

Creating a new hydrogen economy in the Midlands

Faye McAnulla, Programme Director, ERA & HyDEX









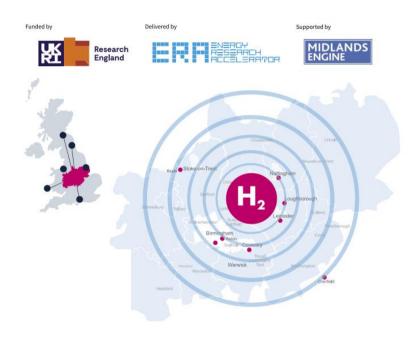




Objectives of HyDEX

- Provide access to large scale demonstrator and test facilities
- Support technology development and R&D
- Support IP development and commercialisation
- Development of hydrogen skills and expertise in businesses
- Civic engagement and policy activities to build understanding
- Support access to international markets and inward investment













Our Industrial Advisory Group

WODCESTED

BOSCH

Rosch and Worcester

Bosch

Martyn Bridges

D2N2 & Wider LEPs Network

Will Morlidge





Baxi Jeff House

ceramic **British Ceramic** Confederation (BCC)

Andrew McDermott

centrica

Cadent

Cadent Gas

Kelly Manders

MIRA

Horiba MIRA Declan Allen Sean Crespin

JCE

JCB

Tom Reamish

Tim Burnhope

Neil Waite Andrea Davidson ShitalShirsat Rohekar

HS₂

1 Intelligent Energy

Intelligent Energy

Dennis Hayter

(•) ITM POWER

ITM Motive

Duncan Yellen

national

National Express

Richard Ball

David Bradford

cenex

Cenex Keith Budden

Centrica Chris Wright William Mezzullo



Chris O'Connor

Enfinium Nick Minnitt





partners



Rebecca Rosling















Midlands Engine

Jacob Vivian

Roger Mendonca

Maria Brucoli









Toyota

Jon Hunt



Uniper

Thomas Haslam Jon Flitney Luke Bannar-Martin











Regional Hydrogen Strategy





Midlands USPs:

- Transport
- Heating
- Manufacturing



































Key Questions for the Region (1)



What applications do we want to use hydrogen for in the Midlands?

- -Heating; CHP replacement; industrial fuel switching
- -HGVs; buses; rail; aviation?
- -Agriculture and construction (vehicles, mobile generators)
- -Energy storage

-How much hydrogen do we need (and by when)?









Key Questions for the Region (2)

What sources of hydrogen will "supply" the Midlands?

- -Renewable energy and electrolysis (in/out of region)
- -NH3 sources (e.g. NW and internationally) and transportation. NH3 cracking
- -Pipeline/blending
- -Production from oil (with CCUS?) and imported to region
- -Produced from "new" nuclear in or out of the region

What hydrogen storage options are there?

-salt caverns? E.g. Cheshire; sandstone; as ammonia; pressurised tanks

What facilities is it useful to have in the region? R&D, test

facilities? Demonstration facilities for industry; automotive test facilities; agriculture demonstration; construction demonstration









HyDEX: Demonstrators

Our demonstrator facilities can offer:

- Visits by external parties with interests in hydrogen
- Opportunity to consult with our experts who developed the sites
- Demonstration of different parts of the sector
- Testing and validation

Warwick

- Support CPD
- We are open for business (....and the public and the third sector)!!



HyDEX: Demonstrators - Birmingham











HyDEX: Demonstrators – Keele





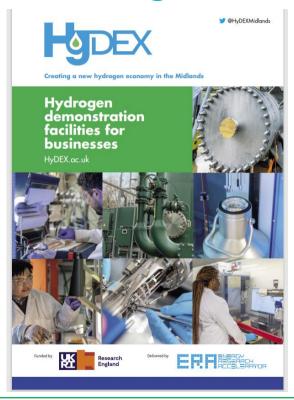






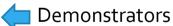
Accessing Demonstrators





- Opportunities to tour and engage with our academics and partners
- Contact details for each demonstrator





Business Support











Upcoming plans:



Policy

- Develop a series of targeted communications for LAs (benefits of hydrogen and steps they can take to make the most of hydrogen)
- With selected LAs develop bespoke activity eg workshops
- Developing a business case for hydrogen rail in the region
- Develop a Agriculture/construction demonstrator
- Make the Midlands the centre for green hydrogen production methods
- Hydrogen valley proposal
- Major research centre proposal
- Educational Programme









Get involved

- HyDEX and EBRI event: <u>The future of Low Carbon Hydrogen in</u> the <u>Midlands</u> 27 March at Aston Conference centre
- Hydrogen Valley Cooperation Workshop, 28 March
- Hydrogen in Caverns: 29 March, Geological Society, London
- Germany and Groningen visit, w/c 24th April
- Hydrogen for Agriculture and Construction event May at JCB.
- EU Policy Event in Brussels (Nov 2023)













Meet the Team



Sarah Gomes Skills Development Officer



Anu Khandelwal



Nick King

Marketing and Communications

Manager



Katherine Mycock
Business Engagement and Impact
Officer



Ben PengInternational Partnerships and
Knowledge Exchange Manager



Suzanne Robey Project Manager



Thank you

www.hydex.ac.uk











