of current and upcoming developments.

- In addition each network will set aside an appropriate amount of 'plus' funds that can be used for organising activities open to the whole research community throughout the period of the award. An allocation for flexible funding could be used for supporting activities such as:

  o Funding for multidisciplinary feasibility projects that would subsequently support the strategic use of EPSRC standard mode funding (or other research council equivalent).

  o Early career researchers or to provide staff retention to support 'Equality, Diversity and Inclusion' activities within the network.

  o Funding for the network to adapt and react quickly, to changes in the energy landscape.

  o Running seminars, lectures, expert working groups, placements or exchanges, sandpits, skills training sessions etc.

Applicants are encouraged to be innovative in the kinds of user engagement, communications and knowledge exchange/impact generation activities they plan to undertake as part of the network activities.

It is expected that the application process for network plus funded activities will allow for applicants from outside of the network to participate, thereby drawing more people into the community of researchers. Applications for network plus awards should outline appropriate plans, including timelines, governance and assessment criteria, for the distribution of 'plus' funding.

Equality, Diversity and Inclusion

The long term strength of the UK research base depends on harnessing all the available talent and the Research Councils have together developed the ambitious UK Research and Innovation Equality, Diversity and Inclusion Action Plan https://www.ukri.org/files/legacy/skills/action-plan-edi-2016/

In line with the UK Research and Innovation Diversity Principles, EPSRC expects that equality and diversity is embedded at all levels and in all aspects of research practice. We are committed to supporting the research community in the diverse ways a research career can be built with our investments. This includes career

breaks, support for people with caring responsibilities, flexible working and alternative working patterns. With this in mind, we welcomes applications from academics who job share, have a part-time contract, need flexible working arrangements or those currently committed to other longer, large existing grants. Please see our Equality and Diversity webpages https://www.epsrc.ac.uk/funding/equalitydiversity/ for further information.

Equipment

Equipment over £10,000 in value (inc. VAT) is not available through this call. Smaller items of equipment (individually under £10,000) should be in the Directly Incurred - Other Costs heading.

Where possible, researchers are asked to make use of existing facilities and equipment, including those hosted at other universities.

For more information on equipment funding, please see: https://www.epsrc.ac.uk/research/facilities/equipment/

Eligibility

For information on the eligibility of organisations and individuals to receive EPSRC funding, see the EPSRC Funding Guide: https://www.epsrc.ac.uk/funding/howtoapply/fundingguide/

A list of eligible organisations to apply to EPSRC is provided at: https://www.ukri.org/funding/how-to-apply/eligibility/

As well as academic representation, networks should include a range of non-academic representatives where appropriate, including policy organisations, businesses, service user organisations and others.

Researchers based outside of the UK would not be eligible to be funded as an Investigator within the leadership team, but international researchers could be included as members of the wider network. Applications are expected to take an open and inclusive approach and to grow and evolve over the lifetime of the award.

How to apply

Submitting an application

You should prepare and submit your proposal using the Research Councils' Joint electronic Submission (Je-S) System (https://je-s.rcuk.ac.uk/).

When adding a new proposal, you should select:

- Council 'EPSRC'

- Document type 'Outline Proposal'

- Scheme 'EPSRC Outline'

- On the Project Details page you should select the 'Decarbonising Transport Networks Plus Outline' call.

Note that clicking 'submit document' on your proposal form in Je-S initially submits the proposal to your host organisation's administration, not to EPSRC. Please allow sufficient time for your organisation's submission process between submitting your proposal to them and the call closing date. EPSRC must receive your application by 16:00 on 18 September 2018.

Guidance on the types of support that may be sought and advice on the completion of the research proposal forms are given on the EPSRC website (https://www.epsrc.ac.uk/funding/howtoapply/) which should be consulted when preparing all proposals.

Full proposals invited following a successful outline stage must have the 'Related Grant' field completed in Je-S. Please use the option 'Successful Outline'.

Guidance on writing an application

Outline applications must include

1. **Case for Support** (up to four sides of A4).

    The Case of Support must contain details on the following elements:

    o Track record of the applicants – this should include details of the initial Network+ membership and the expertise each investigator will bring to the network.

    o The proposed scope and areas of research, innovation and challenges to be addressed by the network. Include the strategic links to UK, UK Research and Innovation and EPSRC strategy (i.e. the clean growth strategy, the road to zero, EPSRC balancing capability, the industrial strategy etc.)

    o A vision statement and planned activities of the network –including plans for wider engagement and the proposed use of the flexible funds and core activities. It should also note how the network intends to support early career researchers

    o A list of the key UK, UK Research and Innovation, and public sector investments, companies and other partners that will form a core part of the network.

2. **Equality, Diversity and Inclusion (EDI) support plan** (up to two pages, to be added as 'other' attachment type)

    Give brief details of how the Network+ will create a supportive environment. Detail how a full EDI plan will be created within the first six months of the grant starting.

Further guidance on completing the Je-S form can be found at https://je-s.rcuk.ac.uk/Handbook/pages/GuidanceonCompletingaStandardG/EthicalInforma

tion.htm. Other relevant guidance includes: EPSRC's policy on animal use in research (https://www.epsrc.ac.uk/about/standards/animalresearchpolicy/) and the Responsible Innovation Framework (https://www.epsrc.ac.uk/research/framework/).

Please note that on submission to EPSRC **all** non-PDF documents uploaded onto Je-S are converted to PDF, the use of non-standard fonts may result in errors or font conversion, which could affect the overall length of the document.

In addition, where non-standard fonts are present, and even though the converted PDF document may look unaffected in the Je-S System, when it is imported into the Research Councils Grants System some information may be removed. We therefore recommend that where a document contains any non-standard fonts (scientific notation, diagrams etc.), the document is converted to PDF prior to attaching it to the proposal.

For advice on writing proposals see:

https://www.epsrc.ac.uk/funding/howtoapply/preparing/

 Those successful at the outline stage will be invited to submit a full proposal.

User Engagement Strategy

Successful applicants will be required to develop and execute a strategy for engaging with potential users of the research funded in the project (resources for this activity can be requested as part of the Pathways to Impact and must be justified in the application). This strategy should be reviewed and updated regularly as part of the formal management of the grant.

The strategy should cover:

- how and when potential users have been/will be identified;

- what form the engagement will take;

- what steps will be taken to ensure that outputs of the research are made available to potential users;

- suitable metrics for determining the success of the strategy in delivering value to users.

Assessment

Assessment process

Outline proposals will be assessed by an expert panel against the research criteria below. Principle Investigators will be successful at the outline stage will be invited to submit full proposals. Additional partners may be added to full proposals subsequent to the outline stage but Principle investigators and host institutions will only be alterable in exceptional circumstances.

Full proposals will be sent to external peer reviewer's for their comments, to assess the proposal against the assessment criteria. Proposals that receive

sufficiently supportive reviewer comments will be invited to submit a response to the reviewers' comments. The interview panel, comprising industrial and academic members with a broad range of expertise, will rank the proposals against the full assessment criteria using the reviewers' comments, PI response and overall interview performance

In the event of this call being substantially oversubscribed as to be unmanageable, EPSRC reserve the right to modify the assessment process.

Assessment criteria

The criteria for assessment of outlines will be, in no particular order of priority:

Fit to the scope of the call.

- Alignment of the strategy of the network plus to the aims of the call, including how it will bring large current investments together with a focus on decarbonising transport.

- Evidence that the scope of the network will lead to avenues of potential future investment by UK Research and Innovation.

Appropriateness of team

- Appropriateness and the track record of the applicants.

- The balance of skills of the project team, including academic and non-academic partners.

- The level of administrative support for key networking activities.

Strategy for Network+ in this area

- Additionality of the network to current investments, complementing but not duplicating existing UK Research and Innovation investments.

- The level of engagement the proposed network has with current UK critical mass activities relevant to decarbonising transport.

Relevance to the challenge of decarbonising transport

- Appropriateness of research vision, ambition and transformative aspects of the grant to the challenge of decarbonising transport.

- Strength of the case made that the scope and membership of the network would improve existing, and build new, partnerships and research and innovation projects which will have direct relevance to the challenge.

- Potential impact of the UK research landscape represented by the current scope of the network and future research which would arise from the facilitated partnerships.

Strategy for Equality, Diversity and Inclusion plans.

- The appropriateness of a plan to create a successful EDI support strategy, and related resources.

It is important that all the assessment criteria are met as panel will consider all of them equally.

Feedback will not be given from the outline panel unless specifically requested by the panel.

Full proposals will be assessed on the following standard criteria:

Quality (Primary)

- Appropriateness of research vision, ambition and transformative aspects of the grant.

- Distinctiveness from other projects within the existing portfolio.

- Appropriateness of proposed mechanisms and methodology.

National Importance (Secondary Major)

- Potential impact of the UK research landscape in cross-disciplinary technology research.

- The fit to wider energy landscape.

- The relevance of the network to the challenge of decarbonising transport

Impact (Secondary)

- The relevance and appropriateness to any beneficiaries or collaborators

- The appropriateness of engagement plans to accelerate impact via information dissemination and knowledge exchange.

- The added value that EPSRC funding will bring to the research area and energy landscape.

- Appropriateness of plans for the sustainability of the activity after the lifetime of the grant.

- The potential for the grant to have a significant research impact and how Network+ outcomes can be exploited.

Applicants' ability to deliver the proposed research (Secondary)

- Appropriateness and the track record of the applicants.

- The balance of skills of the project team, including academic and non-academic partners.

Resources and management (Secondary)

- The appropriateness of management structure and support.

- The effectiveness of the proposed planning and management structure.

- The appropriateness and justification of the requested resources.

- The assessment criteria for feasibility funding and governance plans for the projects.

Engagement, communication and networking (Secondary)

- The mechanisms for broadening the collaboration and opportunities with the wider community and appropriate stakeholders.

- The appropriateness of planned activities to allow the generation and implementation of ideas.

- The effectiveness of activities and how they will be monitored.

Equality, Diversity and Inclusion (EDI), and Early Career Researcher (ECR) support plans (Secondary)

- The appropriateness of a plan to create a successful EDI and ECR support strategy, and related resources.

- The connectedness to the UK Research and Innovation EDI action plan.

- The effectiveness of activities and how they will be monitored.

Feedback will only be given to applicants after the interview panel if the panel explicitly instructs EPSRC to do so.

Guidance for reviewers

This section will only be relevant for full proposals. Reviewers should write their comments to the corresponding criteria box on the reviewer form where applicable. On the criteria that are not listed on the reviewer form (Engagement, communication and networking; and Equality, Diversity and Inclusion (EDI), and Early Career Researcher (ECR) support plans) these should be responded to under the Proposal Assessment criteria box.

Information about the EPSRC peer review process and guidance for reviewers can be found at: https://www.epsrc.ac.uk/funding/assessmentprocess/review/

Guidance for reviewing standard grants can be found here:

https://www.epsrc.ac.uk/funding/assessmentprocess/review/formsandguidancenotes/standardgrants/

Additional grant conditions (AGCs)

Grants will be subject to the standard UK Research and Innovation grant conditions however the following additional grant conditions will be added to this call:

GAC 01 – Equality, Diversity and Inclusion (EDI)

The Network Plus will be expected to prepare a full EDI plan within the first six months of the life of the grant. This will be assessed by the Supergen advice Stream (created by UK Research and Innovation) and outputs will be monitored on annual bases.

GAC 02 – Monitoring

Notwithstanding RGC 21, the Principal Investigator is required to submit annual progress reports after the commencement of the award. The reports will be required in a format to be specified by the EPSRC at least 2 months prior to the due date.

The Network Plus must collect details of industrial collaborators and their contributions to the research and provide these figures to the EPSRC on request.

GAC 03 Collaborative Agreement

In accordance with RGC 20, a Collaborative Agreement is required for this project. Prior to the grant commencing the Network Plus must enter into a formal Collaborative agreement with full participation of all of the academic and industrial partners in the Network Plus.

Payments against the grant will be suspended until the Network Plus has provided the EPSRC with a signed copy of the Collaborative Agreement. Signature by the director will be taken as implicit agreement of all network members.

Confirmation that the agreement is in place must be sent to energyteam@epsrc.ac.uk before the start of the project.

GAC 04 Project Advisory Group

EPSRC will establish a high level group across the Networks Plus, the Network will be expected to provide information and attend meetings as requested.

The PI must consider the 'RCUK Action Plan for Equality, Diversity and Inclusion' or its UK Research and Innovation successor, when considering the make-up of the board.

GAC 05 – Networking Activities

The Network Plus will be expected to create, own and deliver a communications strategy, taking into account stakeholder mapping, and engagement plan in order to strengthen outreach and communications from the Supergen Programme and at the Network Plus level. The success of which will be assessed in the annual Network Plus reporting process.

The Network Plus may be required to undertake/coordinate activities such as meetings, workshops or seminars on the EPSRC's behalf.

The Network Plus will be expected to include resources to support the UK representation internationally, which may be in conjunction with UKERC, and its successor, where applicable.

GAC 06 – Flexible Fund

Notwithstanding standard grant condition RGC6 concerning the transfer of funds between headings, any awarded under the heading of 'flexible funds' can be used to fund both directly incurred and directly allocated costs.

These funds must be reported on the final expenditure statement (FES) as directly incurred and a breakdown of the expenditure must be submitted along with the FES. If the breakdown is not included the FES will be returned to the research organisation to re-submit with a financial breakdown.

Normal conditions apply to all other funds awarded on this grant.

GAC 9 – Inter-Programme working

In areas of mutual interest, the Network Plus should seek to work with other networks plus and other EPSRC investments on cross topics, either through additional fund (Standard mode, etc.), by combining flexible funding or through additional central Supergen Programme flexible funds.

The Networks plus directors (and if necessary, co-Directors) must form a 'Directors group' which meets periodically to discuss topics of mutual interest and to coordinate cross-working. The Networks co-ordinator role will be to facilitate these meetings and appoint a chair.

N.B. An additional grant condition will be added in the future with Data Management requirements.

Moving forward

Once applications have completed outline stage, those successful will be invited to submit full proposals.

If you are currently restricted under the Repeatedly Unsuccessful Applicants Policy, you may submit unlimited outlines but you will only be able to submit 1 full proposal (as PI or CO-I) during the 12 month restricted period.

Full Submissions (but not outlines) to this call will count towards the Repeatedly Unsuccessful Applicants Policy. Further information about the policy can be found at: https://www.epsrc.ac.uk/funding/howtoapply/basics/resubpol/rua/

Key dates

Activity	Date
Deadline for Outlines	16.00 on 18 September 2018
Invitation to full proposal	w/c 1 October 2018
Deadline for submission of full proposal	16.00 on 6 November 2018
Interview Panel	w/c 5th February 2019
Funding decision	w/c 25 February 2019

*EPSRC aims to adhere to the key dates as published, however there may be exceptions where the sift, prioritisation or interview meeting may have to change due to panel member availability.

Contacts

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Change log

Name	Date	Version	Change
James Dracott	8 August 2018	1	N/A

Je-S attachments Check List

Outline:

Case for Support	Four pages	Mandatory	
Other Attachment	Two pages	Mandatory	Equality, Diversity and Inclusion (EDI) support plan

Please ensure you adhere to the above attachment requirements when submitting your proposal. Any missing, over length or unnecessary attachments may result in your proposal being rejected.