



Bu proje Avrupa Birliği ve Türkiye Cumhuriyeti tarafından finanse edilmektedir
This project is co-funded by the European Union and the Republic of Türkiye



International Brokerage Event on Clean Hydrogen Partnership 2024 Call

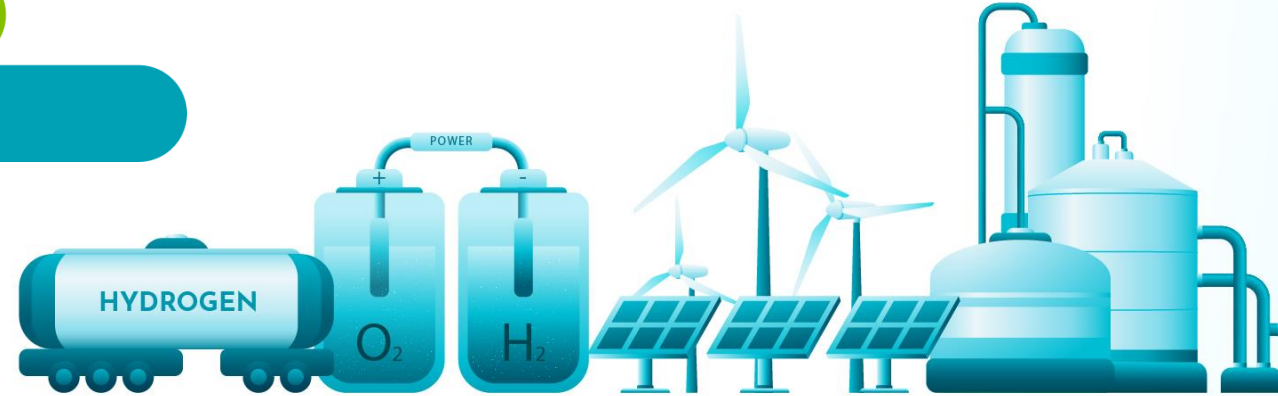


Online

Presenter Full Name: Dr William Nock

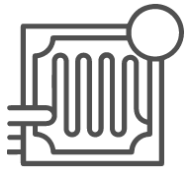
Organization: Bramble Energy

E-mail: w.nock@brambleenergy.com



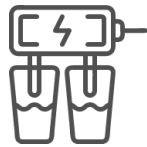
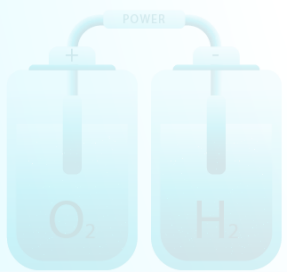


Bramble is an SME in the UK. We are a **disruptive electrochemical technology provider** that leverages the **global manufacturing maturity, materials and techniques from the printed circuit board (PCB) industry**.



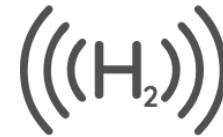
Fuel cells

Bramble is commercialising printed circuit board fuel cells (PCBFC™); through air-cooled and liquid-cooled platforms.



Electrolysers

Bramble is developing an anion exchange membrane (AEM) electrolyser utilising PCB platform, the PCBEL™.



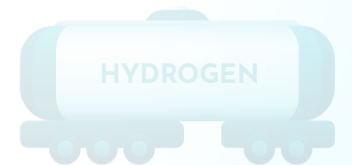
Sensors

PCB-Sense™ offers a unique hydrogen detection method adaptable for a broad range of use cases.



Redox flow batteries

PCBRFB™ has been demonstrated at lab-scale, proving the feasibility of the technology and the adaptability of the PCB-X™ platform.



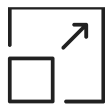
Bramble Energy

Bramble's **fuel cell** and **electrolysis** technology, is a **low-cost, scalable** solution that can be manufactured in PCB factories across the globe.

Using printed circuit board (PCB) materials and manufacturing techniques, the fuel cells are designed for each unique application. Rapid and scalable processes result in **customised fuel cells within weeks**.



Low cost



Scalable



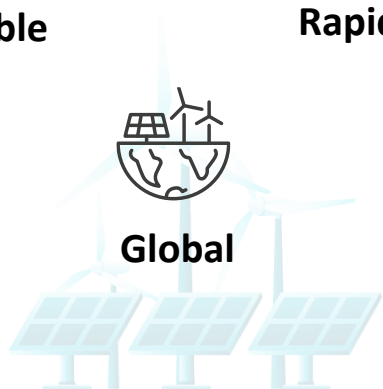
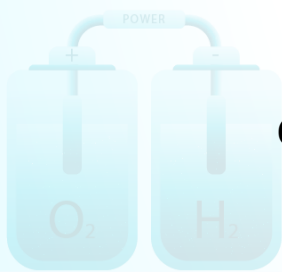
Rapid



Customisable



Global



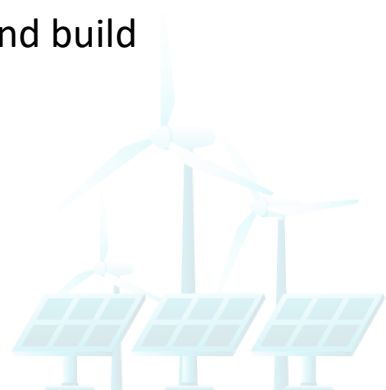
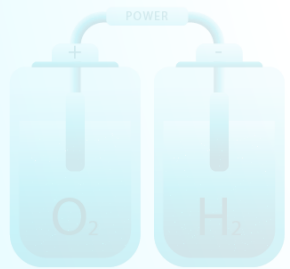
Fuel cell capabilities

Research activities

- Highly adaptable, low-cost fuel cell stacks for PEM fuel cells
- Tunable voltage and current profiles independent of active area and cell count
- Integrating sensors / functions into fuel cell stack
- Balance of plant innovation with composite PCBFC stack

Our technical expertise

- Membrane electrode assembly manufacture
- Fuel cell stack analysis, design, build and testing
- Fuel cell system analysis, design and build
- LT-PEM and HT-PEM technology



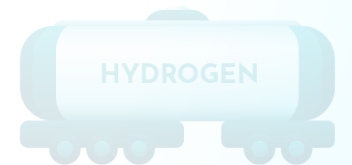
Electrolyser capabilities

Research activities

- Highly adaptable, low-cost AEM electrolyser stacks
- Integrating sensors / functions into electrolyser stack
- Scale-up of electrolyser stacks
- Characterisation of electrolyser materials

Our technical expertise

- Membrane electrode assembly manufacture
- Electrolyser stack analysis, design, build and testing
- AEM Electrolyser stack analysis, design, build and testing

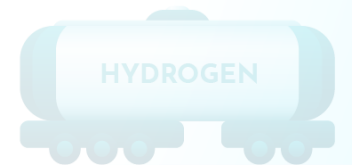
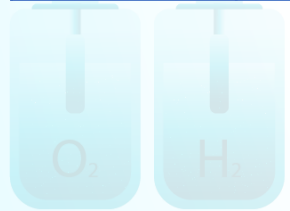




Clean Hydrogen Partnership 2024 Call

Bramble is interested in the following topics:

Call title	
TC1-02	Advanced anion exchange membrane electrolyzers for low-cost hydrogen production for high power range applications
TC3-01	Optimising BoP components, architectures and operation strategies for improved PEMFC system performance and lifetime
TC3-02	Scaling up Balance of Plant components for efficient high power heavy duty applications
TC3-04	Demonstration of hydrogen-powered inland shipping or short sea shipping
TC4-02	Portable fuel cells for backup power during natural disasters to power critical infrastructure





Presenter Contact Details:

Full Name: Dr. William Nock / Dr. Cuneyt Karakaya

Organization and Department: Bramble Energy

Country: UK

Tel/E-mail/Web: w.nock@brambleenergy.com / c.karakaya@brambleenergy.com

