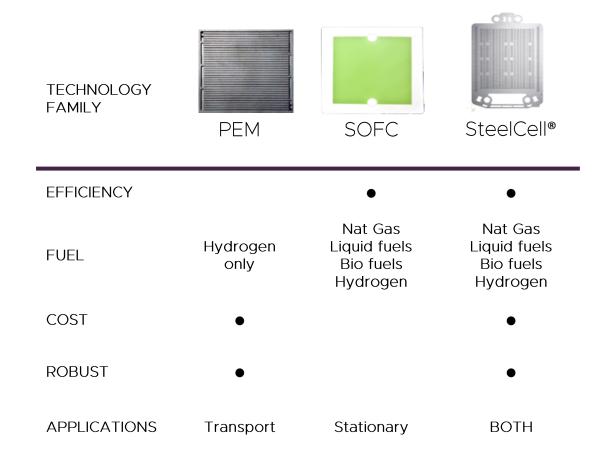




## SteelCell® highly differentiated for power generation

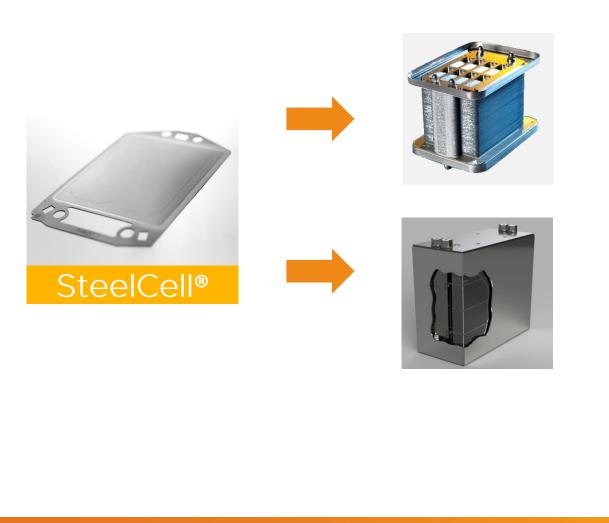
#### SteelCell® solid oxide fuel cell

- Highly efficient, c.60%
- Fuel flexible Nat Gas, H2 ready, blends
- Steel backbone, robust and costcompetitive
- Stationary and transport applications
- Uses conventional high volume manufacturing equipment from solar PV and chip industry





# Global Scale through technology licensing



















**BOSCH** 

30-100s kW EV bus/truck Power system



100s kW-MW's Utility scale







# Global stimulus for Green recovery post Covid-19



America's Democratic President Elect, Joe Biden, wants to spend \$2trn de-carbonising America's economy.



UK unveiled its £12bn Ten
Point Plan to support new
green jobs and promote
green energy sources for zero
carbon emissions by 2050



Germany has announced €9bn in stimulus for hydrogen technologies, and links fuel cells as a path to de-carbonisation.



Aiming to be carbon neutral by 2060. China's 14th Five Year Plan (2021-25) set to persist with long-term ambition of developing the green economy.



EU announced funding of €550bn to green projects to 2027 and a separate €750bn Covid recovery fund. All EU budgets must "do no harm" to its goal to become climate neutral by 2050.



Korea's Green New Deal has committed KRW73.4 trillion (£46 billion) of green funding to drive economic recovery. Targeting 15GW of FC power generation by 2040, with 2.1GW for stationary FCs in buildings.



Japan first country to adopt a Hydrogen Strategy and leads globally in the deployment of FCs.



## Investing now in clean energy technology to address climate change

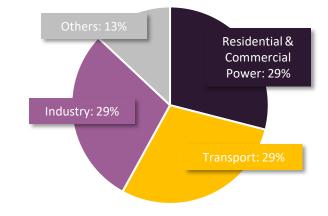
SOFC

Ceres heritage, 1kW to 5-20kW. Potential for 150-500kW. Future utility scale, where incentives exist.



#### **Global demand for energy**

By sector





Ceres 30kW today, increasing to 150kW+ for trucks, rail.
Potential for H2 and e-fuels in shipping or aviation.



- Committed initial £5m to 2021 to develop SOEC technology for hydrogen
- Investing today so well-positioned to capitalise on future opportunities



Ceres' potential SOEC application in future large-scale demand for hydrogen in industrial uses.



## Licensing Business model and partnership progression



1. Joint product development

Engineering services







HONDA





2. Licence: system/ manufacturing

Fees for tech transfer











3. Royalties from products sold

Royalties per kW





## Progress with key commercial partnerships



- First partner to manufacture Ceres' core cell technology under licence
- Now scaling up to 200MW production by 2024 across multiple sites in Germany





- 30kW range extender for electric buses progressing to field trials
- Establishment of the JV in Shandong province now likely to be H1 2021





- Ambition to supply efficient fuel cells to meet Korean government renewable energy plan
- Good progress on initial CHP development deal
- Recent manufacturing licence signed for an initial 50MW facility by 2024





- First units operating over one year; 90% efficient CHP for commercial buildings delivers energy savings and a lower carbon footprint
- Growing specialist team to support long-term deployment





## Bosch scales up for mass manufacture of SOFC stacks and systems

- Ceres and Bosch now prepare for mass production across multiple sites in Germany
- Bosch plans to scale production to 200MW in 2024, will invest 'hundreds of millions of euros by 2024'
- Total deal value of up to £23 million from 2021 to 2023, of which c.£6m is conditional on KPIs
- Stacks will satisfy demand for decentralised power plants in cities, factories, trade and commerce, data centres and electric vehicle charging infrastructure
- Bosch believes the market to be worth €20 billion by 2030
- Builds upon the initial agreement signed in August 2018 to develop 5kW manufacturing capability in Germany







# Weichai: collaboration progressing despite Covid-19 challenges



- 30kW range extender system for electric buses in field trials
- JV to provide a staged path to high volume manufacturing for buses, commercial vehicles and other markets in China. Covid-19 delays pushing timing to H1 2021
- Weichai exercised non-dilution rights, investing a further £11m to maintain its equity stake at 20%

PHOTOS: Copyright Weichai



## Doosan: deepening our relationship with the market leader

- Ceres and Doosan sign strategic collaboration and licence agreements
- Doosan aiming to establish an initial manufacturing capacity of 50MW by 2024
- Total deal value of up to £43 million of which £7 million contingent on meeting KPIs over next three years
- Additional contracted royalty streams to follow mass market launch of 5kW SteelCell<sup>®</sup> stacks in 2024
- Builds upon the initial two-year collaboration and licensing agreement signed in July 2019, worth £8 million to Ceres





## AVL List partnership accelerates Ceres systems business

- Strategic System Collaboration with Austrian company AVL List, a globally recognized consulting engineering firm employing 11,500 people in 26 countries, generating around €2 billion in turnover
- Combination of respective IP portfolios will create a significantly stronger global IP position
- Creates a systems engineering services practice to offer customers state-of-the-art SOFC systems designs
- Ceres and AVL will collaborate on customer acquisition in SOFC technology in new applications and regions







## Scaling the SteelCell® ecosystem

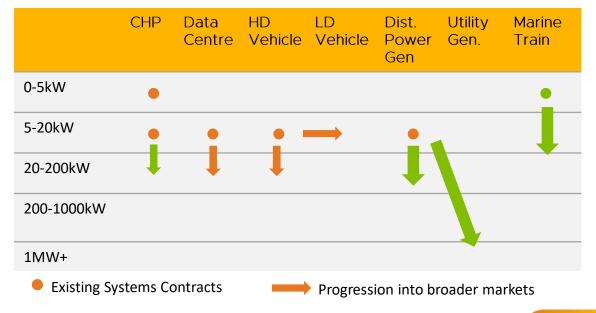
#### **STACK**

Target global manufacturing partners to supply cells and stacks to system OEMs in regions of greatest demand



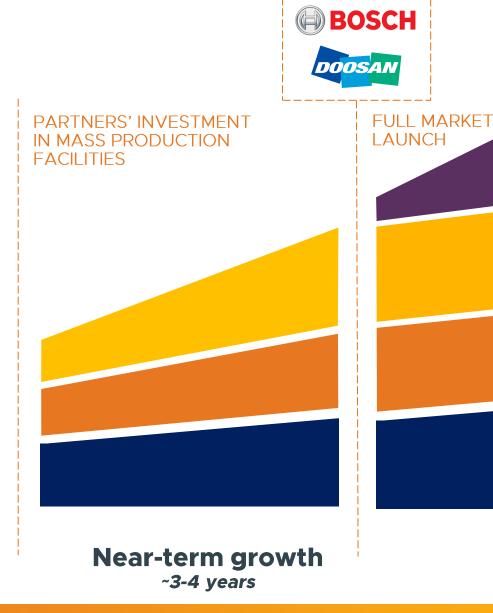
#### **SYSTEM**

Moving into higher power systems and broadening applications in each region (through direct and shared system licensees)





## Revenue evolution



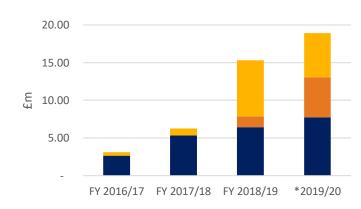
Royalties

Advance licence fees from manufacturers

Supply for customer programmes

**Engineering** services fees

**Future** 



**FY Revenue** 

\*2019/20 12 months ended 30 June 2020



## Ceres in numbers in 2020

~3501

UK highly skilled science & engineering employees (+90 during Covid)

~£20m

Revenues, all export (12 months to June '20)

>£100m

Order book and pipeline post Doosan deal October

£88m

Strategic investment Bosch/Weichai in 2020 ~£108m

Cash at 30 June '20

c.£1.8 Bn

Market capitalisation (AIM:CWR)



#### Outlook

#### Market for technologies addressing climate change has never been stronger

- Now have two commercial partners as significant strategic investors in the Company
- Strong momentum with Doosan and Bosch moving to mass production

#### Established as a Leader in Solid Oxide technology

Ceres highly differentiated and becoming the industry standard in SOFC

#### Now investing for growth

- Intend to expand into higher power and other applications
- New engineering partnership in place to access new customers
- R&D on electrolysis (SOEC) applications is now underway

# High-margin clean energy technology licensing business well positioned for growth



