

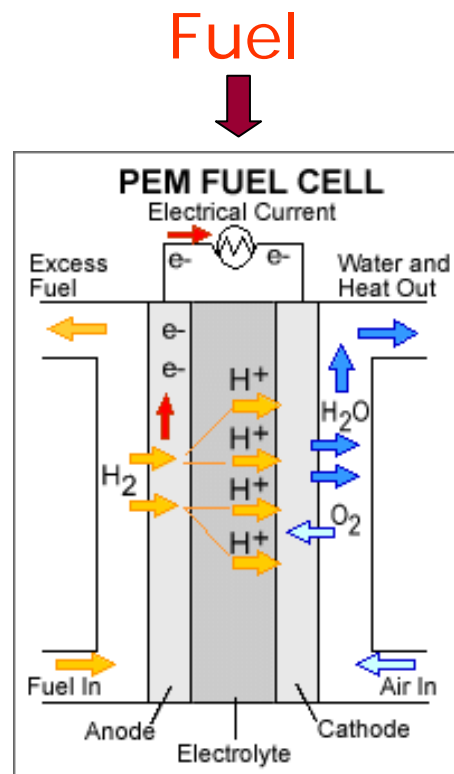
ACAL Energy Ltd

The Story So Far

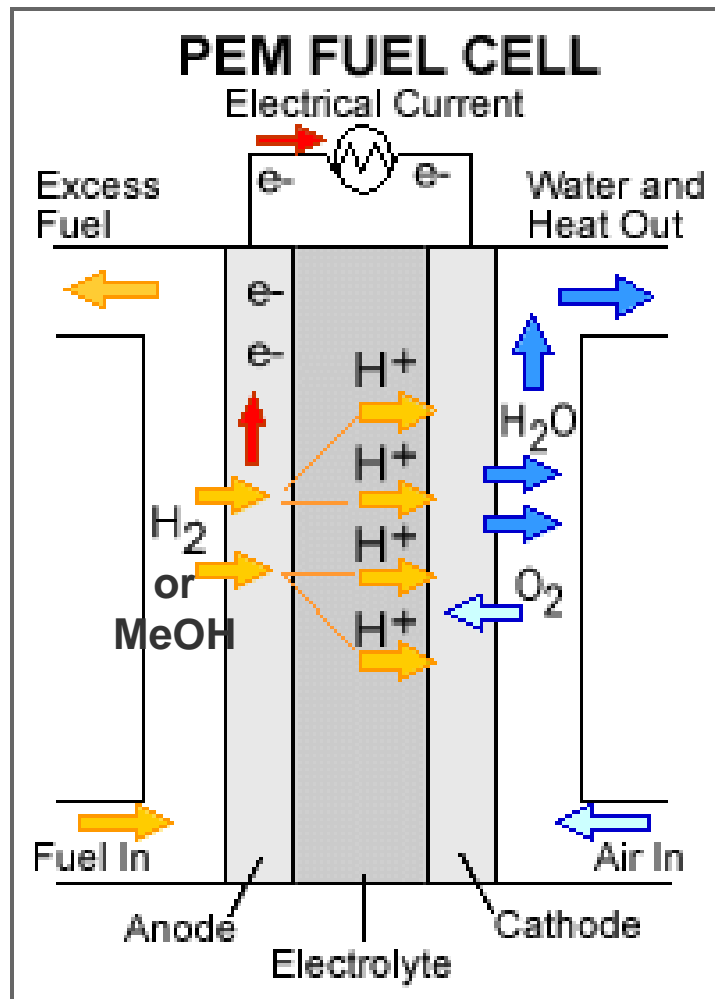
Who are we?

- Developing Fuel Cell Cathode System
- Founded Aug 2004
- Located – The Heath, Runcorn
- Completing Series “A” Finance Round

Applications – PEM Fuel Cells

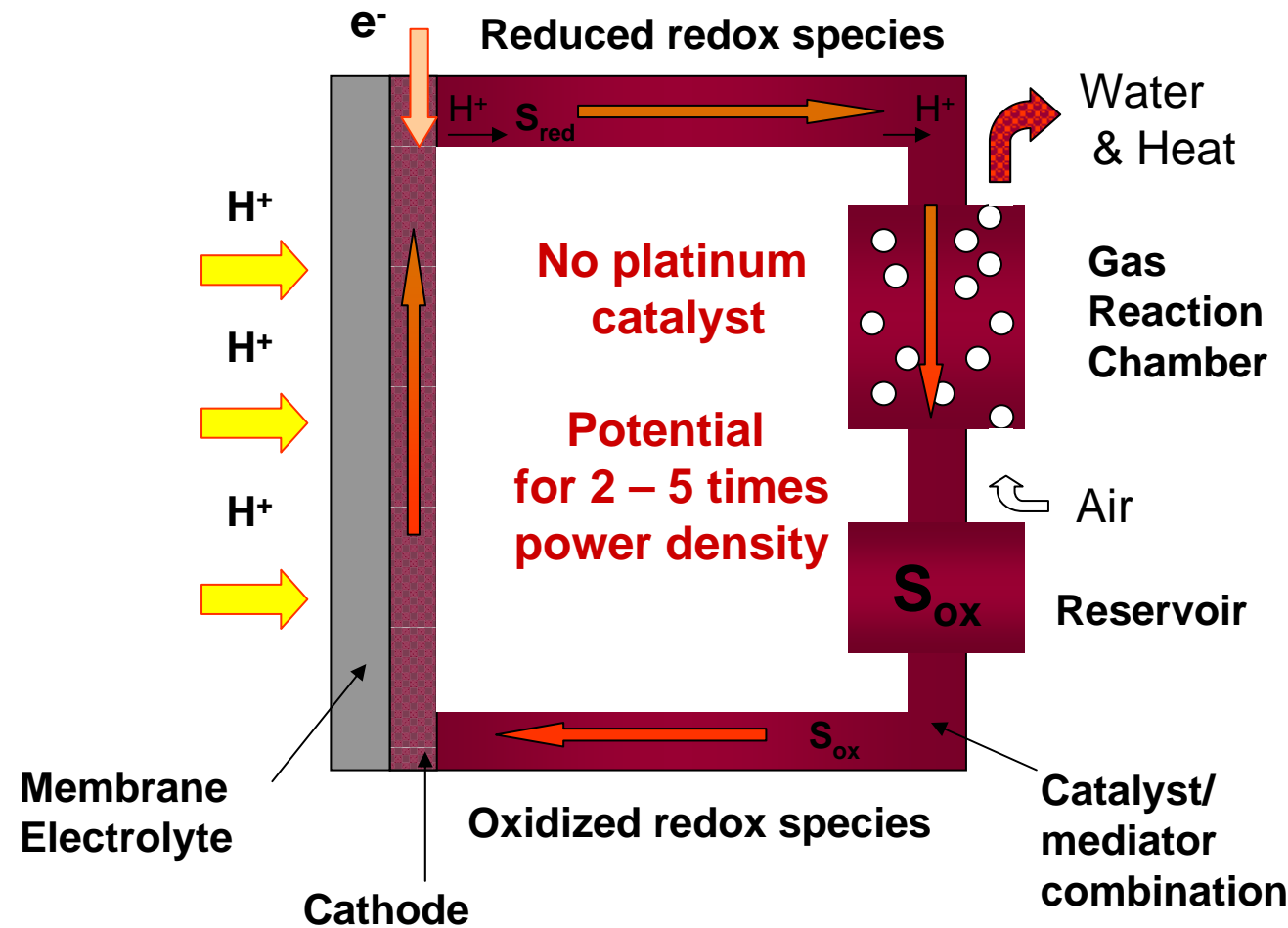


Electricity



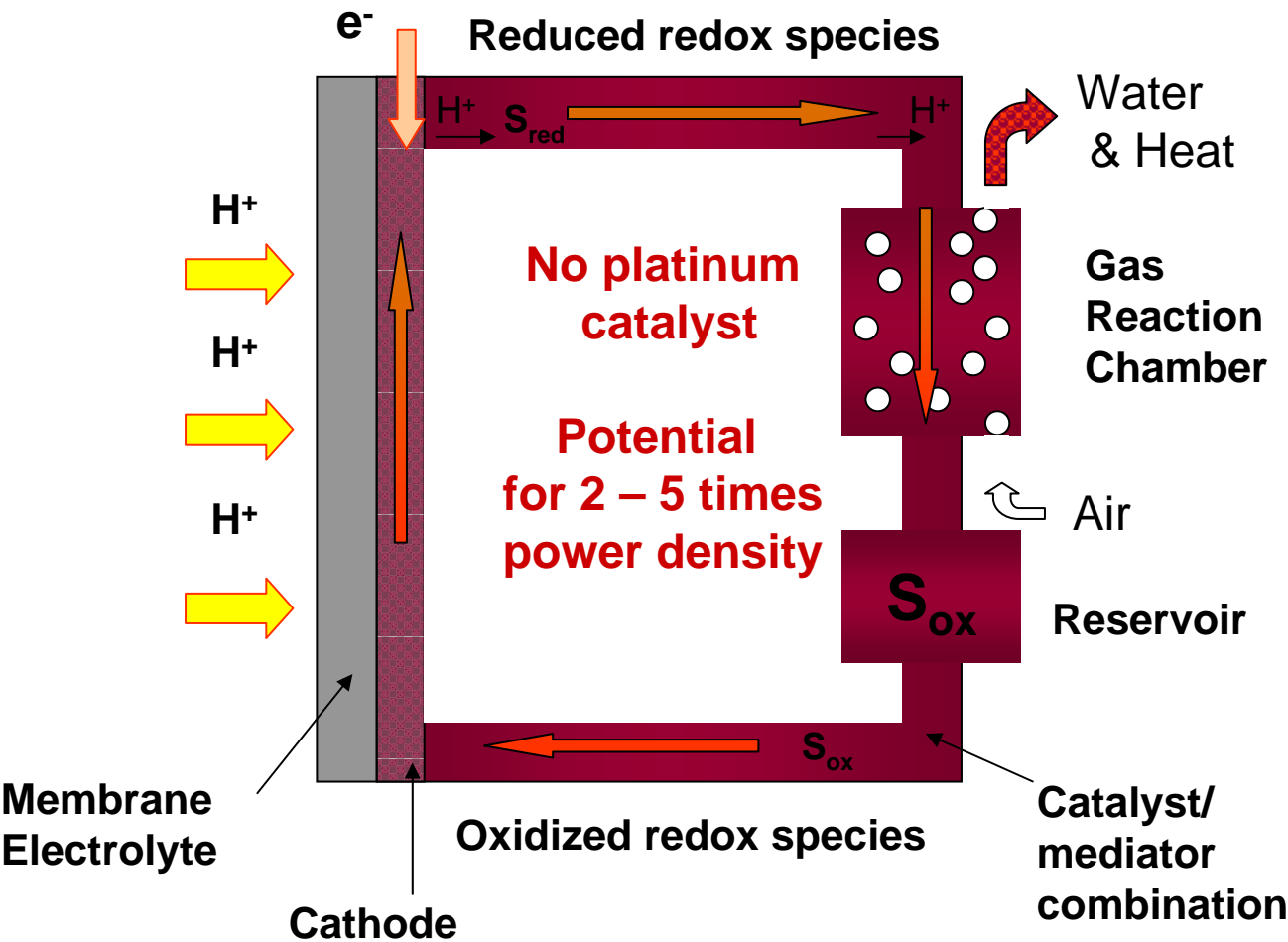
Standard Polymer
Electrolyte Membrane
Fuel Cell for hydrogen
or methanol fuel

ACAL Cathode Side of Redox Cell

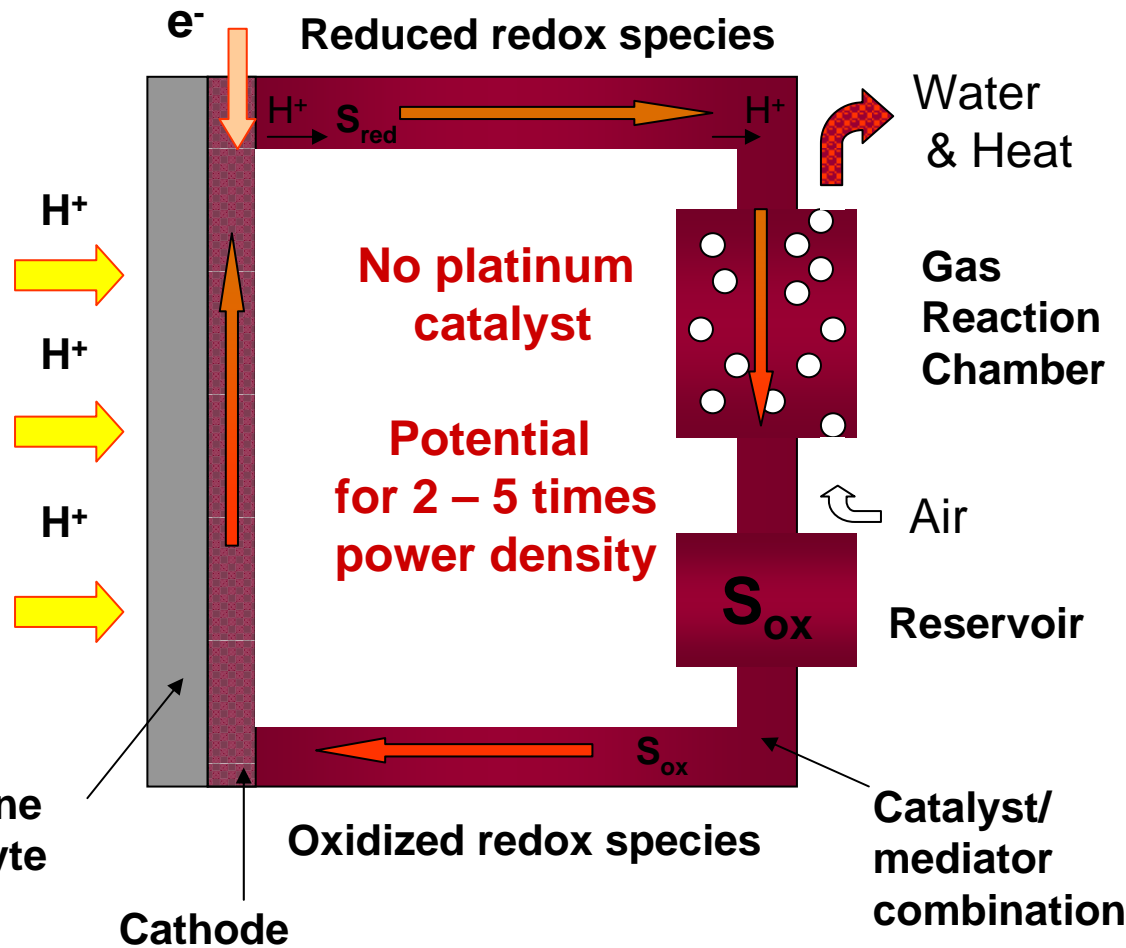


ACAL Cathode Side of Redox Cell

"The only route with potential for step change cost reduction"
Major fuel cell supplier



ACAL Cathode Side of Redox Cell



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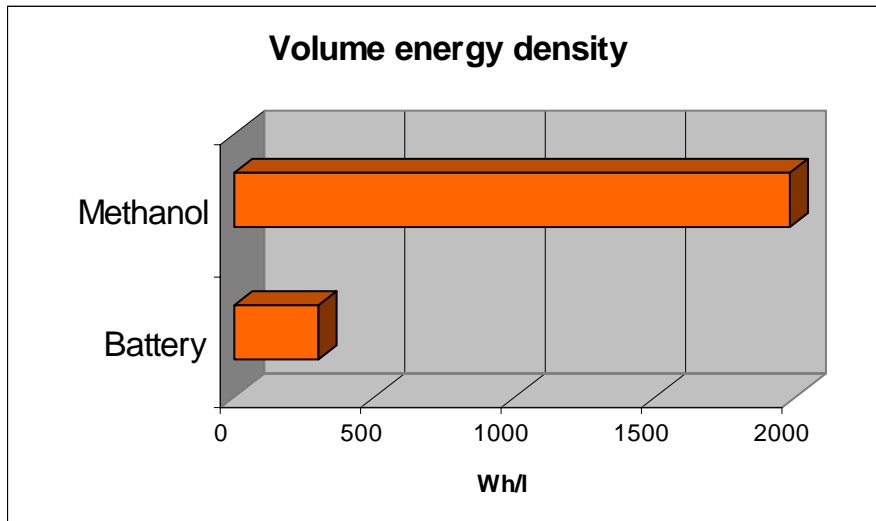
"I've been saying for years that an innovation in the cathode is needed"

Gary Acres - former Director Johnson Matthey; Chairman European Fuel Cell Group

Fuel cells can increase portable electronics run time but...

Methanol fuel vs. battery

Theoretically: 15 x run time



Too large for portable electronics applications!



Toshiba DMFC powered laptop

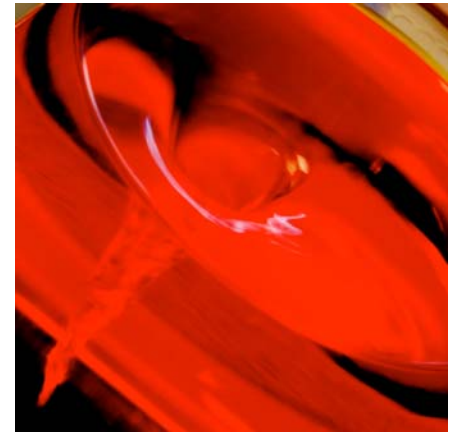
Management Team

- Co-founded by FlowCath™ inventor Dr Andrew Creeth
 - 15 years blue chip R&D experience,
 - Scientist, Project Manager & Programme Manager
- Co-founder Amanda Lyne
 - Blue chip commercial experience
 - Early stage fund raising and technology start up
- Non-executive director -Dan Dajie
 - Founder - AIM listed Polyfuel Plc.
 - Formerly Polyfuel's Vice President of Engineering.
 - Based in the US
 - Expert in fuel cell industry
 - Early stage technology development experience.



Company History

- Founded August 2004
- Funding to date - £520k
 - Seed Capital Funding -
 - Rising Stars (£420k)
 - Grant Funding
 - The Carbon Trust incubator programme & DTI (£100k)



Scientific Advisory Board

- **Prof Frank Walsh**

- Southampton, leading electrochemical engineer, strong industry links, fuel cell expertise



- **Prof Mike Turner**

- Manchester, materials expertise, catalysts, mediators



- **Dr Ziya Haq**

- Former Head of Laundry Care Research Unilever
- Industry experience, consultant for electronics industry, polymer chemist

Route to Progress

- Fuel Cell Construction



- MeOH Fuel Cell specialists



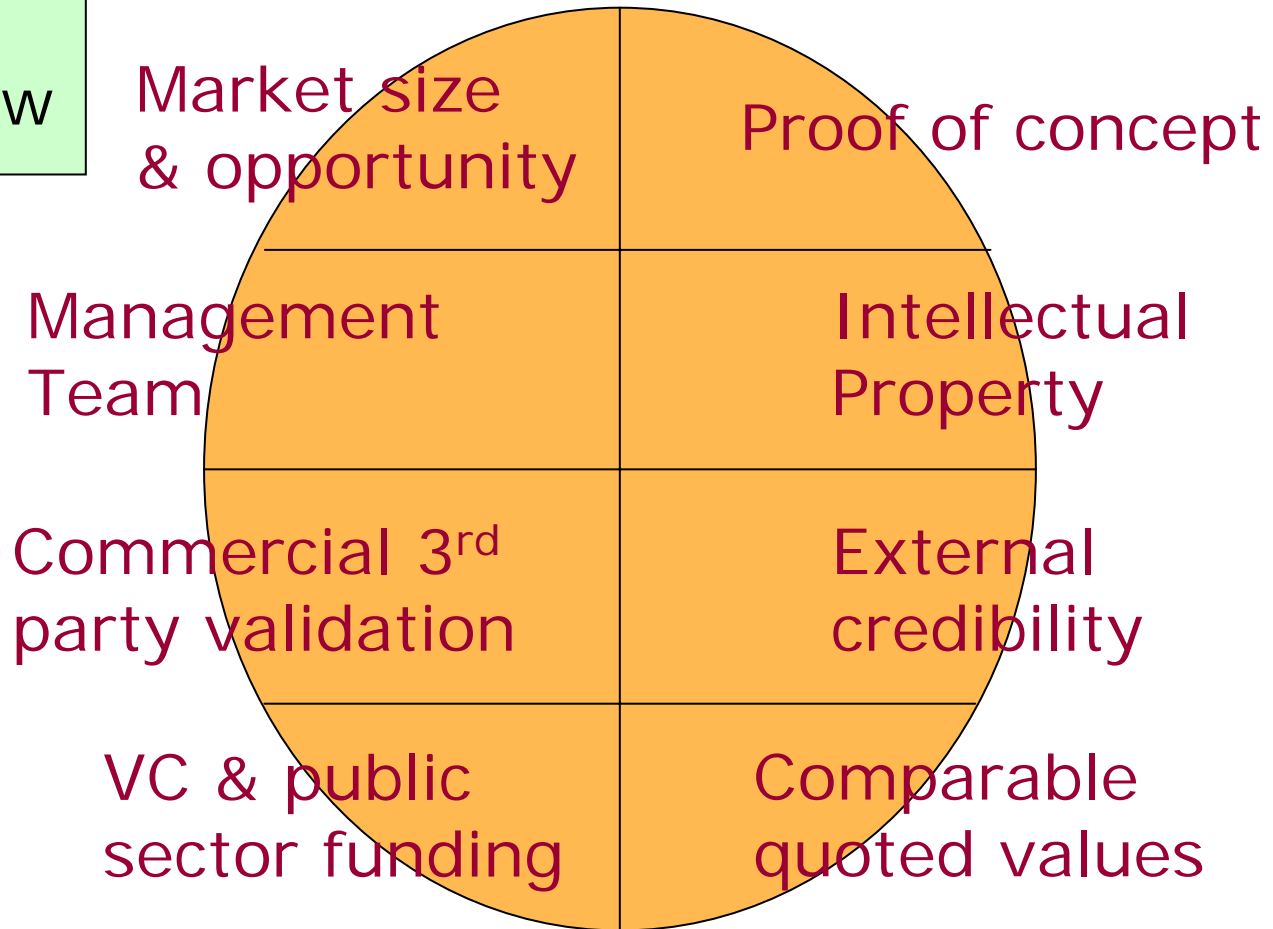
- Catalyst Synthesis



Status – Refinancing

- Fuel Cells constructed for methanol and hydrogen fuels.
- Power densities, proof of principle for high performance
- 5 Patent applications filed
- 4 Employees, NED, SAB
- Raised Grant Funding
- Clear market definition – Laptop

Venture
Capital View



The Future

- Developing the chemistry, fuel cell components and constructing prototype
- Growing team
Recruiting board, including CEO
- Developing relationships with customers – seeking profitable R&D collaborations
- Developing relationships with suppliers