

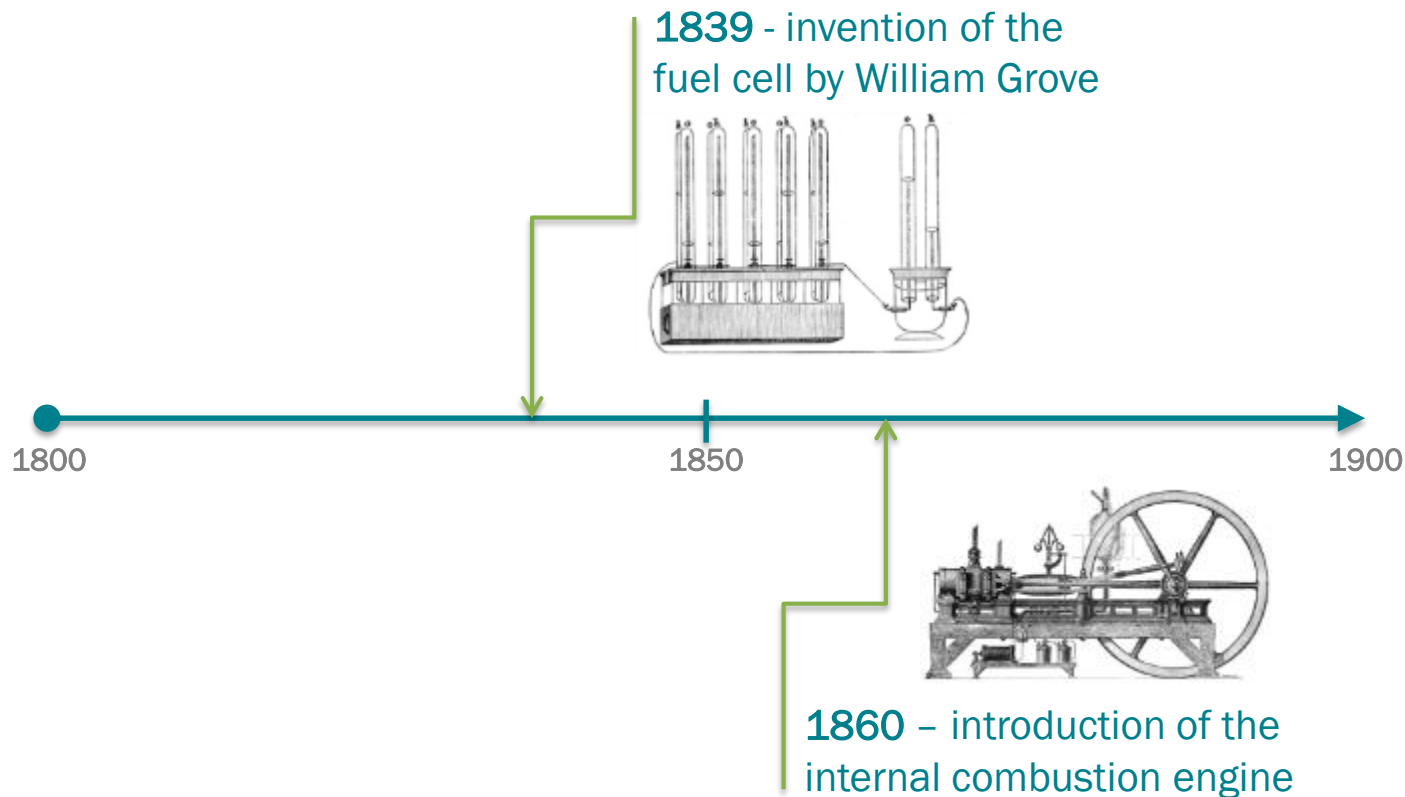


Fuel Cells for Mobility

A Hydrogen Renaissance is Happening

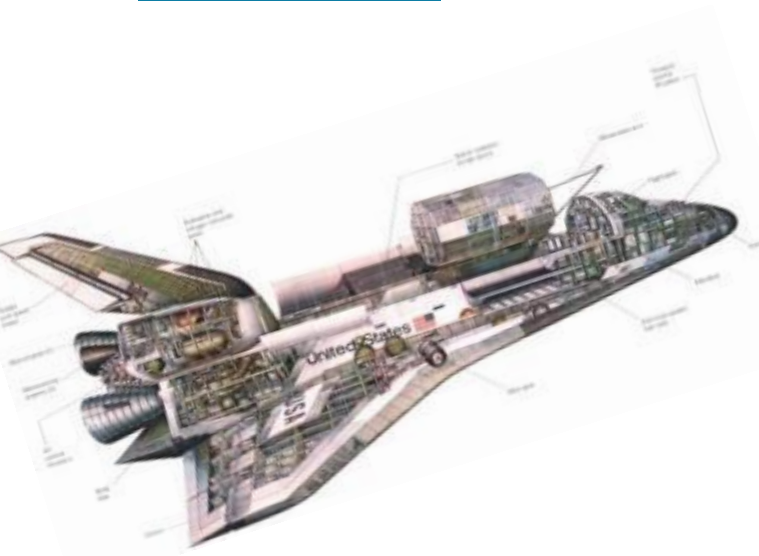
Rob Campbell
Ballard Chief Commercial Officer
Smart Mobility Summit 2019
Tel Aviv
10/28/2019

Fuel Cell Technology Pre-dates Internal Combustion Engines



Yet, internal combustion engines have been the dominate form of propulsion for the last century and this century so far.

Early Motive Fuel Cell Applications



Fuel cell technology is ready for scale: proven, safe and reliable



All current market drivers for electrification are fueling unprecedented fuel cell activity for mobility.

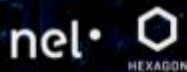


BALLARD®



H₂BUS

ZERO EMISSION MOBILITY
CLEANING UP THE WORLD



BALLARD



Everfuel



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Hydrogen Council formed in 2017 to bring attention to the industry



IEA Report: The Future of Hydrogen

- **The time is right** to tap into hydrogen's potential to play a key role in a clean, secure and affordable energy future.
- Hydrogen can help tackle various **critical energy challenges**.
- Hydrogen is versatile.
- **Hydrogen can enable renewables** to provide an even greater contribution
- There have been false starts for hydrogen in the past; this time could be different.
- Hydrogen can be used much more widely
- However, **clean, widespread use of hydrogen in global energy transitions faces several challenges**. (Currently mostly carbon based, infrastructure needed, ongoing regulatory effort...)



Major Investments and Partnerships Now Accelerating



Hydrogen is the
most abundant
element in the
universe.



Hydrogen is the energy carrier that enables energy sector coupling for a sustainable future.

Renewable hydrogen
and fuel cell
technology will
deliver affordable
zero emission
mobility.

The background of the slide features a hand holding a globe of the Earth. Above the globe, there are white line-drawn sketches of industrial buildings with smokestacks and houses. To the right of the globe, there are sketches of wind turbines. The entire scene is set against a bright blue sky with white clouds and a lush green field of grass at the bottom. The Ballard logo is in the top left corner.

BALLARD®

At Ballard,
we deliver fuel cell
power for a
sustainable planet.