

# Hydrogen Storage and Distribution Supply Chain, Collaborative R&D Fund

Jenni McDonnell MBE

[Jenni.McDonnell@ktn-uk.org](mailto:Jenni.McDonnell@ktn-uk.org)

[www.ktn-uk.org](http://www.ktn-uk.org)



InnovateUK  
KTN

# Welcome



- You will be muted during the event so please use the Q&A box to ask questions about the competition process.
- Introduce yourselves using the chat box, network virtually.
- The event is being recorded and you will be sent a link to the recording and slides after the event to share with colleagues.
- Don't forget to sign up for the networking platform to book a confidential chat with Innovate UK and KTN

<https://hydrogensupplychain.meeting-mojo.com/>

# Agenda

- 10.00 Welcome
- 10.05 **Competition:** Scope
- 10.20 **Competition:** Eligibility and application process
- 10.50 Q&A
- 11.10 Applicant Pitches
- 11.40 **Competition:** Application support service
- 11.50 KTN's Hydrogen Innovation Network
- 12.00 Close

13.00 – 14.00 Confidential one to one chats with Innovate UK and KTN  
Book your 10min chat on the networking platform



- **Welcome and introductions**

- **Part 1**

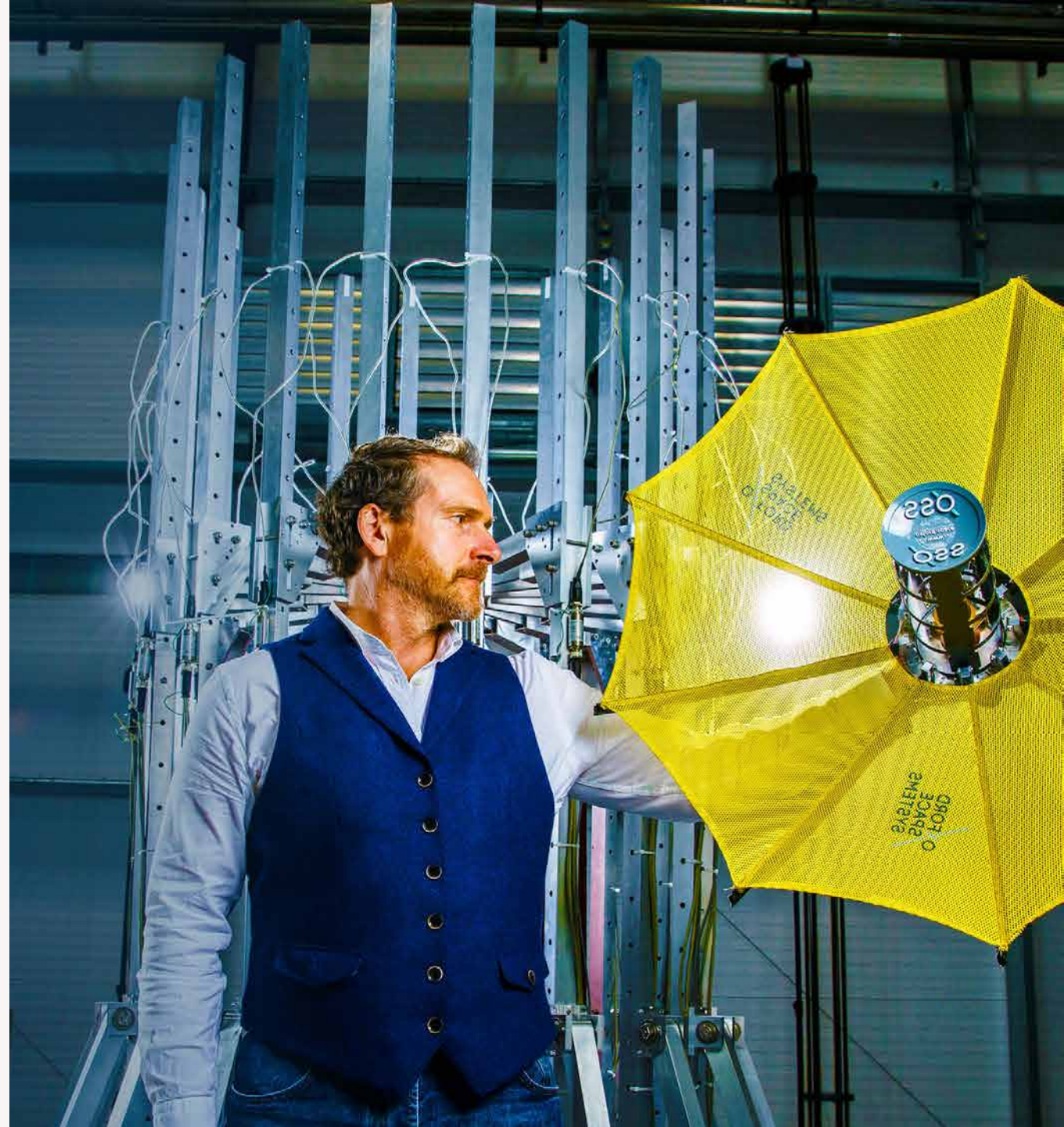
Scope, eligibility criteria

- **Part 2**

The Innovation Funding Service, application finances, academic partners

- **Part 3**

Submitting your application, assessment, project setup for successful applicants and reasonable adjustments



# Welcome and Introductions

**Sebastian Leonard -**

Portfolio Manager, Competitions Team

**Laura Finney -**

Innovation Lead, Energy Team





# Introduction to Innovate UK and UKRI



Innovate  
UK



# UK Research and Innovation

We work with the government to invest over £7 billion a year in research and innovation by partnering with academia and industry to make the impossible, possible. Through the UK's nine leading academic and industrial funding councils, we create **knowledge with impact.**



**UK Research  
and Innovation**



Innovate  
UK



# Innovate UK

- We are the UK's innovation agency
- We support business-led innovation in all sectors, technologies and UK regions
- A key delivery body of the Government's Innovation Strategy

## Our Mission

To help UK businesses grow through the development and commercialisation of new products, processes, and services, supported by an outstanding innovation ecosystem that is agile, inclusive, and easy to navigate.



Innovate  
UK





# Scope



Innovate  
UK



# Aim of the competition

Innovate UK, part of UK Research and Innovation, will work with industry to invest up to £4.35 million in innovation projects. As part of the Future Economy Net Zero Programme this competition will focus on the development of the hydrogen economy.

The aim of this competition is:

- To develop new ways of delivering integrated hydrogen storage and distribution systems, and the associated supply chains.



# Your proposal must show how you will:

- develop new ways of delivering integrated hydrogen storage and distribution systems
- develop and reduce the associated cost of UK hydrogen supply chains associated with the storage and distribution of hydrogen.
- Push businesses towards commercialisation, accelerating adoption, reducing complexity and cost of hydrogen through demand-led innovation.

**Your project must demonstrate how it will work across and integrate multiple parts of the hydrogen value chain and tiers of the supply chain hydrogen value and supply chain.** You can include technology, business model development, safety and standardisation.

**1. Your project must focus on one or both of the following parts of the hydrogen value chain:**

- hydrogen storage
- hydrogen distribution

**2. Your project must span two or more parts of the **hydrogen value chain** including:**

- production
- storage
- distribution
- use

**3. You must demonstrate how you are developing the UK hydrogen supply chain within the focus area of innovation and how it has **included multiple tiers of the hydrogen supply chain**.**



# Hydrogen Carriers

You can use hydrogen or its low carbon carriers, such as:

- low carbon ammonia
- low carbon methanol
- low carbon liquid organic hydrogen carriers

**Projects focussing on a low carbon hydrogen carrier must demonstrate benefit to the development of the hydrogen economy in the UK.**

You can develop innovation within different parts of hydrogen storage and distribution supply chain, including:

- physical infrastructure, for example:
- tanks and pipes
- digital and optimisation infrastructure
- components and enabling technologies, for example valves, seals and fittings
- on-road distribution, for example tube trailers
- refuelling
- Metering and sensing
- separation
- compression
- materials
- blending and deblending

**This list is not intended to be exhaustive.**

You are encouraged to work across supply chain components to develop new ways of delivering integrated storage and distribution systems, to accelerate adoption, reduce the complexity and cost of hydrogen.



# Business Models

Your project can also consider and develop business models to:

- reduce the cost of capital
- attract private investment
- increase insurability
- revenue generation models
- develop the value proposition
- develop data for investors
- reduce risk for investors and insurers

# Use and Production of Hydrogen

## 1. Use

Your proposal must demonstrate a need by **including an end customer**, such as Tier 1 or original equipment manufacturer (OEM), within your consortium. They can be a funded partner or non-funded project adviser.

**You must show evidence of how you have consideration for the end user** of the hydrogen as part of the project. They can be a funded partner or non-funded project adviser.

## 2. Production

Your project can also include aspects of hydrogen production for the purpose of developing an integrated project spanning two or more parts of the hydrogen value chain.

**Where hydrogen production is included, this should not be the primary areas of innovation within the project.** At least 50% of your project costs must be for the storage and distribution elements of your project.

# Working with a gas network

If you intend or need to work with a transmission or distribution gas network, **you must get in touch with Innovate UK before submission of your application.** We will discuss your application and its relationship with the Ofgem Strategic Innovation Fund.



[support@iuk.ukri.org](mailto:support@iuk.ukri.org)

# We are not funding projects that are:

- are not collaborative
- do not include collaboration across two or more parts of the hydrogen value chain where one part must include storage or distribution
- do not address the development of UK hydrogen supply chains
- do not include multiple tiers of the hydrogen supply chain
- are innovating within the end use of hydrogen including in mobility, for example on-vehicle or vessel technologies associated with the power train and fuel tanks.
- are innovating within the end use of hydrogen within industry, heat or power
- are using high carbon hydrogen carrier fuels of fossil fuel origin, e.g. methanol. hydrogen carriers must be low carbon.
- are not focussed on innovation within the storage or distribution of hydrogen
- are focussed largely or have more than 50% of the cost dedication to innovation within the production of hydrogen



# We are not funding projects that are:

- are business as usual and do not demonstrate significant innovation
- do not benefit the UK
- are focussed on the national gas transmission systems
- are focussed on sustainable aviation fuel
- focussing on the national gas transmission systems

# We cannot fund projects that are:

- dependent on export performance, for example giving a subsidy to a baker on the condition that it exports a certain quantity of bread to another country
- dependent on domestic inputs usage, for example giving a subsidy to a baker on the condition that it uses 50% UK flour in their product

# Key Information

We will fund feasibility projects, industrial research projects and experimental development projects, as defined in the guidance on categories of research.

## Your project

Your project must:

- have total costs of up to a maximum of £1 million
- start by 01 December 2023
- end by 31 May 2025
- last up to 18 months
- carry out all of its project work in the UK
- intend to exploit the results from or in the UK

You must only include [eligible project costs](#) in your application.



# In Summary

## Your project **MUST** include

1. at least two parts of the hydrogen value chain – **one of these MUST be storage or distribution**
2. multiple tiers of the associated supply chains
3. user of the hydrogen as either a collaborator or advisor
4. one SME

## It must also

- have total costs of up to a maximum of £1 million
- start by 01 December 2023
- end by 31 May 2025
- last up to 18 months
- carry out all of its project work in the UK
- intend to exploit the results from or in the UK

# Eligibility criteria



Innovate  
UK



# Eligibility criteria

<b>Project eligibility</b>	<ul style="list-style-type: none"><li>• be a UK registered business of any size</li><li>• collaborate with other UK registered organisations</li><li>• be or involve at least one grant claiming <u>micro, small or medium-sized enterprise</u> (SME)</li><li>• must carry out your project in the UK</li><li>• exploit the results from or in the UK</li></ul>
<b>Total project costs</b>	Up to £1,000,000
<b>Project start / end</b>	Start by 01 December 2023 end by 31 May 2025
<b>Project length</b>	Up to 18 months



# Previously submitted applications

This competition does allow you to submit a previously submitted application.

Previously submitted application	Not a Previously submitted application
A previously submitted application is an application Innovate UK judges as <u>not</u> materially different from one you have submitted before (but it can be updated based on the assessors' feedback)	<p>A brand-new application, project or idea that you have not previously submitted into an Innovate UK competition</p> <p>OR</p> <p>A previously submitted or ineligible application which:</p> <ul style="list-style-type: none"><li>✓ has been updated based on assessor feedback</li><li>✓ <u>and</u> is materially different from the application submitted before</li><li>✓ <u>and</u> fits with the scope of this competition</li></ul>

# Compliance with the UK Subsidy Control Regime

On 1 January 2021, the UK left the EU and is no longer subject to EU laws on State aid. We draw your attention to the guidance issued by BEIS: [Complying with the UK's international obligations on subsidy control: guidance for public authorities](#). Please be aware this is a living document and may be updated by BEIS as time progresses.

The set rules (typically GBER) which we previously relied on for the limits of what we could award, have now been replaced by internal decisions based on the new BEIS Subsidy Control Regime, and on policy, which will in turn set out bespoke eligibility requirements for each funding opportunity.

Innovate UK is offering funding for this competition in line with the UK's obligations and commitments to Subsidy Control. To ensure that Innovate UK remains compliant with the UK's international Subsidy Control duties in respect of:

- the EU-UK Trade and Cooperation Agreement;
- Article 10 of the Northern Ireland Protocol (successful applicants which are affected by the Northern Ireland Protocol will be funded in line with EU State aid regulations)
- Article 138 of the Withdrawal Agreement (some Union law applicable after 31 December 2020 in relation to the UK's participation in Union programmes and activities)
- the Subsidies and Countervailing measures within the WTO (ASCM)
- any other Free Trade Agreements active at the time of award

All awards will be conditional on compliance at all times with the UK's International obligations on Subsidy Control - this will be reflected in the terms and conditions of any award.

# Due diligence for UK Subsidy Control Regime

Under the Subsidy Control Regime, we will carry out financial health checks and ongoing concern assurances on your organisation.

## Certify you are eligible

When submitting an application, you must certify that you are eligible for funding. If you are unsure, please take independent legal advice before applying. Should you be successful, we will complete these financial checks and assurances before confirming the grant offer.

- For more information on company sizes, please refer to the [Company accounts guidance](#).
- Further information is available on our website in the general guidance.



# Eligibility Criteria - EU State Aid Regulations – Northern Ireland Protocol

If you are an applicant who is conducting activities that will affect trade of goods and/or electricity between Northern Ireland and the EU as envisaged by [Article 10 of the Northern Ireland protocol](#), then you must apply under European Commission State aid rules.

## Undertaking in Difficulty

For applicants subject to the European Commission State aid rules, you will be required to prove that they were not an “Undertaking in Difficulty” (UiD). We will ask for evidence of this.

This test applies to:

- companies that are more than 3 years old
- companies where more than half of its subscribed share capital has disappeared as a result of accumulated losses.
- your parent or holding company

## Certify you are eligible

When submitting an application, you must certify that you are eligible for State aid. If you are unsure, please take legal advice before applying. Should you be successful, we will apply this test as part of our viability checks before confirming the grant offer.

Further information is available on our website in the [general guidance under state aid](#).

If you are applying for an award funded under State aid Regulations, the definitions for company size are set out in the [European Commission Recommendation](#) of 6 May 2003.

# Eligibility Criteria: Funding Opportunities

Funding for R&D projects split in to 3 categories; feasibility studies, industrial research and experimental development.

**For feasibility studies and industrial research projects, you could get funding for your eligible project costs of:**

- up to 70% if you are a micro or small organisation
- up to 60% if you are a medium-sized organisation
- up to 50% if you are a large organisation

**For experimental development projects which are nearer to market, you could get funding for your eligible project costs of:**

- up to 45% if you are a micro or small organisation
- up to 35% if you are a medium-sized organisation
- up to 25% if you are a large organisation

**For research organisations conducting fundamental research you could get funding for your eligible project costs of up to 30%.**

For general guidance on what our research categories are please visit:

<https://www.ukri.org/councils/innovate-uk/guidance-for-applicants/general-guidance/categories-of-research-and-development/#contents-list>

# Participation Rules

**The aim of this funding opportunity is to:**

- optimise the level of funding to business and
- recognise the importance of research base to project

At least 70% of total eligible project costs must be incurred by business.

The maximum level (30% of total eligible project costs) is shared by all research organisations collaborating on the project.

# What is collaboration?

In all collaborative projects there must be:

- at least two organisations claiming grant within the application (including the lead)
- a business or RTO-led consortium, which may involve both business and the research base
- evidence of effective collaboration

We would expect to see the structure and rationale of the collaboration described in the application.

# Making more than one application

For this competition:

- A business can only lead on one application but can be included as a collaborator in a further 2 applications.
- If a business is not leading an application, it can collaborate in any number of applications.
- An academic institution, research technology organisation (RTO), charity or public sector organisation can collaborate on any number of applications.



# Other Innovate UK projects

If you have an outstanding final claim or Independent Accountant Report (IAR) on a live Innovate UK project, you will not be eligible to apply to this competition, as a lead or a partner organisation.

We will not award you any further funding if you:

- applied to a previous competition as the lead or sole company and were awarded funding by Innovate UK, but did not make a substantial effort to exploit that award
- applied to a previous competition as the lead or sole company and failed to comply with grant terms and conditions.

# Key Dates

Timeline	Dates
Competition Opens	13 February 2023
Briefing Event	16 February 2023
Submission Deadline	26 April 2023, 11:00
Applicants informed	30 May 2023



# **Innovation Funding Service (IFS)**

# Search for a funding competition and review criteria

## Innovation competitions

### Filter competitions

Keywords

Innovation area

Update results

### 1 competition

#### [Hydrogen storage and distribution supply chain Collaborative R&D](#)

UK registered businesses can apply for a share of up to £4.35 million for CR&D projects related to hydrogen storage and distribution supply chain. This funding is from Innovate UK.

#### Eligibility

This competition is open to collaborations only.

To lead a project your organisation must be a UK registered business of any size.

### Funding competition

## Hydrogen storage and distribution supply chain Collaborative R&D

UK registered businesses can apply for a share of up to £4.35 million for CR&D projects related to hydrogen storage and distribution supply chain. This funding is from Innovate UK.

**Competition opens:** Monday 13 February 2023

**Competition closes:** Wednesday 26 April 2023 11:00am

**⚠ This competition has not yet opened.**

Start new application

Summary

Eligibility

Scope

Dates

How to apply

Supporting information

### Description

Innovate UK, part of UK Research and Innovation, will work with industry to invest up to £4.35 million in innovation projects. As part of the Future Economy Net Zero Programme this competition will focus on the development of the hydrogen economy.

# Lead Applicant: create an account

The lead applicant must create an account:

## UK registered businesses

Use Companies House lookup as it speeds up our checks by providing your company number. You are unable to enter this at a later date.

## Research organisations, academics and universities

Enter your information manually so you are not listed as a business on IFS and ensure you receive the correct funding.




GOV.UK Innovation Funding Service

BETA This is a new service – your [feedback](#) will help us to improve it.

[Back](#)

Create your account

### Your organisation

 Your organisation must be UK based to receive funding from Innovate UK

**Business**

**Find your organisation on Companies House**

Enter your organisation name or registration number

**Companies House search results**

Select your organisation from the options below

[NOMENSA LTD](#)  
04214477 - Incorporated on 10 May 2001  
13 Queen Square, Bristol, BS1 4NT

GOV.UK Innovation Funding Service

BETA This is a new service – your [feedback](#) will help us to improve it.

[Back](#)

## Please sign in or create an account

**Used this service before?**

Please sign into your Innovation Funding Service account.

**New to this service?**

If you haven't used the new Innovation Funding Service before you will need to create an account.

### Innovation Funding Service Sign in

Email address  
Please enter your email address.

Password  
Please enter your password.

▼ [Need help signing in or creating an account?](#)

**My email and/or password isn't working**

If you applied previously using the old service, you will need to create a new account.

[Forgotten your password?](#)



# Project Details

- **Application Team** - Collaborators can invite organisations who you are working with on the project. Contributors can invite colleagues from your own organisation to help you complete your application.
- **Application Details** - Title, timescales
- **Subsidy basis** - Will the project, including any related activities, you want Innovate UK to fund, affect trade between Northern Ireland and the EU? All participants must complete this section.
- **Project Summary** - Short summary and objectives of the project including what is innovative about it
- **Public Description** - Description of your project which will be published if you are successful
- **Scope - How does your project align with the scope of this competition?** - If your project is not in scope, it will be ineligible for funding

# Application Questions

Detailed guidance available on IFS

Application Form		Appendix?
Question 1	Applicant location (not scored)	No
Question 2	Need or challenge	No
Question 3	Approach and innovation	Yes - optional
Question 4	Team and resources	Yes - optional
Question 5	Market awareness	No
Question 6	Outcomes and route to market	No
Question 7	Wider impacts	No
Question 8	Project management	Yes - mandatory
Question 9	Equality Diversity and Inclusion (EDI)	No
Question 10	Risks	Yes - mandatory
Question 11	Added value	No
Question 12	Costs and value for money	No

# Application finances



Innovate  
UK



# To claim funding

Your business does not have to be UK registered with Companies House when you apply but it must be registered before you can receive funding.

You are unable to claim funding if:

- you are an overseas organisation, so your company number begins with FC
- your organisation is setup as a branch, so your company number begins with BR
- you are a collaboration with no formal structure of ownership or control, so your company number begins with ML
- you are a Crown Dependency:
  - if your company is based in Jersey, your company number begins with JE
  - if your company is based in Guernsey
  - if your company is based in the Isle of Man

# British Overseas Territories

You are also unable to claim funding if your company is based in any of the British Overseas Territories (BOTs):

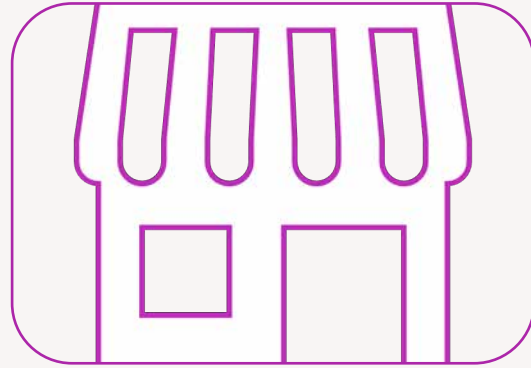
- Anguilla
- Bermuda
- British Antarctic Territory
- British Indian Ocean Territory
- British Virgin Islands
- Cayman Islands
- Falkland Islands
- Gibraltar
- Montserrat
- Pitcairn Islands
- Saint Helena, Ascension and Tristan da Cunha
- South Georgia and the South Sandwich Islands
- Turks and Caicos Islands



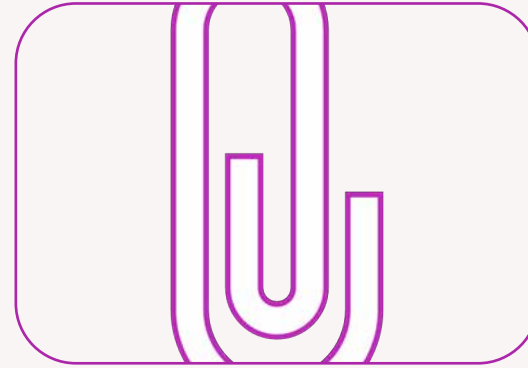
# Your Project Cost Categories



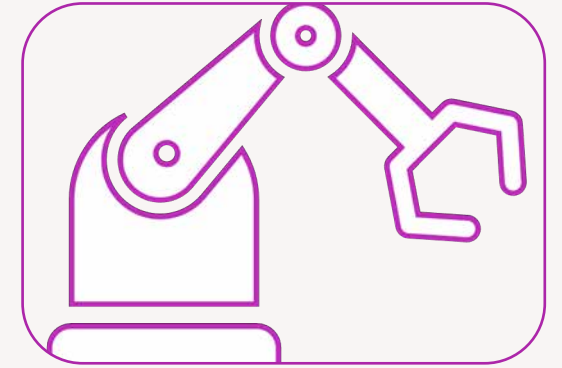
Labour



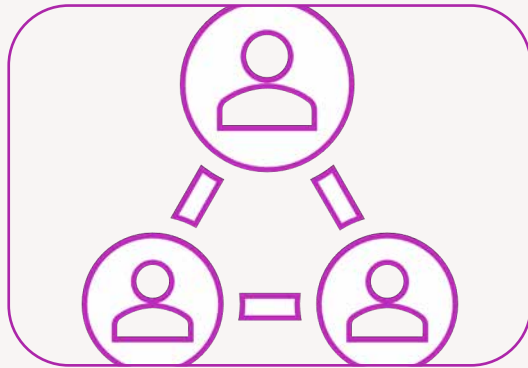
Overheads



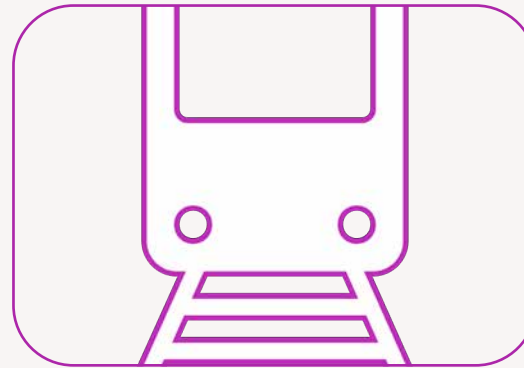
Materials



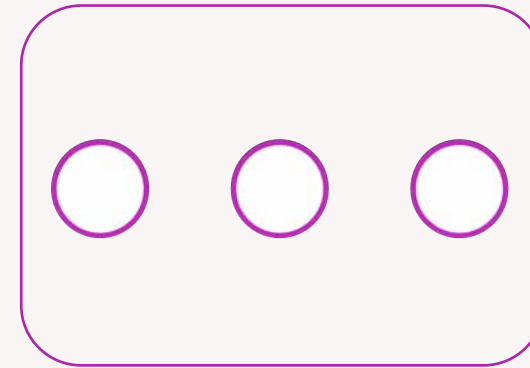
Equipment  
Usage



Subcontractors



Travel &  
Subsistence



Other

# Labour

## Costs supported:

- Roles and number of days spent working on project(time sheets required)
- 262 work days per annum(less Public holidays and entitlement)
- paid by PAYE
- Employers NI, annual salaries, pension, Health insurance

## Costs not supported:

- Dividends & bonuses
- Holiday(excluding that mentioned in eligible costs)
- Training days
- Names not roles assigned to project costs

Labour

£25,862

You can claim the labour costs of all employees you have working on your project.

► [Labour costs guidance](#)

If your application is awarded funding, you will need to account for all your labour costs as they occur. For example, you should keep timesheets and payroll records. These should show the actual hours worked by individuals and paid by the organisation.

Working days per year

Number of staff and roles within the project

Role within project	Gross employee cost	Rate (£/day)	Days to be spent by all staff at this grade	Total costs	
<input type="text" value="Project Manager"/>	<input type="text" value="50000"/>	£216	<input type="text" value="120"/>	£25,862	<a href="#">Remove</a>
<input type="text"/>	<input type="text" value="0"/>	£0	<input type="text" value="0"/>	£0	<a href="#">Remove</a>

[Add another role](#)

Total labour costs **£25,862**

# Material costs

## Costs supported

Off the shelf items via 3<sup>rd</sup> Party suppliers

Items from stock with the replacement of items invoice (used as evidence of supply)

## Costs not supported

Whole bulk buy invoices, when only partially used with project work

Items from stock that aren't being replaced

Equipment treated as assets

### Materials

£10,000 —

You can claim the costs of materials used on your project providing:

- they are not already purchased or included in the overheads
- they are purchased from third parties
- they won't have a residual/resale value at the end of your project. If they do you can claim the costs minus this value

[Please refer to our guide to project costs for further information.](#)

► [Materials costs guidance](#)

Please provide a breakdown of the materials you expect to use during the project

Item	Quantity	Cost per item (£)	Total	
Software	1	10000	£10,000	<a href="#">Remove</a>
	0	0	£0	<a href="#">Remove</a>

[Add another materials cost](#)

Total materials costs **£10,000**

# Subcontractors\*

## Costs supported

Justification required if non-UK supplier chosen

Independent contractor via 3<sup>rd</sup> Party suppliers

Linked supplier must be charged at cost

Description of work covered

## Costs not supported

Intercompany uplifts or profits

Overseas contractors, if UK contractor available-  
without justification

You can subcontract work if you don't have the expertise in your project team. You can also subcontract if it is cheaper than developing your skills in-house.

► [Subcontracting costs guidance](#)

Please provide details of any work that you expect to subcontract for your project.

Subcontractor name

Robotics experts ltd

Country where the subcontractor will work

UK

Role of the subcontractor in the project and description of the work they'll do

facilitation and availability of robotics labs

Cost

36795

\*You will be required to provide invoices and a description of work

# Travel and subsistence\*

## Costs supported

Rail, Car or Plane\*\*

Mileage at HMRC rate

Hotel (Bed and Breakfast)

Reasonable food costs(overnight stay only)

## Costs not supported

Fuel

First class travel

Entertaining or marketing

Visas

Unreasonable food costs(overnight stay only)

**Travel and subsistence** £ 3,000 ▲

You should include travel and subsistence costs that relate to this project.

Purpose of journey or description of subsistence cost	Number of times	Cost each (£)	Total (£)	
Travel to robotics labs for testing	12	100	£ 1,200	<a href="#">Remove</a>
monthly project meetings	12	150	£ 1,800	<a href="#">Remove</a>

[Add another travel cost](#)

Total travel & subsistence costs £ 3,000

\*You will be required to provide vouchers, tickets and invoices and \*\* must provide number of people travelling, the destination and purpose of visit



# Overheads

**Innovate UK's included costs are those incurred as a direct result of the project**

## Costs supported

Additional costs for administrative staff  
Day to Day Calculation for those people listed in the Labour Costs Table, multiplied by the numbers of days working on the project work.

## Costs not supported

Excessive costs of Senior Managers only overseeing project activities  
Business as usual day to day rates for Administration  
Uplifts of any kind

**Overhead costs** £ 44,483 ▲

You can incur overhead costs associated with those directly working on the project as well as indirect (administration) overheads. To be eligible both overhead categories need to be directly attributable to the project. The indirect overheads need to be additional as well as directly attributable. Note that there are certain cost categories/activities which are not eligible. To find out which costs are ineligible/eligible refer to our [project costs guidance](#).

► [Overheads costs guidance](#)


☐ No overhead costs

☒ 20% of labour costs

☐ Calculate overheads

**Calculate overheads**

If you feel your overheads are higher than 20% you may calculate a value using the Innovate UK model in the spreadsheet available below. The model shows you which types of indirect costs associated with your project you may claim. For support with this option, please contact our Customer Support Service on 01793 44 2700. Any value claimed under this model will be subject to a review. This will assess the appropriateness of your claim if your grant application is successful.

 **Download the overhead calculation spreadsheet**  
Download as an Excel document [overhead calculation spreadsheet.xlsx \(16KB\)](#)  
Download as an Open Office document [overhead calculation spreadsheet.ods \(10KB\)](#)

**Upload your completed spreadsheet**  
No file currently uploaded

+ Upload

# Capital equipment usage

## Costs supported:

Usage costs for the period of use  
A justification if greater than expected  
Depreciation charge is included

## Costs not supported

Purchase price of equipment  
Usage costs for the whole of the project period  
if only used for part of the time  
100% write down within the project timeline\*\*  
\*Please provide your Fixed Asset Register  
\*\*If not applicable

Capital usage

£750 —

You can claim the usage costs of capital assets you will buy for, or use on, your project.

[▶ Capital usage guidance](#)

Please provide a breakdown of the capital items you will buy and/or use for the project.

---

Item description

Laptop

New or existing item

☒ New ☐ Existing

Depreciation period (months)

24

Net present value at the start of your project or the price you bought it for (£)

2000

Residual value at end of project (£)

500

Utilisation (%)

50

Net cost

£750

# Other\*

## Costs supported

- Facility usage\*\*
- Licence fees(or appropriate proportion)
- Miscellaneous(not covered in other categories)
- Quality certification\*\*\*
- Specific PPE
- Dissemination costs
- Patent filing costs (for SMEs only) limited to £7.5k

## Costs not supported

- Facility charge rates
- Marketing
- Trademark
- Undefined mixed costs
- Contribution in kind
- Business as usual costs

\*You will be required to provide invoices and basis of daily rates

\*\*At daily or hourly cost

\*\*\*Where required for sign off

Other costs

£ 0 ▲

Please provide details of any project costs which cannot be covered by the other cost categories.

▶ [Other costs guidance](#)

Please note that legal or project audit and accountancy fees are not eligible and should not be included as an 'other cost'. Patent filing costs of new IP relating to the project are limited to £7,500 for SME applicants only. Please provide estimates of other costs that do not fit within any other cost headings.

Description and justification of the cost	Estimated cost (£)
<div></div>	<div>0</div>

[Add another cost](#)

# Project cost summary

## Finances summary

The finances of all project partners are included in this summary.

	Total costs (£)	Funding level (%)	Funding sought (£)	Contribution to project (£)	Other public sector funding (£)
Lead organisation	XXX		XXX		
Partner	XXX		XXX		
Total	XXX		XXX		

The maximum total project costs for this competition is £1,000,000

You must make sure your total at the bottom of the first column of this project costs summary table is no more than £1,000,000

Research organisation participation must be no more than 30% of the total project costs.

N.B All organisations can see a summary of project costs.

**IFS DOES NOT  
VALIDATE TOTAL PROJECT  
COSTS**

# Funding

## Funding rules

The level of funding awarded will depend upon the type of organisation and the type of research being undertaken in the project

Funding is calculated by project participant

IFS will advise the maximum grant % you can request based upon your answers to:

- type and size of organisation
- research category defined by the lead applicant in the Application Details section of the application





Organisation or type of activity	Technical feasibility studies and industrial research	Experimental development
Business (economic activity)	Micro or Small – 70% Medium – 60% Large – 50%	Micro or Small – 45% Medium – 35% Large – 25%
Research organisation (non-economic activity)	Universities – 100% (80% of Full Economic Costs)  Other research organisations can claim 100% of their project costs	Other research organisations must: <ul style="list-style-type: none"> <li>• be non-profit distributing and</li> <li>• disseminate the project results and</li> <li>• explain in the application form how this will be done</li> </ul>
Public Sector Organisation or Charity (non-economic activity)	100% of eligible costs	Must: <ul style="list-style-type: none"> <li>• be performing research activity and</li> <li>• disseminate project results and explain in the application form how this will be done</li> <li>• ensure that the eligible costs <u>do not include work / costs already funded</u> from other public sector bodies</li> </ul>
Research organisations (undertaking economic activities) Organisations receive funding related to the size of their organisation	Micro or Small – 70% Medium – 60% Large – 50%	Micro or Small – 45% Medium – 35% Large – 25%



# Academic partners



Innovate  
UK

# Why Je-S?

We use the Research Councils' Joint Electronic Submission System (Je-S) to collect academic finances.

The Je-S system automates the collection of Full Economic Costs (FEC) based costs from academic partners and tells them exactly what numbers should be used in the application form for their costs.

Also to collect project finance details from non-HEIs (e.g. RTOs) that are claiming they are carrying out academic quality work and want to be funded on an FEC basis.

Using Je-S means that Innovate UK follows standard Research Council guidelines on funding universities and enables Research Councils to easily co-fund Innovate UK projects.

**The Je-S system is completely separate from Innovate UK and we cannot advise on its usage.**

# Project costs – academic partners

Enter the TSB reference number here



Enter the TSB Contribution column figures from *your* J-eS output document into the project costs section of the application.

Upload the Je-S with council status form as a PDF at the bottom of the screen.

**Any queries, contact Je-S Helpdesk (not Innovate UK)**

- [jeshelp@je-s.ukri.org](mailto:jeshelp@je-s.ukri.org)
- 01793 444164

## TSB reference

This number is found at the top of your Je-S form

My REF

## Financial resources

Please enter the following costs from the summary of resources section on your Je-S form

Directly incurred	TSB Contribution (please refer to the TSB contribution column)
Staff	11
Travel & subsistence	22
Other costs	33
<b>Subtotal</b>	£ 66
<b>Directly allocated</b>	
Investigators	44
Estates Costs	55
Other costs	66
<b>Subtotal</b>	£ 165
<b>Indirect costs</b>	77
<b>Exceptions</b>	
Staff	88

# Submitting your application



Innovate  
UK



# Checking your finances are complete

## Finances Summary

The following organisations have not marked their finances as complete:

- EMPIRE LTD



[Return to the finances section to complete your finances](#)

This application cannot be submitted unless finances have been marked as complete by all partners.

		Total costs	% Grant	Funding sought	Other public sector funding	Contribution to project
<b>Barry Shaw Experts Ltd</b> Partner	✓	£230,162	70%	£161,113	£0	£69,049
<b>EMPIRE LTD</b> Lead organisation	⚠	£282,655	70%	£197,859	£0	£84,797
<b>University of Bath</b> Partner	✓	£239,114	0%	£0	£0	£239,114
<b>Total</b>		<b>£751,931</b>		£358,972	£0	£392,959

All organisations have marked their finances as complete.

Research organisation participation is no greater than 30% of the total project costs.

IFS DOES NOT VALIDATE TOTAL PROJECT COSTS

# Editing a submitted application

test  
Application number: 242  
Competition: 599 Covid de minimis round 2

Awaiting assessment

Application submitted  
[Reopen](#)

Reopen by clicking here


Terms and conditions

You must agree to these before you submit your application.

[Award terms and conditions](#)

✓ Complete

Review and submit

 [Print your application](#)

Remember to press  
'Submit application'

Terms and conditions

[Award terms and conditions](#)

✓ Complete +

Submit application

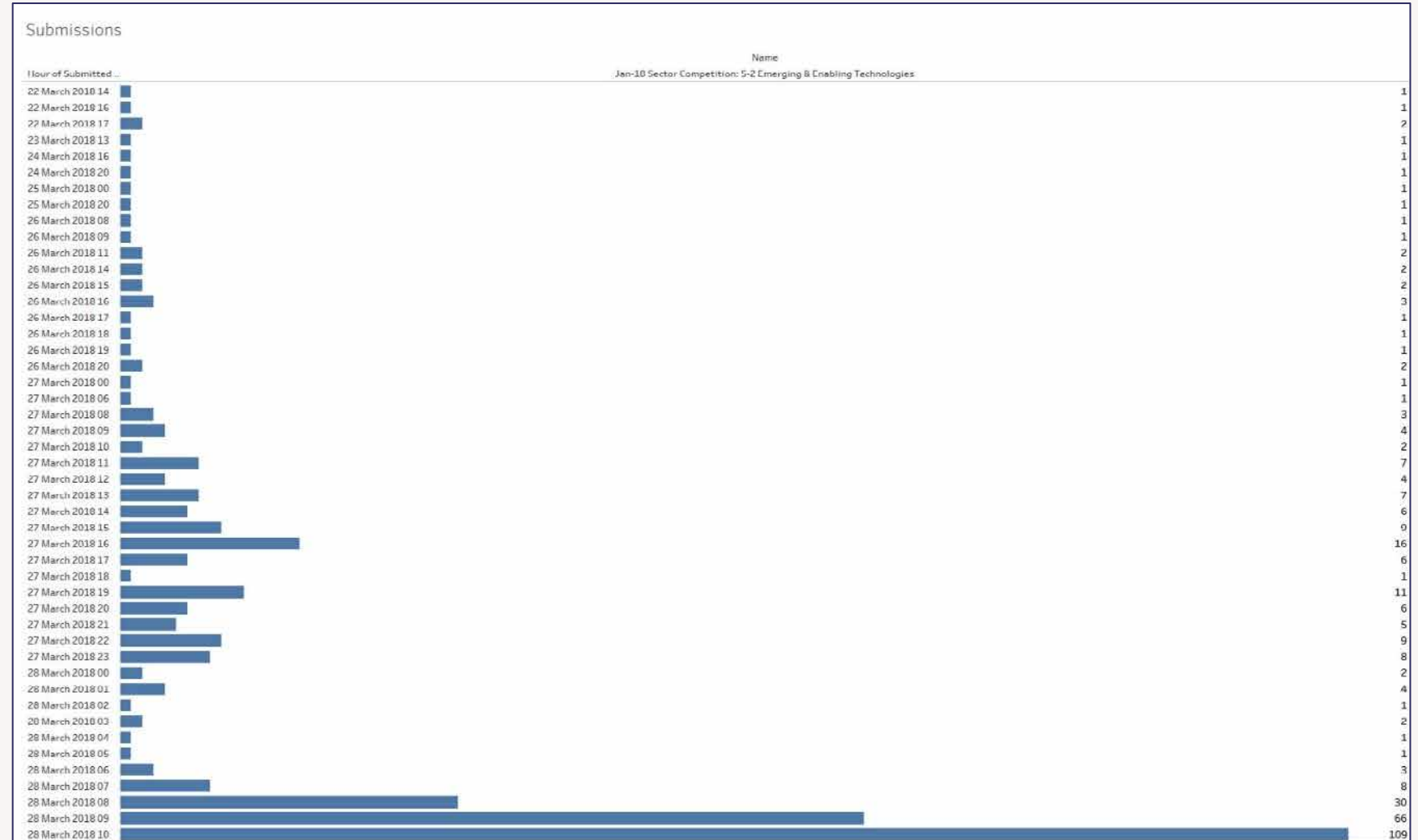
Need help with this service?

[Contact us](#)



# Submit your application early!

Customer Support can help resolve any issues you might have when submitting but only if they are contacted before the deadline. Once the deadline has passed, your application cannot be submitted.



Innovate  
UK

# Assessment



Innovate  
UK



# How our assessors assess?

All applications are assessed by an independent **pool** of assessors drawn from industry and academia.

We require our assessors to maintain confidentiality and declare any conflicts of interest, ensuring a fair and transparent process.

Assessors are unable to contact you regarding your application content. Therefore, your application should contain:

- a justification for a viable opportunity for growth and a level of innovation that necessitates public investment
- clear and concise answers
- the right amount of information
- no assumptions

We recommend you review the competition brief and guidance for help.

# How are successful applicants selected for funding?

Assessors will score each section of your application.

After the assessor process, InnovateUK will independently moderate assessor scores. Any outliers in scores may be removed and your total score will be updated.

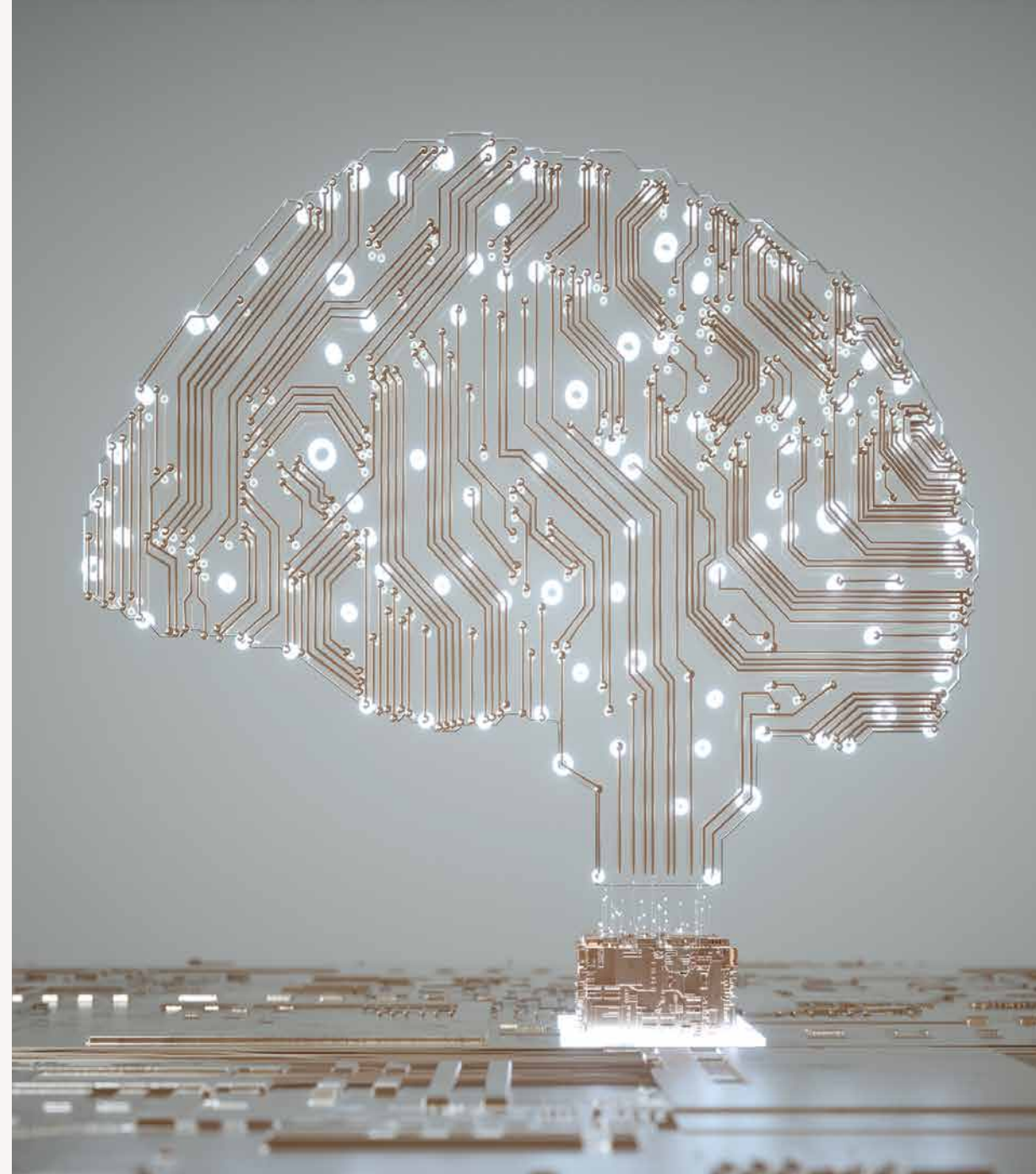
You will then receive email notification to offer grant funding or to inform you that your application has been unsuccessful on this occasion.

Whether successful or unsuccessful in receiving grant funding, you will receive feedback on your application. It is intended to be constructive in nature and to highlight both the strong as well as the weak areas of your application.

# Project setup for successful applicants



Innovate  
UK



# Notification

## **If you are unsuccessful in this competition**

You can use the feedback from the assessors to develop your idea and apply into another competition that allows previously submitted applications

## **If you are successful in this competition**

- you will be assigned a Delivery Executive who will guide you through the Project Set Up process
- you will have 7 days to complete the project team, project details and bank details
- you will then have 30 days to complete project set up – funding may be withdrawn if this is not completed within this timeframe

**Please ensure all your contact details in the IFS portal are correct and up to date and that you regularly monitor it.**



# Project set up

- All communication will be through IFS.
- Lead applicant must provide collaboration agreements and exploitation plans if applicable.
- Any partners with individual total project costs of **up to** £50,000 must provide evidence with a Statement of Expenditure (SoE).
- Any partners with individual total project costs **above** £50,000 must provide evidence with an Independent Accountants Report (IAR).

# Project delivery

- All grants are paid quarterly in arrears and are only paid following quarterly reporting and necessary audits.
- Claims can only be made for costs incurred and paid between the project start and end dates.
- Monitoring of the project includes a visit from the appointed Monitoring Officer.

# Additional Support



Innovate  
UK



# Innovate UK EDGE

*Bespoke growth and scaling support at the business end of innovation*

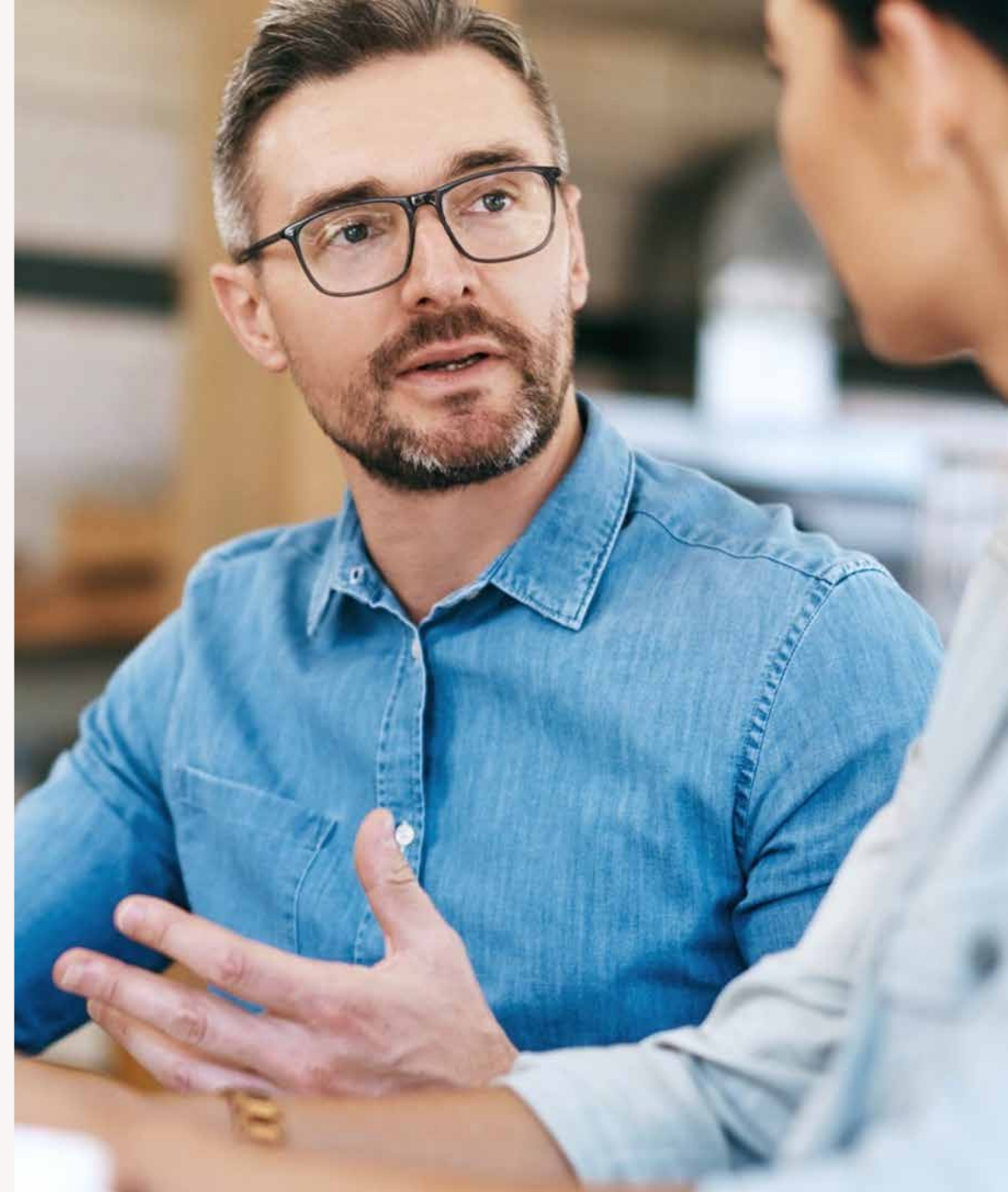
- Intensive growth and scaling support tailored to the needs of each of our ambitious innovation-driven clients
- Offered alongside project funding to Innovate UK award winners, most of whom engage us. We are also available to all high growth potential innovative small or medium-sized businesses\*
- Engagement at early, growth and scaling stages, with our core high growth service and enhanced Scaleup Programme
- Delivered by 290 innovation and growth specialists embedded in regional ecosystems across the UK, including a board of expert scaleup directors

*\*subject to eligibility and currently in all nations and regions outside Scotland*

# Innovate UK EDGE

An innovation and growth specialist, or scaleup directors, work with a company's leadership to hone its commercial strategy and help it take targeted action to, for example:

- Build investment readiness
- Manage innovation effectively
- Enter global markets
- Providing local to national to international growth and scaling support





# Equality, Diversity & Inclusion

- We are on a mission to embed Equality, Diversity, and Inclusion in everything we do, internally and externally.
- We believe that great ideas can, and do, come from anyone and everyone.
- We know that diversity and inclusion in businesses contributes to enhanced innovation, satisfaction, performance, and ultimately, commercial success.



# Available Support

- We welcome and encourage applications from people of all backgrounds and are committed to making our application process accessible to everyone.
- This includes providing support for people who have a disability or long-term condition and face barriers applying to us.
- So, if you would like any support, please contact our Customer Support Service Team on [support@iuk.ukri.org](mailto:support@iuk.ukri.org) or at **0300 321 4357**.



Innovate  
UK





# What to Expect

1.

Contact our Customer Support Services Team as early as possible – we suggest at least 15 working days before the deadline

2.

Complete a request form which will be sent to our partner Diversity & Ability (D&A)

3.

D&A will conduct a Discovery Conversation with you and make reasonable adjustments recommendations

4.

D&A will organise and deliver bespoke reasonable adjustments for and with you

5.

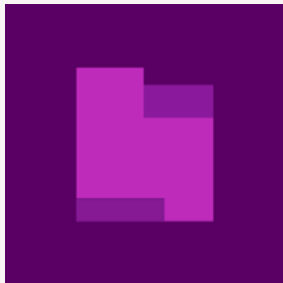
Submit your application – please do so well ahead of the deadline as extensions cannot be provided

# Contact

## Customer Support Services

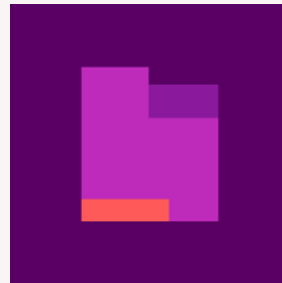
0300 321 4357 (Monday - Friday 9-5pm)

[support@iuk.ukri.org](mailto:support@iuk.ukri.org)



**Innovate UK**

[ukri.org/councils/innovate-uk](https://ukri.org/councils/innovate-uk)



**Innovate UK KTN**

[ktn-uk.co.uk](https://ktn-uk.co.uk)



**Innovate UK EDGE**

[innovateukedge.ukri.org](https://innovateukedge.ukri.org)



Innovate  
UK



Innovate  
UK

# Thank You



@InnovateUK



Innovate UK



Innovate UK



@weareinnovateuk

# Q&A



# Innovator pitches

1. Huw Sullivan | MTC
2. Ben Rowton | NPL
3. Matt Streets | Rawwater
4. Jennifer Wen | University of Surrey
5. Rebecca Jeffery | Catapult
6. Robin Morris | Henry Royce Institute



The Manufacturing Technology Centre (MTC) was established to prove innovative manufacturing processes and technologies in an agile environment in partnership with industry, academia and other institutions. We are a Research Technology Organisation (RTO) with 900+ staff based out of Coventry in the West Midlands and part of the Catapult network.

The MTC houses some of the most advanced manufacturing equipment in the world, creating a high-quality environment for the development and demonstration of new technologies on an industrial scale to support the delivery of Net Zero. We are supporting and enabling the hydrogen industry through our expertise and innovation at every stage of the value chain, from production through to distribution and on to end use, accelerating the development and delivery of new hydrogen technologies such as next generation electrolyzers and hydrogen storage devices and pressure vessels. We have existing Hydrogen relevant programmes under BEIS NZIP, ATI, APC and wider UKRI initiatives.

Name: Huw Sullivan – Sector Development Lead for Clean Energy

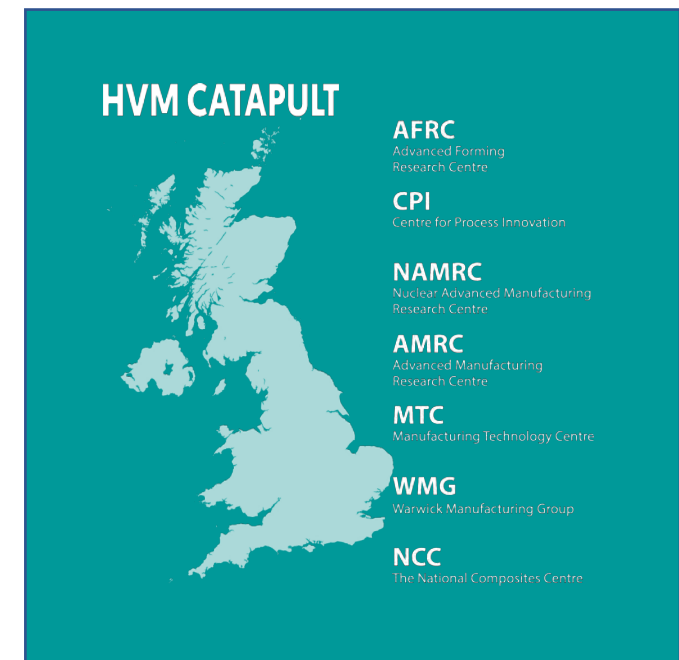
E mail: [huw.sullivan@the-mtc.org](mailto:huw.sullivan@the-mtc.org)

Phone: 07785 254788

[www.the-mtc.org](http://www.the-mtc.org)

and

<https://www.the-mtc.org/markets/power-energy/where-we-operate/hydrogen-carbon-capture/>





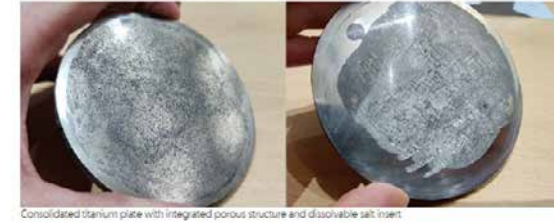
## Project idea

- Development and manufacture of innovative component technologies in production, storage or distribution
  - E.g. tanks, pipes, seals,
- Supply chain capability development e.g. supporting or converting a manufacturing capability to deliver components for the hydrogen supply chain for storage or distribution
- Support for feasibility projects, industrial research projects and experimental development projects



## What's Innovative – examples could be ..

- Potential first of a kind demonstrators
- Companies cross-fertilising into the Hydrogen supply chain
- New technologies to market
- New materials / material types to market



## Services we can offer

- Accelerator Programmes
- Automation
- Scale-up and Factory Optimisation
- Design for Manufacture
- Manufacturing Process and Materials Development
- Product Design
- Prototype build & testing
- Skills Development
- Supply Chain Development – incl. readiness assessments
- Consortium building through existing programmes and relationships with MTC and HVMC



## Partners / services we seek

- Collaborations, especially where there is a need to de-risk first of a kind builds
- Collaborations where the partner is 'seeking' skills they do not have and we can support – e.g. Design for 'x'
- Collaborations where there is a manufacturing element which needs optimising
- MTC is typically not focused on IP as we are an RTO



# The National Physical Laboratory

Metrology to support hydrogen research and development

Ben Rowton, Energy Systems Strategy Lead

16<sup>th</sup> February 2023

# The National Physical Laboratory (NPL)



- NPL is the UK's National Measurement Institute (NMI), PSRE, > 1200 staff across 440 labs, owned by BEIS
- Helping to accelerate the development of world-leading electrochemical technologies and supporting a safe and sustainable transition to hydrogen.
  - [Energy Transition Report – Hydrogen](#) – details metrology challenges across hydrogen economy.
- NPL's measurements are traceable to national standards, providing confidence to developers, investors, adopters and regulators within the hydrogen economy.
  - Manage and deliver a government funded programme focusing on hydrogen metrology
  - Participate in international and European research, including Hydrogen Europe
  - Work in partnership with, or directly for industry, regulatory bodies and academic institutes.
- NPL are the UK representative on many national and international hydrogen standards committees



# Remit of NPL's support

## Fuel Cells & Electrolysers



Provision of measurement and modelling techniques to maximize the performance, durability and safety of electrochemical hydrogen technologies including fuel cells and water electrolyzers.

## Hydrogen - Materials Testing



Materials qualification for metallic, polymer and composite components and structures in various hydrogen applications, including but not limited to; transmission/distribution of hydrogen by network operators; materials for the aerospace sector; and materials used within electrochemical technologies.



# Remit of NPL's support

## Hydrogen - Emissions



Transferring emissions measurement services from natural gas to hydrogen; instrument development, method development and validation, standardization and dissemination of best practice, and provision of measurements for end users.

## Hydrogen - Gas QA/QC



Quality assurance of hydrogen according to ISO 14687. Provide quality control plans, sampling, purity analysis, provision of test reports and Primary Reference Materials (PRMs) containing low level impurities in hydrogen suitable for laboratory testing, or calibration of analyzers.



# Thank you for listening

Email: [Ben.rowton@npl.co.uk](mailto:Ben.rowton@npl.co.uk)  
Telephone no: 07890 612 905





# Rawwater Engineering Company Limited



- **About Rawwater**

- We provide [research and consultancy](#) for the Energy sector (*historically, the O&G industry*)
- Specialise in [predictive modelling](#) and [extreme environment testing](#)
- Our pedigree is in understanding and providing solutions to control [problematic microbiology](#)
- [Industrial SME](#) based in the North-West of England with strong UK academic links

- **Contact details**

- **Matt Streets**, Head of Division and Senior Research Scientist
- [matt.streets@rawwater.com](mailto:matt.streets@rawwater.com)
- +44 (0) 1925 768910
- <https://www.linkedin.com/in/matt-streets-9911a315a/>



## 1. Our Project Idea

- Simulating extreme subsurface environments to **minimise failure** of long-term hydrogen storage
- Evaluating the impact of deleterious microorganisms on **asset integrity and safety**
- Optimisation of microbial **mitigation strategies** for candidate assets

## 2. What's innovative about it?

- Traditional laboratory studies do not investigate microbial activity under realistic subsurface conditions (e.g., standard bottle tests)
- Controlled simulation studies **providing insight** into subsurface microbial communities
- Potential to significantly **improve guidance** for asset selection based on subsurface conditions



## 3. Services we can offer

- Rawwater's **high-pressure bioreactor laboratory facilities**, based in the UK
- **Unique database** of 600+ years of pressurised bioreactor data
- Use our **pedigree** in oilfield reservoir simulations to **simulate candidate assets** for hydrogen storage

## 4. Partners we are seeking

- Companies directly involved in **asset selection, operation and maintenance**
- Requirement for **field samples** to provide realistic microbial populations for testing
- Links to **other research institutes and universities** interested in utilising Rawwater's laboratory capabilities

## Safety in hydrogen storage and distribution supply chain



- **Fire and Explosion Modelling Group (FMEG)**
  - Jennifer Wen, Head of FMEG
  - Member and Task Force Leader, European Hydrogen Safety Panel (EHSP), Clean Hydrogen Joint Undertaking, European Commission
  - Conducting safety research and consequence to support hydrogen storage and distribution chain
- **Contact details**
  - Jennifer Wen
  - [J.wen@surrey.ac.uk](mailto:J.wen@surrey.ac.uk)
  - 07796707950

## 1. Your Project idea

- Join a consortium to address safety aspect.

## 2. What's innovative about it?

- Safety is paramount for:
  - a successful hydrogen storage and distribution supply chain, and
  - its public acceptance.

## 3. The services you can offer?

- Establish risk and consequence analysis framework to define hazard distances.
- Propose safety barriers, zoning strategies and separation distances and validate their efficiency.
- Conduct risk analysis for the hydrogen storage and distribution supply chain.

## 4. The partners/services you seek?

- Operators of hydrogen storage and distribution facilities and their supply chain.
- Service providers for the above.
- Local authorities for permitting.

# Offshore Renewable Energy Catapult (OREC)

ORE Catapult is a leading UK research and technology organisation (RTO) working in the field of offshore renewable energy. Our focus areas include research and innovation, testing and validation, analysis and strategy, and supply chain support.

With a major ramp up of UK offshore wind expected in the coming decades, and relatively limited electrical infrastructure, hydrogen offers a promising route to integrating this new generation into the energy system. ORE Catapult is developing capabilities to help establish this new vision and has ambitions to be a champion of green hydrogen.

Contact: Rebecca Jeffrey -  
[rebecca.jeffrey@ore.catapult.org.uk](mailto:rebecca.jeffrey@ore.catapult.org.uk)





# OREC Hydrogen R&D

## Expertise:

- Detailed technology studies
- Technoeconomics and project economics
- Energy systems & system integration
- Market gap analysis

## Test Assets:

- 1MW grid emulator
- 1KW scale complete hydrogen system
- Future capabilities in the pipeline – please enquire

ORE Catapult is celebrating its 10 year anniversary! Since 2013:

### Innovation Projects

677

Million in GBP  
We have been at the heart of over GBP 677 million of innovation projects by total value.

### R&D Projects

650

We have partnered in over 650 research and development projects.

### Commercialisation

148

We have been instrumental in bringing 148 innovative new products and services to market.

### SMEs Supported

1350

We have supported over 1350 UK SMEs.

### Academic Papers

250

We have published over 250 research and analysis papers.

Open call to access our expertise for different types of projects, for example:

- Maximising efficiency
- Energy storage & evaluation
- Novel control systems
- Managing fluctuating output



# Henry Royce Institute

HENRY  
ROYCE  
INSTITUTE

A partnership of leading materials research institutions

Capabilities to help support the transition to a zero-carbon energy system:

Structural, characterisation, analytical equipment

Electrochemical systems and hydrogen challenge

Robin Morris (University of Oxford)

[robin.morris@materials.ox.ac.uk](mailto:robin.morris@materials.ox.ac.uk)

01865 283997

## Project Idea

Address needs identified through roadmapping activities  
Accelerate innovation

## Innovative

Focus on advanced materials  
Wide collaboration  
Ability to support feasibility studies and sprint projects

## Services offered

Facilities, expertise across multiple partners  
Convening: national challenges  
Sprint project funding

## Partners sought

Companies with materials challenges  
Industry-led requirements with identified needs for analysis, characterisation or collaboration

The logo for ROYCE, featuring the word "ROYCE" in a bold, white, sans-serif font. The letters are positioned on a dark teal background that is part of a larger graphic element at the bottom of the slide. To the left of the text, there is a yellow and grey geometric shape that also forms part of the background design.

# ROYCE

# Application Support Service

Jenni McDonnell MBE

[Jenni.McDonnell@ktn-uk.org](mailto:Jenni.McDonnell@ktn-uk.org)

[www.ktn-uk.org](http://www.ktn-uk.org)



Innovate UK  
KTN

# Services



- Help to understand the competition information
- Help with the application process
- Help to find partners

# Help to understand the competition information

## Competition Guidance

Guidance: <https://lnkd.in/epPQvAJ9>

## Eligibility Checks and Questions

We encourage you to contact the support service if help or clarification is needed as you work on your application. Please put the title of the competition in the subject line

[support@iuk.ukri.org](mailto:support@iuk.ukri.org)

Tel: 0300 321 4357 (between 9.00am – 5.00pm week days)

## KTN support

You can also contact KTN to ask questions

[Jenni.McDonnell@iuk.ktn-uk.org](mailto:Jenni.McDonnell@iuk.ktn-uk.org)



# Help with the application process

## Application review service

Once you have completed your application KTN can review it prior to submission.

A fresh pair of eyes can make all the difference and we will provide constructive feedback on how you can improve your answers.

Application reviews will be allocated on a first come first served basis.





# Help to find partners



## Networking platform

Register at <https://hydrogensupplychain.meeting-mojo.com/>

Complete your profile to improve usability and search for partners

The networking platform will remain open for the duration of the competition window.

You can book confidential 10 min discussions with Innovate UK and KTN after today's event via the networking platform.

# Help to find partners

## Matchmaking event, 21<sup>st</sup> Feb in Manchester

An in-person event to help you to meet suitable partners to collaborate with on your project.

### Hear from

- Innovate UK on the scope of the hydrogen storage and distribution supply chain fund
- Potential applicants who have novel and innovative technologies and are seeking partners
- Take part in numerous networking activities to make as many new connections as possible.

Register <https://lnkd.in/e-UjE8Bi>

Places are limited so don't delay



# Help to find partners

## Join the KTN Hydrogen Innovation Network:

<https://info.ktn-uk.org/p/2VFU-7E7/hydrogen-economy-sign-up>

Register for our new **Hydrogen Supply Chain Directory** to raise your profile or to look for hydrogen partners from across all aspects of the supply chain – production, storage, distribution and use

<https://iuk.ktn-uk.org/programme/hydrogen-supply-chain-directory/>

## Thank you

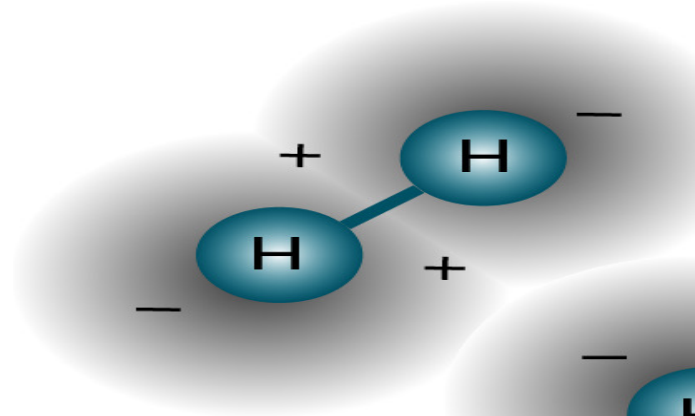
Jenni McDonnell MBE  
Thermal energy systems  
Innovate UK KTN  
[Jenni.McDonnell@ktn-uk.org](mailto:Jenni.McDonnell@ktn-uk.org)

# Hydrogen Innovation Network 2023

**Network of businesses, academia and public sector including local authorities and third sector in sharing knowledge and best practice on Hydrogen as a sustainable alternative fuel**

**Cross sector, cross team, collaborative activity with teams such as Clean energy and infrastructure, Chemistry and IB, Transport, Materials, Net Zero places and the Investor team**

**Current membership of over 3000 focussed on the challenges to enable local clean hydrogen uptake at scale**





# Hydrogen Innovation Network - Purpose and Landscape

## *Purpose:*

- To create a non-competitive advisory group to pool knowledge from existing hydrogen communities to validate views on the current challenges to enabling local clean hydrogen **uptake** at scale and cost and to find innovative solutions to those challenges.
- *Hydrogen Landscape is busy and complex! How can this be simplified? How can we make sure innovation keeps up with deployment?*





# Hydrogen Innovation Network Team

The Hydrogen Innovation Network has been, and continues to be a true cross sector, cross team, collaborative activity with teams such as Clean energy and infrastructure, Chemistry and IB, Transport, Materials, Net Zero places and the Investor team all key to its success.



**Steff**



**Jenni**



**Charlene**



**Olivia**



**Eleanor**



**Simon**



**Nikoleta**



**Mark**



**Avijita**



**Lucy**



**Debra**



**Sheena**



**Pete**



**Michael**



**Sally**



**Matt**

# Activity



**Tees Valley Hydrogen Hub – connecting partners across the whole supply chain**



**Simplifying and bringing industry together - Standards**



**Cross sector activities – enabling collaboration**



**Deep expertise through industry presentations**

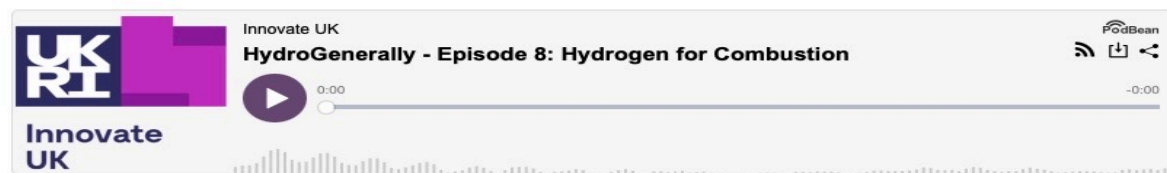


**Sharing knowledge and positioning KTN**



**Influencing**

## Episode 8: Hydrogen for Combustion



In this episode, we talk about hydrogen combustion with special guest [Duncan Engeham](#), European Research and Development Director at [Cummins Inc.](#)

[Access the Episode 8 transcript.](#)

## Episode 9: Nuclear Hydrogen



In this episode, [Debra Jones](#), Chemistry Knowledge Transfer Manager and Ray Chegwin, Nuclear Knowledge Transfer Manager from Innovate UK KTN, talk about nuclear uses for hydrogen with special guest [Allan Simpson](#), Technical Lead at the [National Nuclear Laboratory](#).

[Access the episode 9 transcript.](#)

## Episode 10: Green Hydrogen Production



In this episode of the podcast, [Debra Jones](#), Chemistry Knowledge Transfer Manager and [Simon Buckley](#), Zero Emission Mobility Knowledge Transfer Manager from Innovate UK KTN, talk about green hydrogen production with their special guest [Chris Jackson](#), CEO & Founder at [Protium](#).

Hydrogen based solutions have been receiving attention but there is a lack of knowledge and skills to ramp up Hydrogen uptake. To address the lack of knowledge in Hydrogen arena, podcasts projects was born.

Podcasts and video interviews planned for the coming year.

10 episodes released, 20- 30 minutes, easily digestible

Can be listened on the website, Spotify and Podbean app



# Hydrogen supply chain directory

## Hydrogen Supply Chain Directory



MENU

The Supply Chain Directory shares details of end users who are either currently using hydrogen or are proactively planning to. It also aims to showcase solutions-providers in this space who may be able to help these end users move closer to their hydrogen goals.

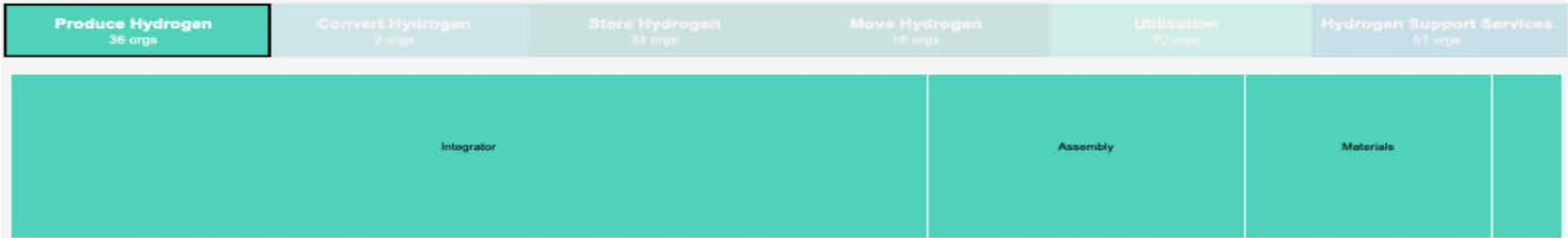
Select Organisation Type

Select Nation/Region

(All)

(All)

**Supply Chain View** Click to on a section of the supply chain to filter the dashboard. Hover over the chart for more information.



### UK View

Based on postcodes provided by respondents. Hover over the map for more information about each organisation.



### Org View

Click on the chart to filter on a certain region and/or organisation type.

- Industry
- University
- RTO/Contract RO
- Advisory and Consulting
- Project Developer
- Investment

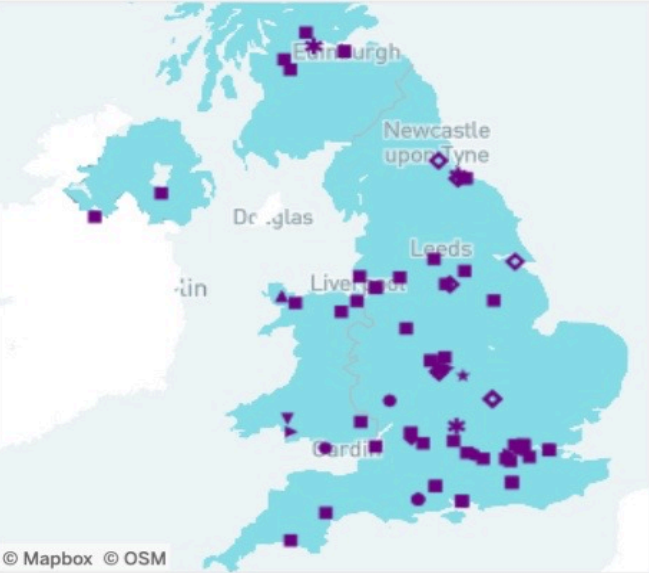


# Hydrogen supply chain directory

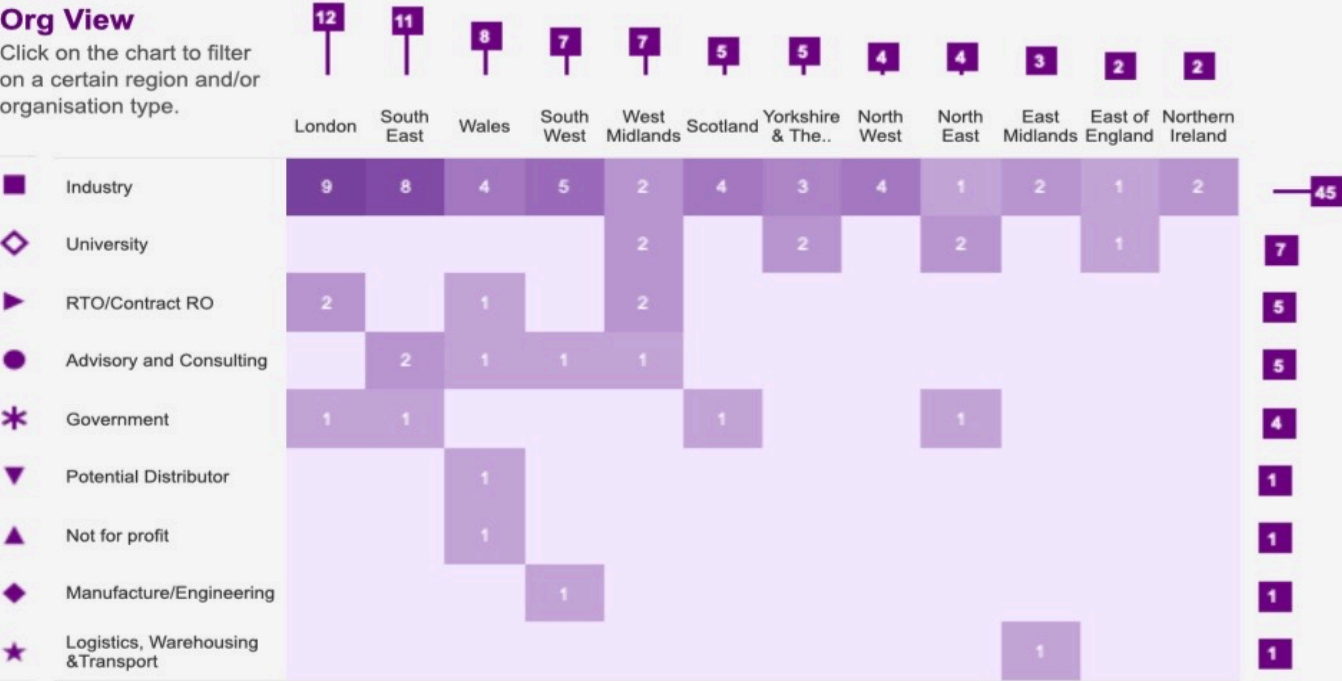
**Supply Chain View** Click to on a section of the supply chain to filter the dashboard. Hover over the chart for more information.



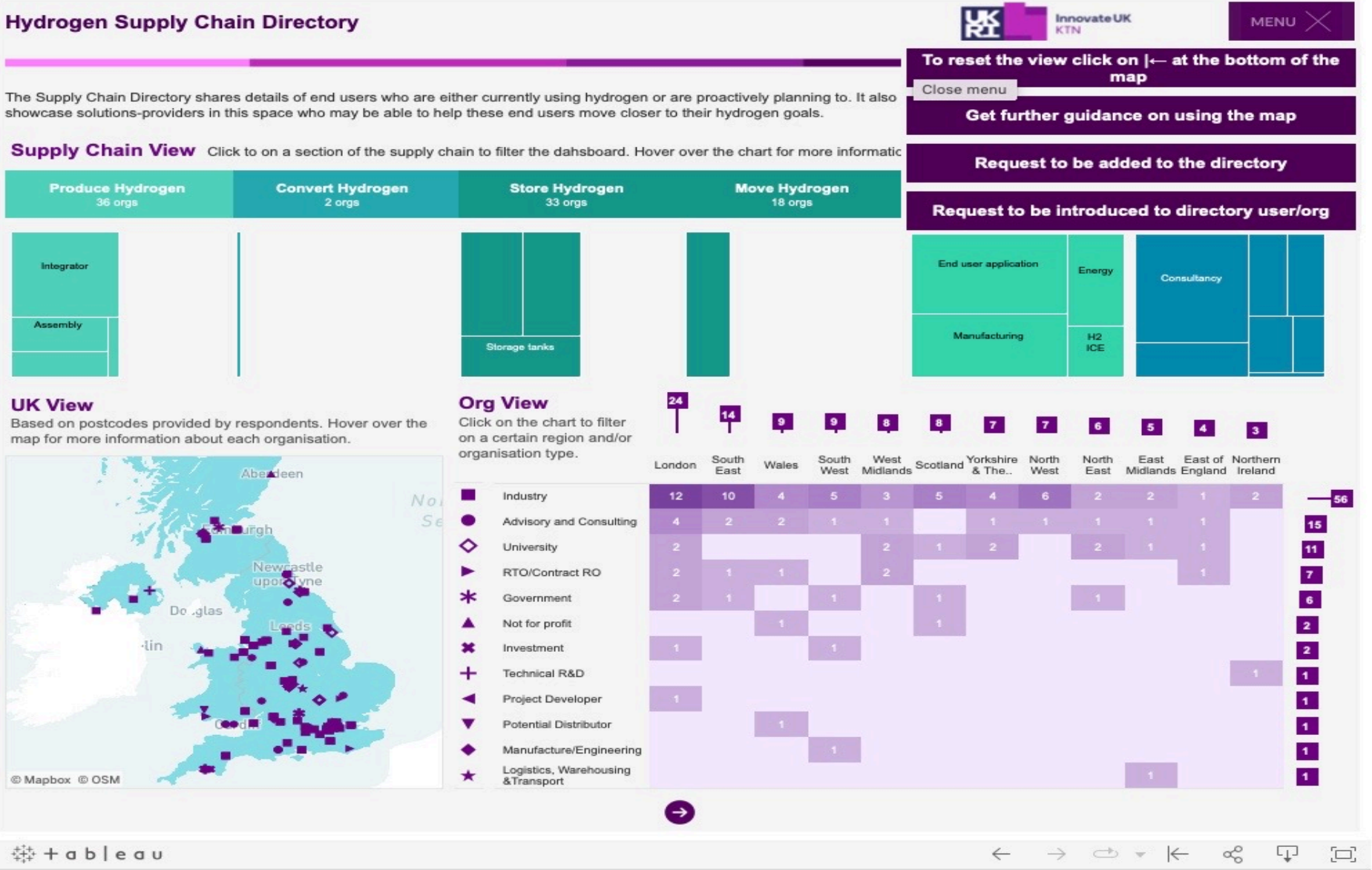
**UK View**  
Based on postcodes provided by respondents. Hover over the map for more information about each organisation.



**Org View**  
Click on the chart to filter on a certain region and/or organisation type.



# Hydrogen supply chain directory





# Hydrogen supply chain directory



InnovateUK  
KTN

## Hydrogen Innovation Network End User Solutions Directory

KTN's Hydrogen Innovation Network are working on an End User Solutions Directory to provide visibility of which end users are either using or planning to use hydrogen combined with practical solutions providers who could help develop their hydrogen use further.

If you would like to feature in this end user solutions directory then please complete the form below.

To clarify, you must either be a solution provider or an end user to be part of the directory.

### Your details

First name \*

Last name \*

Email \*

Job Title \*

Which sectors are you most interested in? \*

- ☐ Automotive
- ☐ Rail
- ☐ Aerospace
- ☐ Maritime
- ☐ Defence
- ☐ Stationary
- ☐ Glass
- ☐ Cement
- ☐ Steel
- ☐ Chemical
- ☐ Oil and Gas
- ☐ Other

### Your organisation

Organisation name \*

Region (Please select) \*

Postcode (Ideally for main plant or production facility) \*

Organisation type (Please select)

Organisation website (URL) \*

Organisation size (Please select) \*

Main organisation activity: \*

- ☐ Industrial - Glass
- ☐ Industrial - Steel
- ☐ Industrial - Cement
- ☐ Chemicals - Commodity
- ☐ Chemicals - Speciality
- ☐ Chemicals - Life science

- ☐ Chemicals - Consumer products
- ☐ Transport - Buses and HGVs
- ☐ Transport - Aviation
- ☐ Transport - Maritime
- ☐ Transport - Off Highway
- ☐ Transport - Rail
- ☐ Manufacturer
- ☐ Service Provider
- ☐ Technology Developer
- ☐ Research
- ☐ Other

Which part of the supply chain describes your organisation? \*

- ☐ Chemicals - commodity, speciality, Life science or consumer products
- ☐ Electronics
- ☐ Consultancy
- ☐ Asset Management
- ☐ Fuel cell producer
- ☐ Hydrogen Fuel stations
- ☐ H2 ICE
- ☐ Assembly
- ☐ Energy provider
- ☐ Investment
- ☐ Manufacturing
- ☐ Software
- ☐ Telecommunications
- ☐ Infrastructure
- ☐ Transportation of Hydrogen
- ☐ Storage tanks
- ☐ Materials
- ☐ Management systems
- ☐ Integrator
- ☐ End user application
- ☐ Integrator

Please select your organisations main end use application areas: \*

- ☐ Automotive
- ☐ Aerospace
- ☐ Maritime
- ☐ Rail
- ☐ Defence
- ☐ Motorsport
- ☐ Construction
- ☐ Stationary
- ☐ Industrial

Please provide a brief overview of your organisation's activities with the Hydrogen landscape (max 50 words) \*

☐ Please tick to confirm Innovate UK KTN have your permission to process your data. You can view Innovate UK KTN's Privacy Policy [here](#). \*

☐ Please tick to confirm you would like to sign up to the Hydrogen Innovation Network mailing list \*

Submit

UK

# Hydrogen supply chain directory



## Hydrogen Directory Introduction Request

Please sign up below to request an introduction to another user/organisation in the directory.

First name\*

Last name\*

Email address\*

Organisation Name\*

Job Title\*

Organisation of interest/ you would like to be connected with\*

Reason for introduction\*

Your consent

☐ Please tick to confirm Innovate UK KTN have your permission to process your data. You can view Innovate UK KTN's Privacy Policy [here](#). \*

Submit



# Hydrogen supply chain directory

**Hydrogen Supply Chain Directory Guidance**

**Hydrogen End Users Solution Directory**

**Click** on any stage of the supply chain to filter the dashboard on a specific stage or activity.

**Select** a specific nation/region or organisation type you would like to focus on.

Click on any of the 12 icons to filter the dashboard. Hover over the chart for more information.

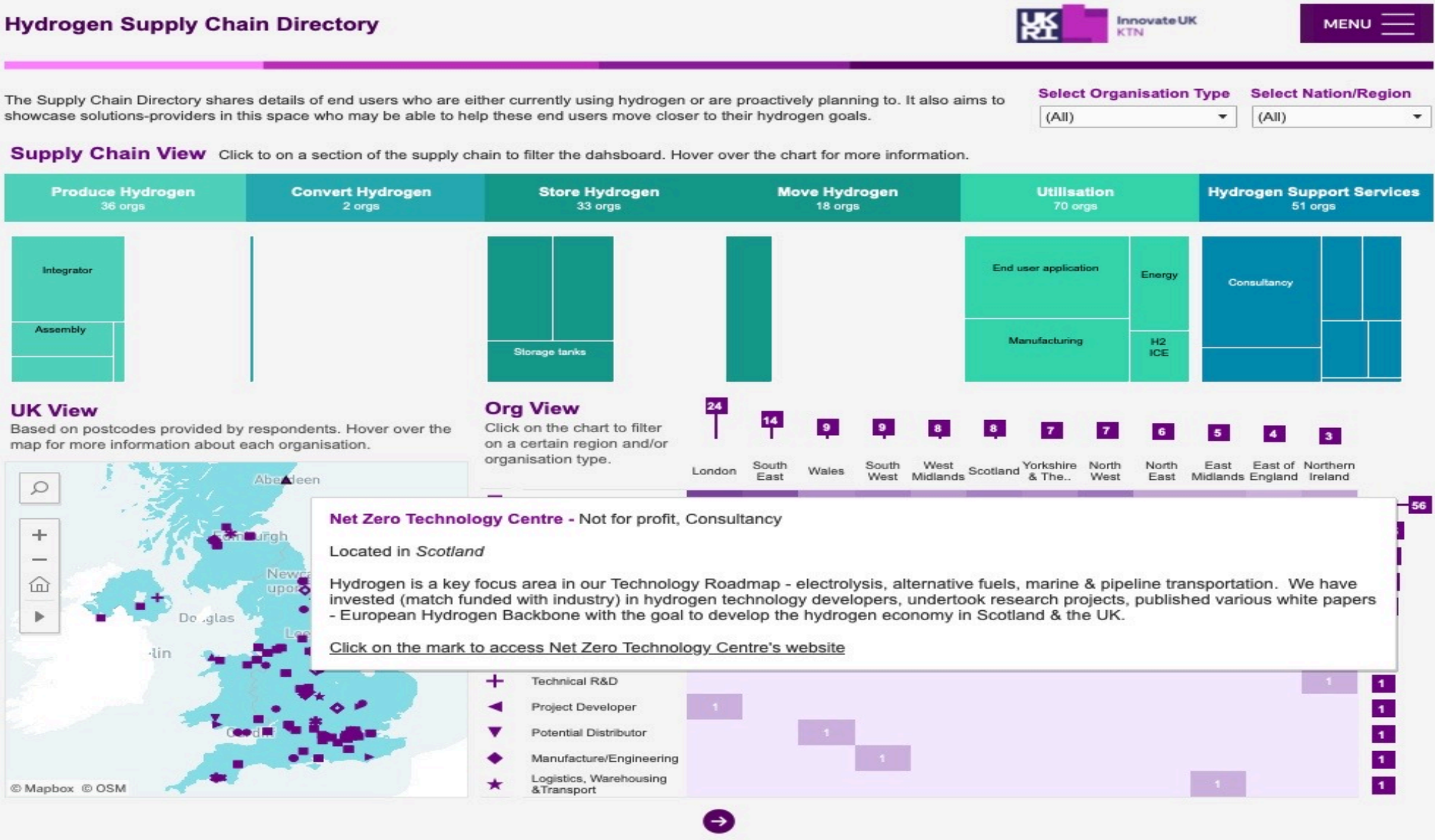
**Supply Chain View:** click on a section of the supply chain to filter the dashboard. Hover over the chart for more information.

**UK View:** click on a region of the UK to filter the dashboard. Hover over the chart for more information.

**Org View:** click on any part of the chart to filter the dashboard. Hover over the chart for more information.

**Click** on this chart to filter the directory on organisations belonging to a specific type, and/or region.

# Hydrogen supply chain directory





# How can Hydrogen Innovation network and supply chain directory help?

- Deep expertise and diverse connections,
- Increase investment in the Hydrogen sector,
- Address the gap in skills, through webinars and stakeholder events,
- Help in creating a robust supply chain landscape through innovation, collaborations and knowledge sharing,
- Innovative solutions through iX (Innovation challenges) relating to Hydrogen uptake and technology,
- Enable collaboration within Hydrogen arena through engagement events with partners,
- Enable knowledge sharing to access government funding and other available funding available across the Hydrogen sector



KTN-iX™ provides you with the opportunity to become directly linked to, or collaborate with, key industry stakeholders who are actively seeking the most innovative solutions to help them achieve their full potential.

# Closing remarks

## Post event information

- Recording of the event
- Link to the presentations
- Link to the networking platform to find partners
- Link to register for the KTN Hydrogen supply chain directory
- Link to register for the matchmaking event on the 21st February in Manchester
- Link to the competition guidance and the Innovate UK application portal
- Contacts for Innovate UK, KTN and Edge support

Meet us on the networking platform for one to one meetings from 1.00pm

<https://hydrogensupplychain.meeting-mojo.com/>



## Thank you

Jenni McDonnell MBE  
Thermal energy systems  
Innovate UK KTN  
[Jenni.McDonnell@ktn-uk.org](mailto:Jenni.McDonnell@ktn-uk.org)