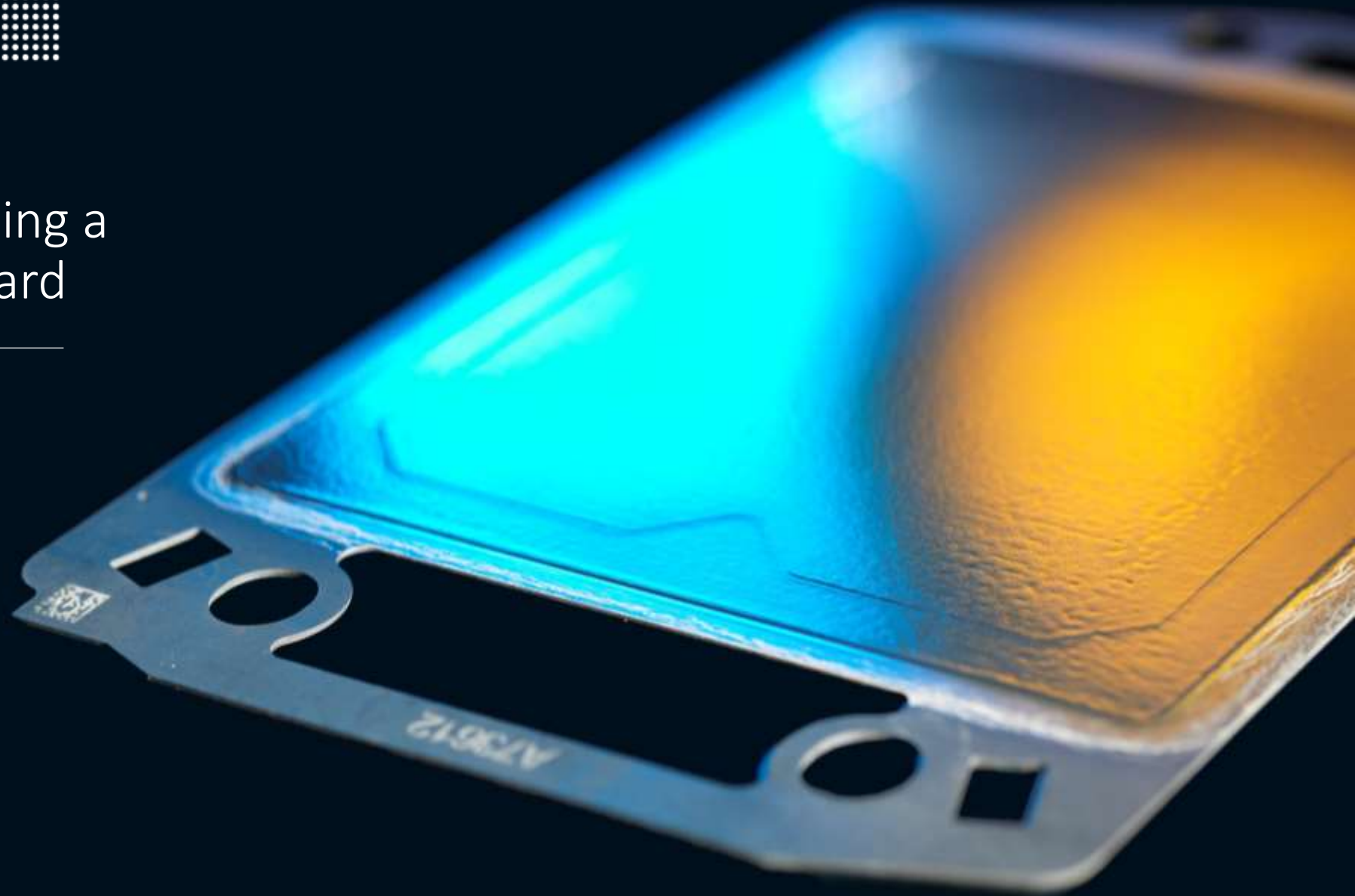




# SteelCell : Establishing a new global standard

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Mark Selby  
Chief Technology Officer  
31<sup>st</sup> January 2019



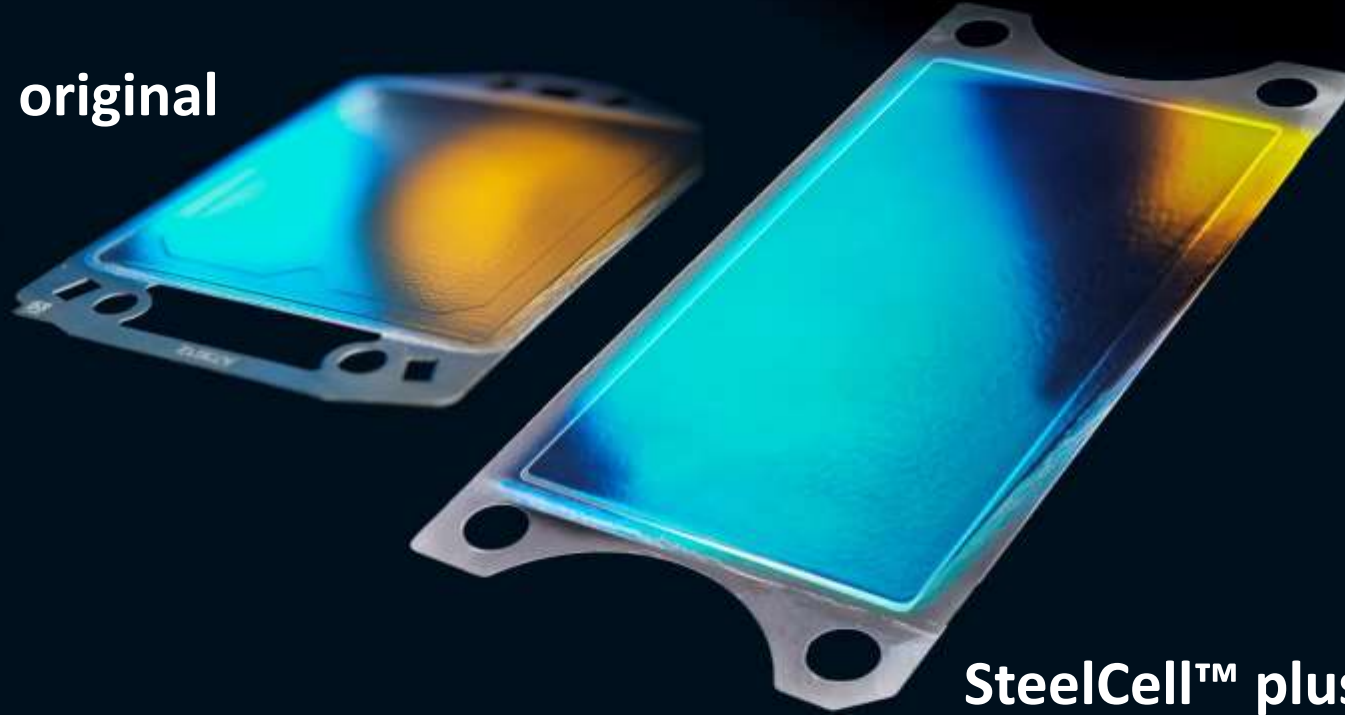
- Unique Fuel Cell Technology
- Development & Manufacturing Company
- Listed on AIM: Market Cap approx. £250m
- 50 patent families
- >200 employees

The background of the slide is a photograph of a modern building at Imperial College London. The building features a prominent glass and steel structure with a grid of beams. The sky is a pale blue with some light clouds. The text "Imperial College London" is visible on the left side of the building's facade.

Imperial College  
London

Increasing demand for increasing power.

SteelCell™ original



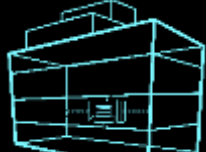

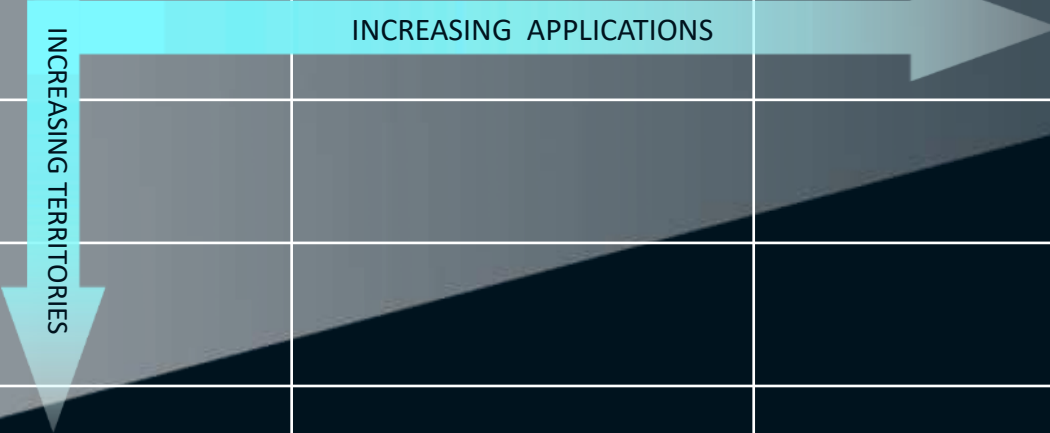


SteelCell™ plus

## Why is the SteelCell™ unique?

- Fuel Cells most efficient way to generate power from any fuel
- Fuel flexible Natural Gas/Syn. Gas from Coal/Bio fuels/Hydrogen
- Affordable and robust Solid Oxide Fuel Cell for mass adoption
  - Made from conventional steel with small amounts of ceramic
- Uses conventional high volume manufacturing equipment from Solar PV industry

# Where can SOFC's be used?

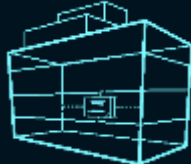



REGION \ APPLICATION	 >10 GW RESIDENTIAL	 >50 GW DATA CENTRE / BACK UP	 >70 GW COMMERCIAL	 >300 GW APU
JAPAN				
KOREA				
EUROPE				
USA & REST of the WORLD				

■ Customers

# Global Multi Billion \$ Opportunity

- Addresses High growth multi \$bn market in transition to post combustion era
- Replaces conventional engine and power generation
- Enabler for EV roll out and supports increased renewable penetration
- Highly scalable business - OEM partner & licensing technology

Possible annual gross margin

APPLICATION	 >70 GW <b>COMMERCIAL</b>	 >300 GW <b>RANGE EXTENDER/ APU</b>	 >100 GW <b>DATA CENTRE / BACK UP</b>	 >10 GW <b>RESIDENTIAL</b>
<b>TOTAL</b>	<b>\$190m</b>	<b>\$370m</b>	<b>\$340m</b>	<b>\$70m</b>

Up to 5% market share at up to \$140 gross margin / kW

Commercial: pro rata from US commercial property demand

Automotive: 20m large vehicles produced p.a.

Data centre market: 2% of Global electricity demand, larger than UK

Residential market: >18m boilers and water heaters sold p.a.

# DEVELOPMENT PARTNERS



CONFIDENTIAL COMMERCIAL  
SCALE PARTNER

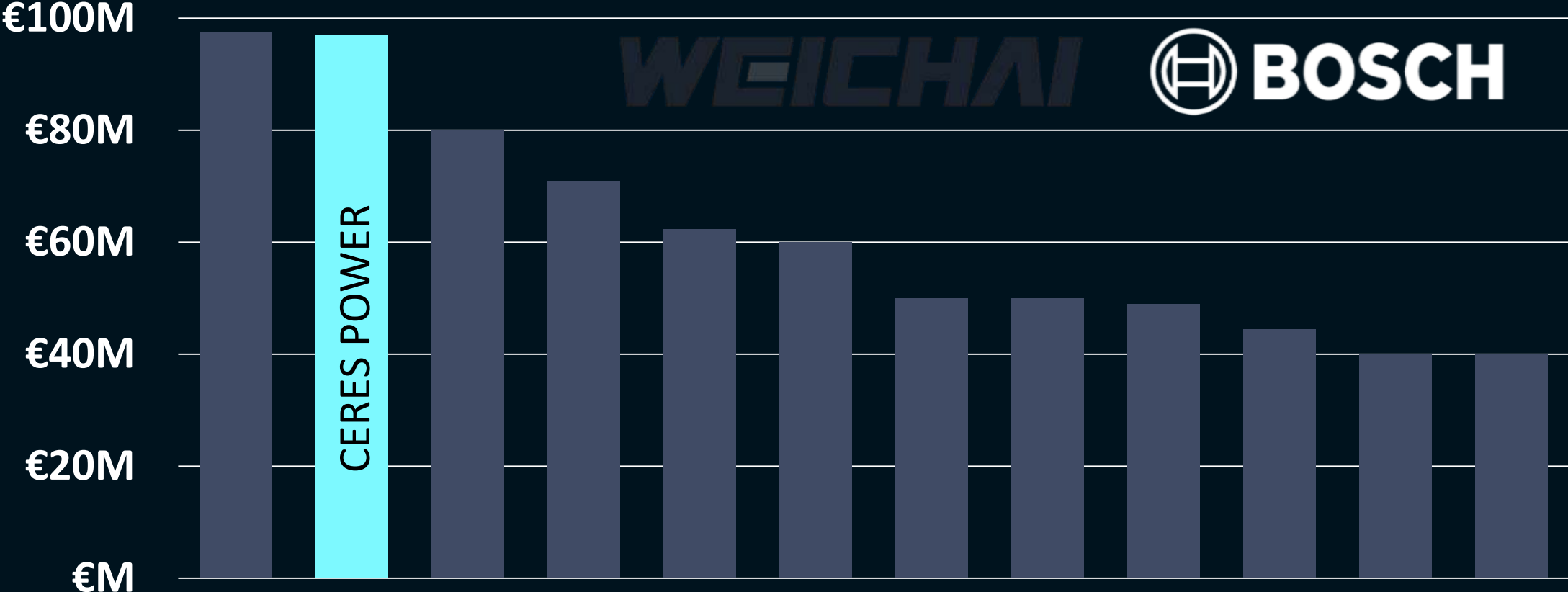


U.S. DEPARTMENT OF  
**ENERGY**



- Manufacturing scale up/ 10 kW power systems for Data centre and commercial
- Manufacturing JV 2020
- Electric Bus and stationary power market
- Electric Vehicle Range Extender
- Commercial Scale CHP
- Data Centre & Commercial Scale
- Stationary power applications

Corporate Investment is now a significant part of the growth story  
 The 12 largest European cleantech venture investments in 2018





# How we work with Partners

- Joint Product Development
  - License and Technology Transfer of System Design
- SteelCell™ stack supply through manufacturing partners



- Product development
- Engineering Services

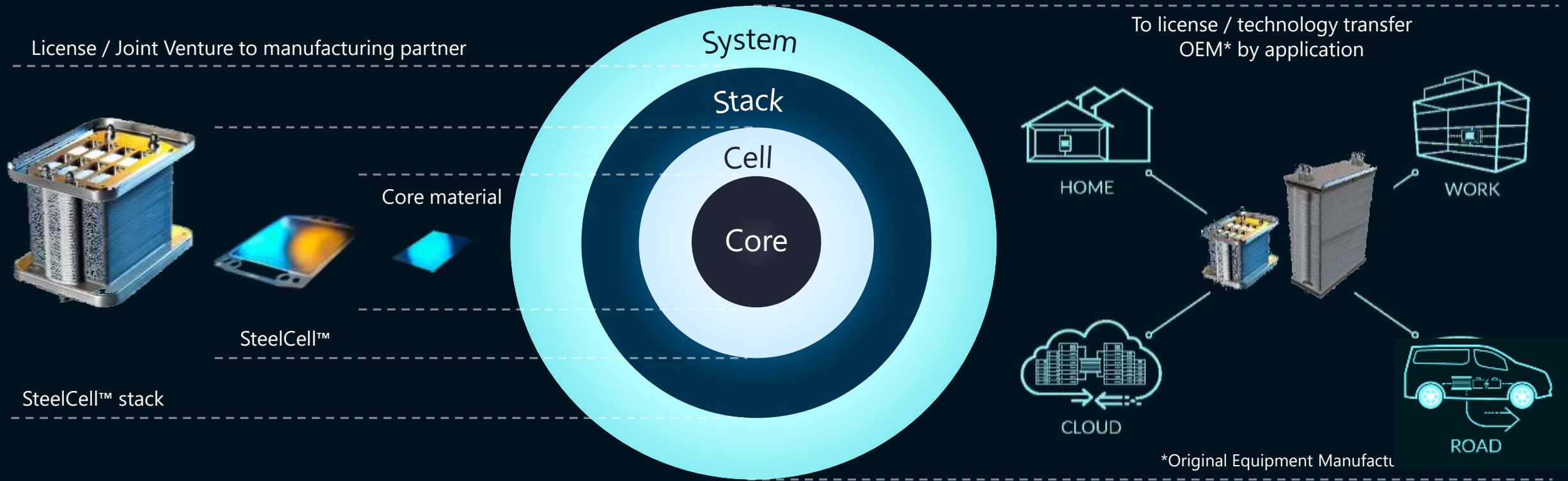


- SteelCell™ Technology Transfer & Licensing

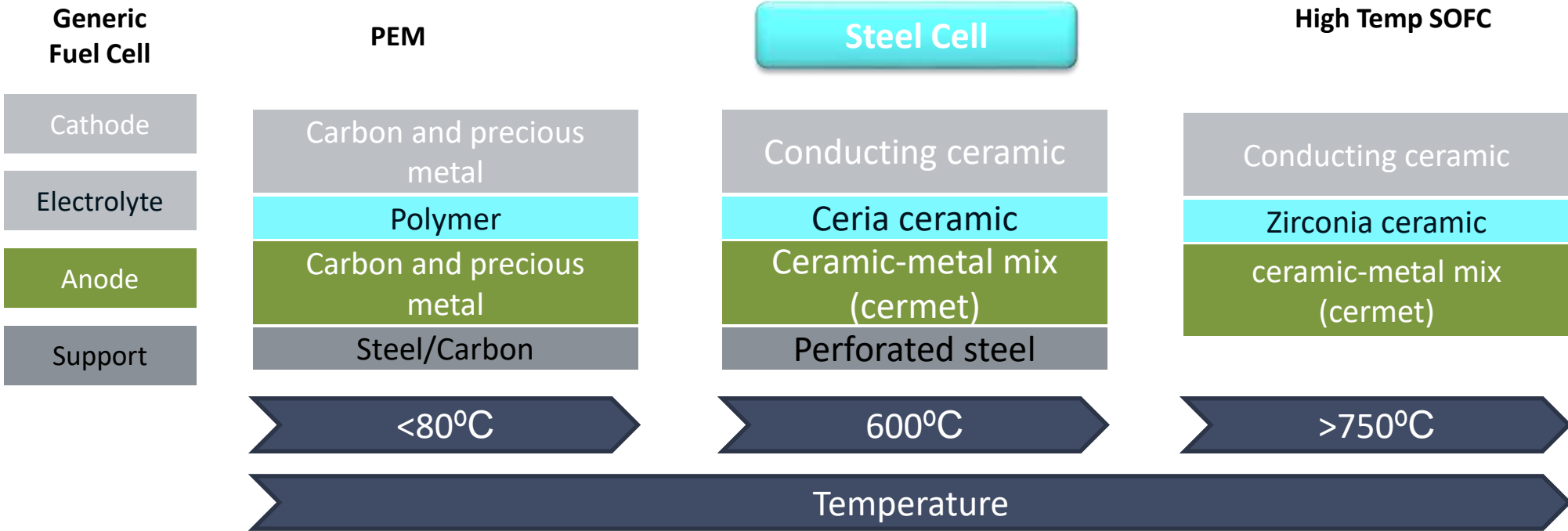


- SteelCell™ Supply
- Manufacturing/partners

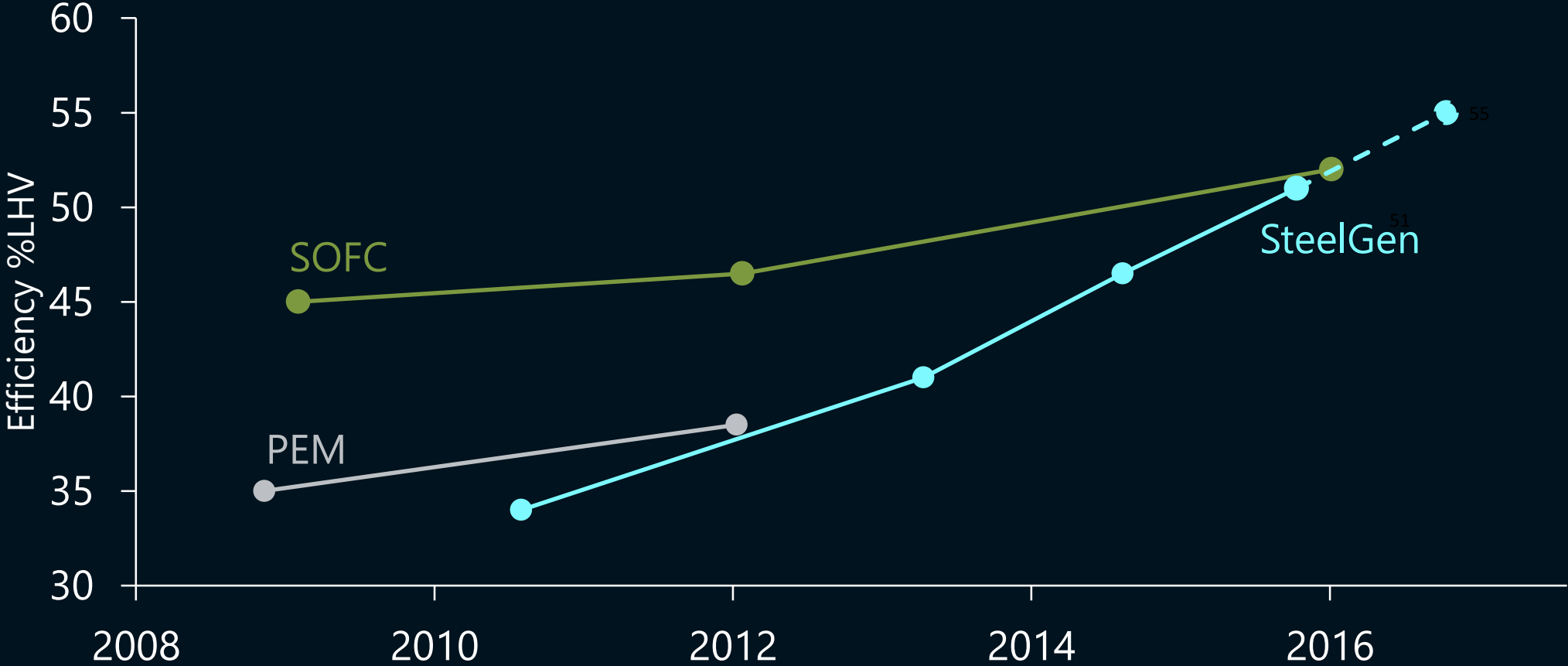
# Licensing strategy – Inserting Technology into World Class OEM's allow Ceres to scale by markets and applications quickly.



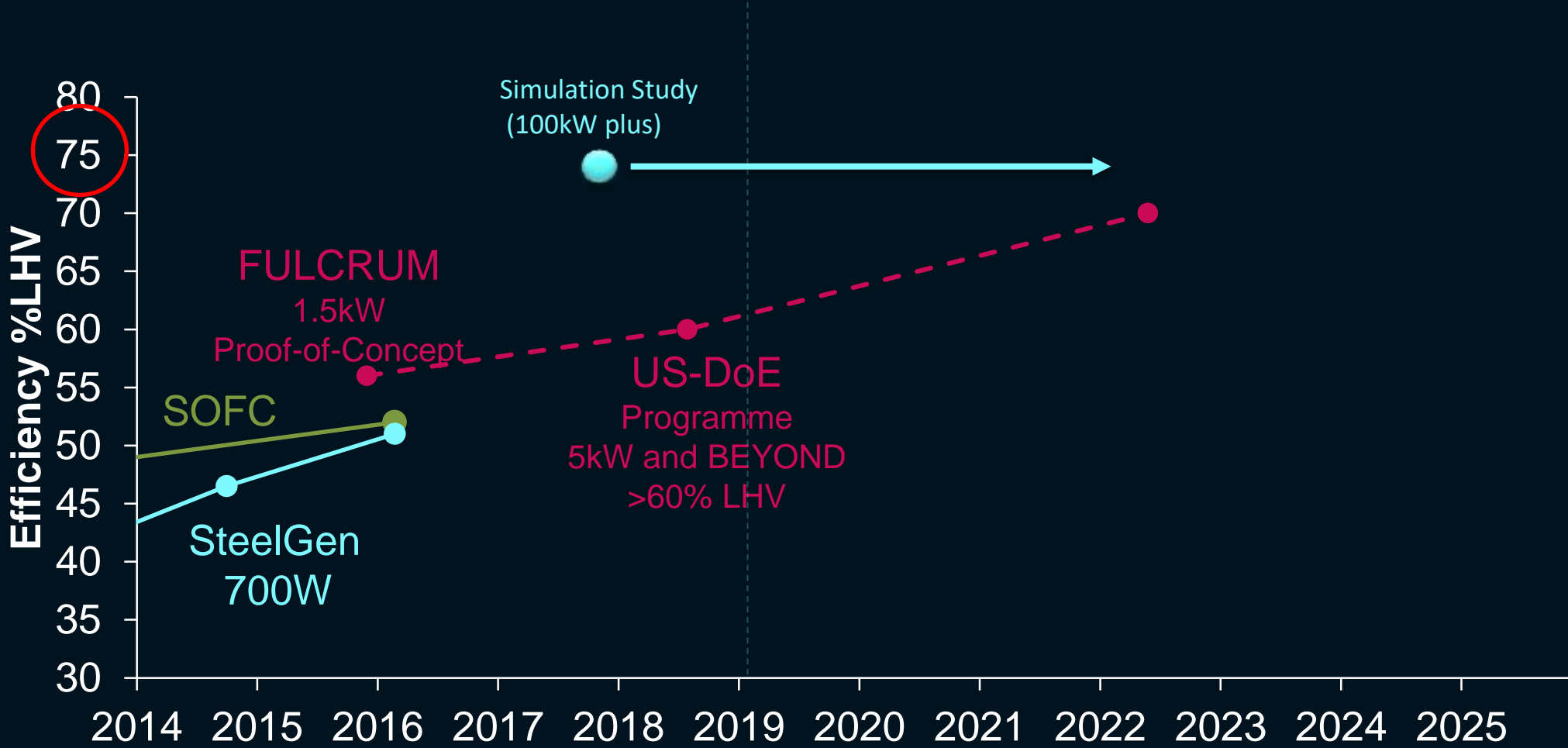
# Steel Cells are a in a sweet spot for performance, cost and robustness



# Fuel Cell Power System - Results



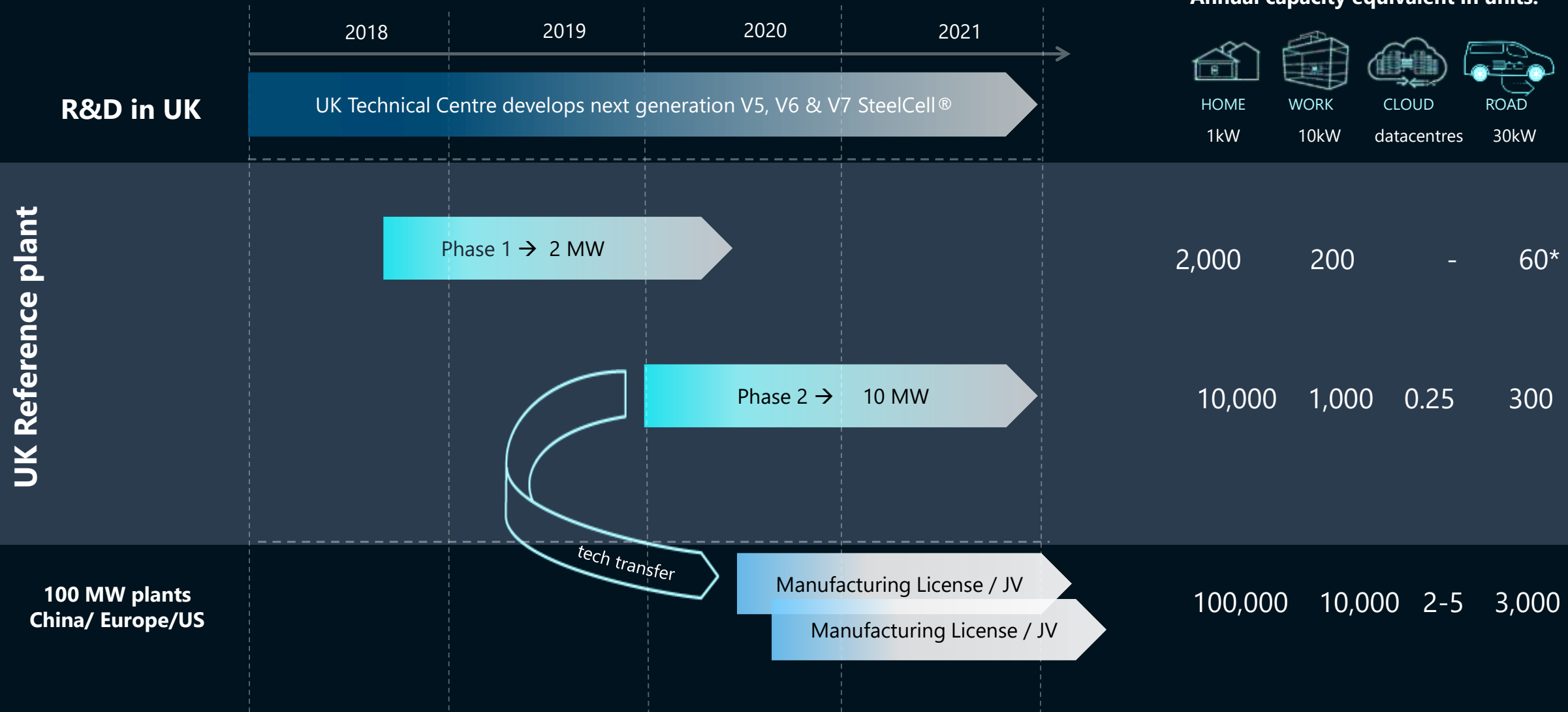
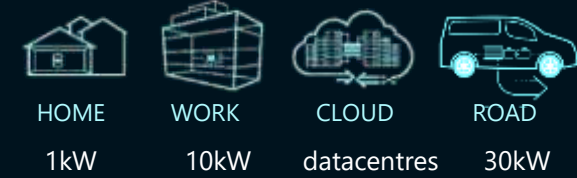
# Fuel Cell Power System – Multi-kW Prime Power



# Manufacturing partnership



Annual capacity equivalent in units:



# NEW MANUFACTURING FACILITY



**2,250 m2 Warehouse  
600m2 Office**

Steel Cell is ready and being commercialised

Proven collaborative business model attracting the worlds leading Product Development Companies

Multiple go-to-market partners in key market sectors

Proven world class technology - still getting better





Thank you

Mark Selby

Chief Technology Officer

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+44 (0)1403 273463

[info@cerespower.com](mailto:info@cerespower.com)

Ceres Power, Viking House, Foundry Lane  
Horsham, RH13 5PX UK