

Network-H₂ Call

Expression of Interest Guidance

Economic feasibility of hydrogen fuelled transportation

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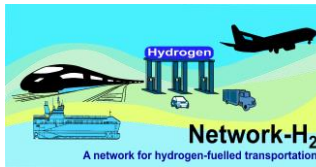
1. Timeline

14 th October 2020	Call opens
30 th October 2020	4pm (GMT) closing date for Expressions of Interest
30 th November 2020	Invitations to attend workshop for successful applicants
7/8 th December 2020	Virtual workshop meeting for successful applicants
11 th January 2021	Consortium full proposal submission
18 th January 2021	Confirmation of funding
30 th September 2021	Project completion

2. What is Network-H₂

[Network-H₂](#) combines existing networks across the EPSRC Thermal Energy Challenge Network, EPSRC Centre for Energy Systems Integration, Research Councils UK (RCUK) Hydrogen and Fuel Cells Hub, Advanced Propulsion Centre (APC), Consortium on Turbulent Reacting Flows, North East Centre for Energy Materials, mtech consortium and relevant research projects funded by the RCUK Programme and other national and international cross-disciplinary research to initiate a National network for hydrogen fuelled transportation. It supports the dissemination and impact of research activities among academia, industry, policymakers and the general public to ensure engagement and knowledge transfer taking place across all modes of transport and hydrogen energy including technology, socio-economics, behavioural science and policy with the following key objectives:

- Act as a forum to maximise impact, communicate, share best-practice, and disseminate information and data for research projects under the umbrella of 'Hydrogen fuelled Transportation'.
- Capture the state-of-the-art and identify the research challenges, incentives and barriers. Use this to identify and promote future research needs via the targeted use of feasibility-funding for those cutting-edge projects which can unlock hydrogen for transport applications whilst promoting collaborative research activities.



- Provide a wider forum for all stakeholders, including suppliers and consumers from across the energy sector, all modes of transport and technology developers. Foster long-term collaboration between outstanding international research teams in the UK, Europe and internationally.
- Engage with the wider research community across the physical sciences, social sciences & engineering disciplines to maximise dissemination, impact, reach and significance of research outcomes in this area and stimulate knowledge transfer between academia, industry, government and other stakeholders.
- Identify and promote future research needs based on partner contributions, forecasting exercises, and links to relevant networks and initiatives.

Led by Durham University, partners include; Newcastle University, Advanced Propulsion Centre UK Ltd, Consortium on Turbulent Reacting Flows, Department for Transport, Department for Business, Energy and Industrial Strategy, Energy Systems Catapult, Transport Systems Catapult, UK Hydrogen and Fuel Cell Association.

The network combines high-level research expertise with local knowledge, networks and partnerships and aims to take a leadership role across the energy, marine, on-road, rail and aviation sectors in advancing the rapidly advancing hydrogen-enabled transport sector by focusing on eight cross-cutting themes.

1. The whole transport/energy system
2. Pathways to sustainable hydrogen production and distribution
3. Compact and lightweight on-board storage
4. Compact and lightweight hydrogen energy conversion devices
5. Lightweight electrified powertrains
6. Hydrogen compatible materials and safety
7. Multi-modal transport, logistics and autonomy.
8. Policy, economics and societal impacts

This call pertains primarily to theme 8.

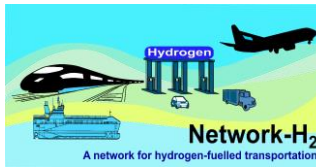
3. What is the feasibility call?

This call aims to bring together a consortium of 4 investigators to collaborate on developing an economic case for hydrogen fuelled transport in line with the Network theme, Policy, economics and societal impacts. A total of £50,000 (fEc) is available for the entire project.

The proposal could answer questions such as: What is the economic case for a transition to a hydrogen? How can this be accelerated? What might its wider benefits be? Are there any transport mode specific challenges?

Network-H2 is keen to develop a strong multi-disciplinary consortium to review the economic case for hydrogen fuelled transport and to provide monthly progress updates and by the end of the project, deliver (1) oral presentation at one of the Network-H2 events, (2) a short written report to be published in Network-H2's website summarising the activities and key findings, and (3) preparation of a journal publication. The consortium will receive the agreed funding on completion of items 2) and 3).

We are seeking expressions of interest from UKRI registered academics with a proven publications record in a relevant research area to develop an economic case study that will be disseminated to network partners and utilised to support the development of the hydrogen economy in the UK and internationally.



Successful applicants will be invited to a virtual workshop event with Network-H2 members on **7/8th December 2020**, to develop their ideas and to agree a structure and focus for the research. At the end of

this event, applicants will prepare a full proposal for funding and submit this to the Network-H2 review panel no later than the **11th January 2021**.

The project must commence by **February 2021** and complete by **September 2021**

4. Expression of Interest

Investigators are invited to express their interest in contributing to this study through the attached Expression of Interest Application Form [here](#).

The assessment criteria for the call will be as follows:

- (1) Novelty/transformational proposed contribution
- (2) Proven experience and expertise in a relevant area
- (3) Relevance of research background
- (4) Approach to the problem
- (5) Response to questions within the application
- (6) Fit with the aims of the Network

The funders aim to support a multi-disciplinary approach to this call and particularly encourage applications from Early Career Researchers (ECRs). It is expected that an ECR will be identified to act as the Principal Investigator for the final consortium.

Applications should be submitted via the above google application form by **October 2020**, together with confirmation that the applicant is available to attend a virtual sandpit discussion on **7/8th November 2020**.

5. Eligibility

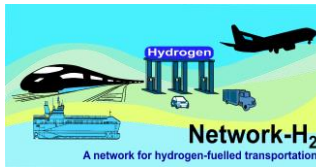
Who is eligible to apply?

- (1) Academics based at a UK institution when carrying out the project
- (2) Applications are encouraged for projects led by ECRs from groups that are under-represented in transport and climate related disciplines (i.e. women, ethnic minorities, people with disabilities). We define an ECR as any academic who has been awarded a PhD but has not yet held a research grant of £100,000 or more.
- (3) Network-H2 investigators can apply, but will not be considered as PI for the final submitted proposal
- (4) It is expected that the PI for the final submitted proposal will be an ECR

For this call, standard UKRI eligibility rules apply relating to the status of the organisation and the employment status of individuals applying. Investigators from all disciplines supported by UKRI are welcomed and encouraged to apply.

Please ensure sufficient time to create Je-S accounts for Investigators who do not currently have one. Any proposal that is incomplete, or does not meet the eligibility criteria of this call for proposals, will be rejected and will not be considered.

For information on the eligibility of organisations and individuals to receive EPSRC funding, see the EPSRC Funding Guide: <https://epsrc.ukri.org/funding/applicationprocess/fundingguide/>



6. How much funding is available?

A total of £50,000 is available for the project.

Successful investigators must discuss their applications with their local research office and obtain project costings on the institutions standard EPSRC template.

Funding is offered at 80% full economic cost (fEC) and may be used to cover any research related activity. Indexation should be included in the costing, as this will be applied upon award. EPSRC funding rules will be applied to the final proposal.

Eligible costs are in line with EPSRC terms and conditions

<https://epsrc.ukri.org/funding/applicationprocess/fundingguide/resources/>

Please note large equipment cannot be supported by this call.

7. Equality, Diversity and Inclusion

The Network is committed to EDI and this is at the heart of the Network's activities at all levels. The Network recognises the importance of EDI and that the link between diversity and research productivity is well established. It also understands the benefits that can be achieved through building an inclusive partnership within a multidisciplinary collaboration with representatives, both academic and industrial stakeholders, across the four major transportation modes of aviation, rail, road and marine.

8. What reporting will be required?

1. **A final report** will be required within one month of the end of the project covering the project outcomes, publications and any future plans.
2. **A final expenditure statement** will be required within two months of the end of the project noting the actual costs at 100% and 80% fEC

9. Further requirements

1. **Dissemination:** You must be willing to contribute to the overall aims of Network-H2, disseminating your findings via our project website and at our network events, as well as through other appropriate means, and engaging in building the Network-H2 ethos into your project.
2. **Webinars:** Successful applicants will be required to participate in 3 webinars relating to the project funded by this scheme. 1 where they will present and receive supportive feedback on their project, and 2 where they will participate and provide supportive feedback to the PIs of the other projects.

10. FAQ and Contact Us

We will be publishing (anonymised) answers to all questions applicants ask us on our website. If you have a question, please do not hesitate to contact us by emailing Jacki.Bell@durham.ac.uk