



Innovate
UK

Clean Maritime Demonstration Competitions

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Clean Maritime Demonstration Competitions (CMDc)

CMDC Round 1 (£23m)

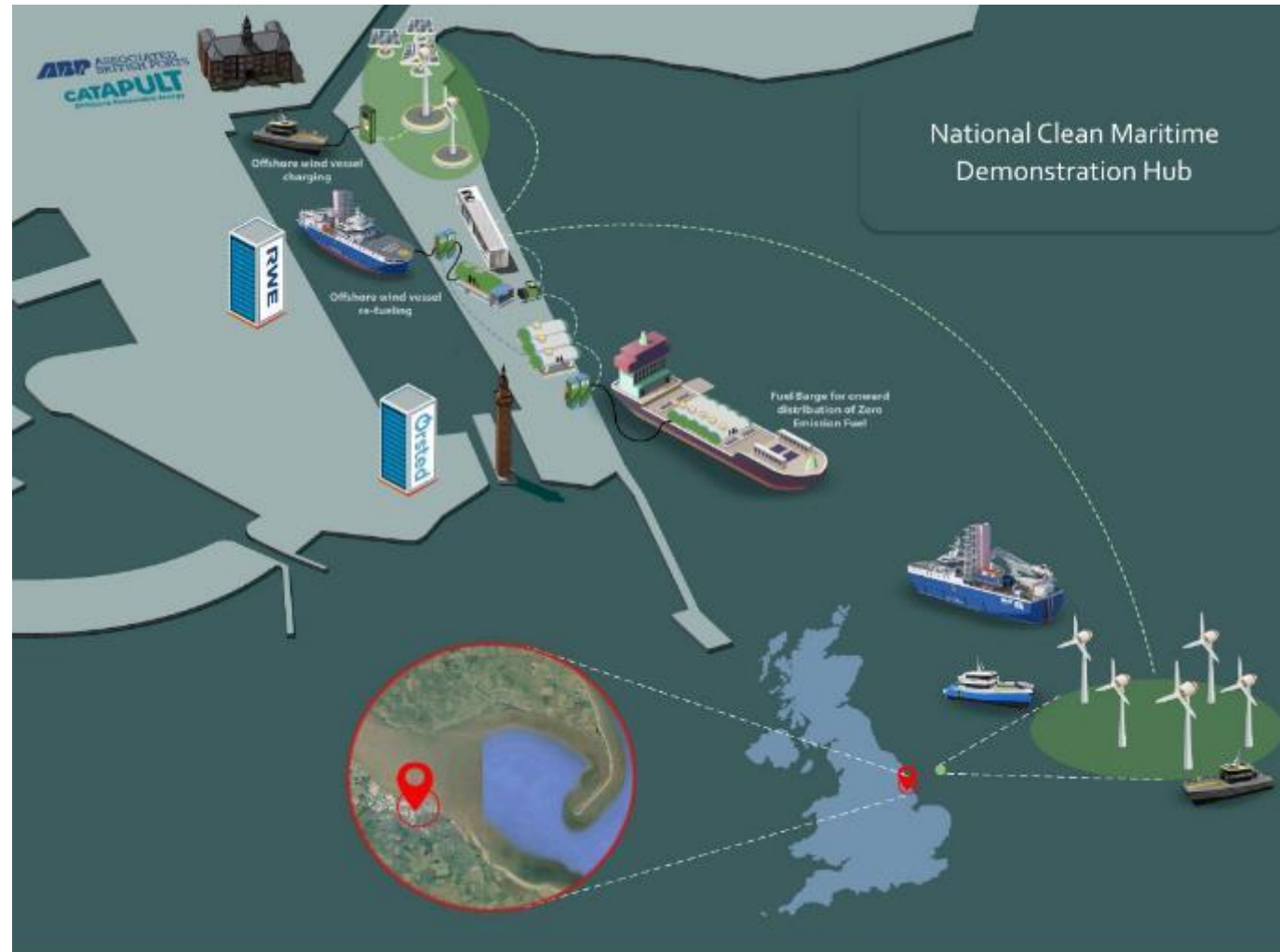
- 209 Organisations
- Projects ran September 21 – March 22

CMDC Round 2 (£12m)

- 121 Organisations
- Winners announced 29 Sept and projects run Jan 23 – Aug 23

CMDC Round 3 (£60m)

- Opened 29 September, applications close 9 November
- Currently best funding opportunity for clean maritime



Clean Maritime Demonstration Competition Round 3

Quick overview

- £60 million funding available
- Competition is open - close is 11:00 9th November
- Projects run 1 April 2023 – 31 March 2025 (24 months)
- Project costs £1m - £10m (across both strands)
- Projects must include 4 week demonstration period
- Funding rates as per competition scope

Funding competition

CMDC Round 3 – Vessel or Infrastructure demonstrations

UK registered organisations can apply for a share of up to £60 million for innovative clean maritime technologies. This funding is from The Department for Transport.

Competition opens: Thursday 29 September 2022

Competition closes: Wednesday 9 November 2022 11:00am

[Start new application](#)

Or [sign in](#) to continue an existing application.

Summary

[Eligibility](#)

[Scope](#)

[Dates](#)

[How to apply](#)

[Supporting information](#)

Description

Innovate UK, part of UK Research and Innovation, will work with The Department for Transport (DfT) to invest up to £60 million in innovation projects. These will be to develop and deploy real world operational demonstrations of clean maritime solutions.

The Clean Maritime Demonstration Competition (CMDC) Round 3 is part of a suite of interventions to be launched by the UK Shipping Office for Reducing Emissions (UK SHORE). UK SHORE aims to transform the UK into a global leader in the design and manufacturing of clean maritime technology.

The aim of this competition is to fund real world demonstrations of clean maritime technologies in an operational setting. Your proposal must, develop, test and deploy novel clean maritime technologies focused on on-vessel technologies or shoreside infrastructure, including at ports and harbours.

Clean Maritime Demonstration Competition Round 3

Structure

2 Strands:

- Strand 1 – Vessels or infrastructure
- Strand 2 – Vessels and infrastructure combined

If you're unsure which strand to bid into, contact support@iuk.ukri.org



Funding competition

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CMDC Funded Research Areas

Vessels

- Battery electric, hydrogen, ammonia, methanol (engine and fuel cell)
- Wind propulsion
- Vessel efficiency
- Enabling technologies and connections to infrastructure

Infrastructure (ports, harbours, offshore)

- Charging and fuelling infrastructure (including offshore)
- Shore power
- Energy generation
- Port vehicles and machinery



CMDC Case Study #1

SHAPE - Shipping, hydrogen and port ecosystems UK

Project Lead – University of Portsmouth

Aims

- Demonstrate modular green hydrogen generation system for Portsmouth International Port
- Deliver hydrogen digital decision support tool for port managers

Achievements

- Delivered plug-and-play hydrogen electrolyser and refueler
- Hybrid hydrogen engine retrofitted to an existing vessel
- Dashboard for port monitoring and implementation tool



CMDC Case Study #2

Clean hybrid alternative marine powertrain (CHAMP)

Project Lead: Mathwall Engineering

Partners: PurpleSector, Boat Club Trafalgar, Control Ltd, Mtech-UK Associates, Bramble, JBT Marine and University of Bath

Aims

- Validate a methanol fuelled hybrid powertrain for the marine market
- Pivot proven automotive technology into the marine sector

Achievements

- A powertrain with improved performance and reduced emissions over current technologies
- Showcased how a motorsport derived approach to the development programme reduced lead times and cost



CHAMP Proof of Concept demonstrator



Proposed configuration of a hybrid rescue boat



CMDC Case Study #3

Offshore wind on-turbine electrical vessel charging system

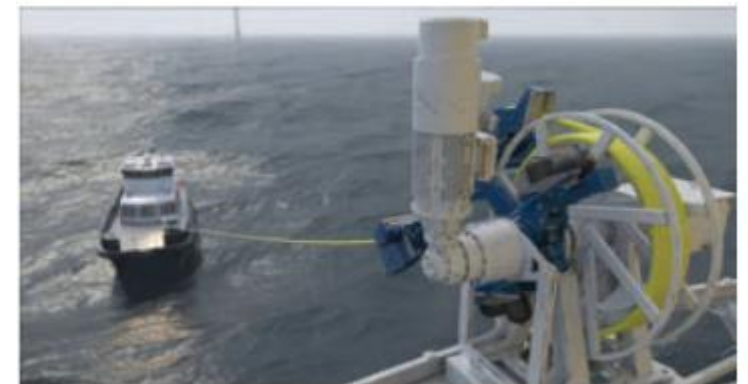
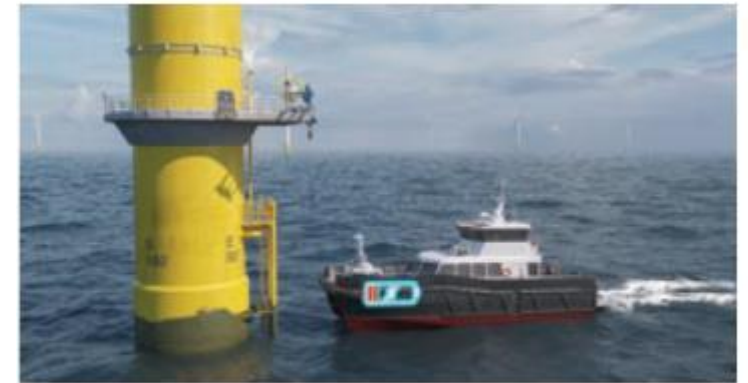
Project Lead MJR Power and Automation
(www.mjrpower.com)

Aims

- Installing electric vessel chargepoints on an offshore wind turbine
- Remove barrier to vessel electrification
- Enable 10-20% reduction of lifecycle emissions of a wind farm project

Achievements

- Designed, built and tested a charging system that uses the infrastructure already in place on a turbine platform



Top - charging system in factory. Middle and bottom - computer renders of charging system in situ on wind turbine

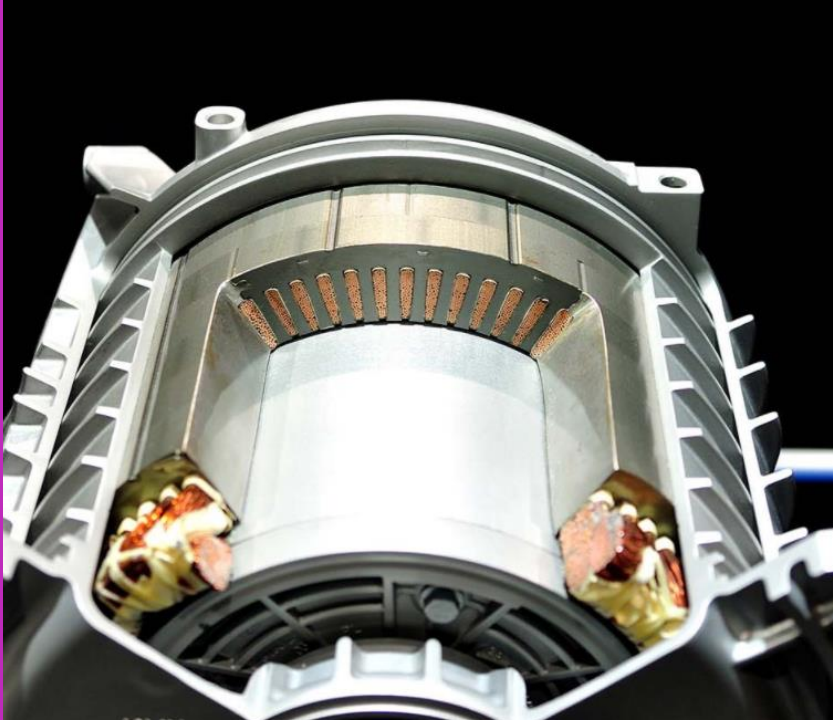
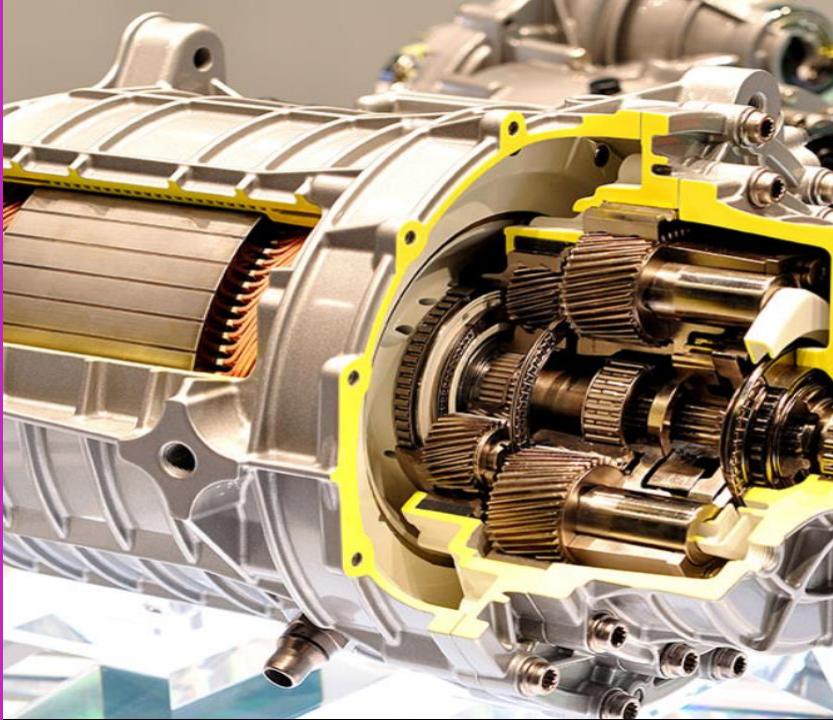


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Further funding opportunities



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Net Zero Mobility: Collaborative R&D

Focus on low to mid TRL innovative propulsion technologies that will underpin the future of net zero mobility.

Up to £10m is available in support of highly innovative R&D projects.

Business-led and collaborative
18 months in duration
£250k – £1.5m total project costs
Multi-modal

Example Themes:

- PEMD
- Fuel cells
- Energy management
- System integration

Briefing event 20th October 2022 - <https://ktn-uk.org/events/net-zero-mobility-programme/>

Further information please contact:

David.Tricker@iuk.ukri.org; Joe.Lyford@iuk.ukri.org



The Tees Valley Hydrogen Transport Hub

The hub is to overcome the adoption barrier for end users of all transport modes through first-hand operational experience, technical, economic and user evidence and dissemination to the industry.

£20m competition

Competition Briefing today (7th October) – recording will be available after event

Targeting:

- Construction, portside, and agricultural vehicles
- Light, medium, and heavy-duty commercial vehicles
- Bus or high occupancy vehicle operations
- Airport operations
- Maritime vessels
- Support for hydrogen refueling

Further information please contact
Steffan.Eldred@iuk.ukri.org



Zero Emission Road Freight

Partnership with the Department for Transport, focused on decarbonizing Heavy Goods Vehicles

Headlined by the £140 million zero emission road freight demonstration competition **[closes for applications on 12/10/2022]**:

- 5 year commercial demonstration of 100s of battery electric and hydrogen fuel cell HGVs
- Focussed on the largest heavy goods vehicles, multiple duty cycles and operators
- State of the art infrastructure and vehicles
- Data collection to underpin future HGV policy

Additional interventions planned for Autumn 2022:

- Innovation in batteries for road freight applications
- Innovation in truck charging and hydrogen refueling infrastructure
- Supporting uptake of battery and hydrogen trucks with public sector deployments (SBRI)





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Thank you

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