



ceres

# Full year results

For the 12 months ended 31 December 2023

**Ceres Power Holdings plc**

**15 April 2024**

# SOFC delivery and SOEC commercial acceleration

- Bosch 'power units' based on Ceres' technology received European funding of €160m
- At Doosan's 50MW factory in Korea, all machinery and processes completed factory acceptance testing, with installation and commissioning on schedule
- Weichai developing larger 75kW stationary power units
- Second generation design of stacks has passed critical design review, offering improvements in performance and costs
- Megawatt-scale electrolyser demonstrator completed testing and has arrived at Shell's R&D centre in Bangalore, India
- Ended the year with a strong cash position and a growing pipeline of opportunities to work with progressive partners



# First dual licence for power and green hydrogen

- In January, Ceres and Delta Electronics signed a global long-term collaboration agreement for cell and stack production
- Agreement includes staged revenues of £43 million to Ceres through technology transfer and manufacturing licence, of which approximately half is set to be recognised in 2024
- Technology introduction and factory construction will start in 2024 and the initial production is expected to start by the end of 2026

**SIGNING CEREMO**  
drogen Energy Technology Co

DELTA



**ceres**



# Financial update

Eric Lakin

# Financial overview

For the year ended 31 December 2023

Revenue

**£22.3m**

2022: £19.8m<sup>1</sup>

Gross margin

**61%**

2022: 54%<sup>1</sup>

Cash and short-term investments

**£140.0m**

Dec 2022: £182.3m

Cash outflow

**£42.4m**

2022: £67.3m

Gross profit

**£13.6m**

2022: £10.7m<sup>1</sup>

Adjusted EBITDA

**(£50.3m)**

2022: (£45.7m)<sup>1</sup>

Order backlog<sup>2</sup>

**£64.2m**

Dec 2022: £71.1m<sup>1</sup>

Employees

**591**

Dec 2022: 570

1. 2022 comparative results have been updated throughout to reflect prior year restatements
2. Contracted order backlog (does not include future royalty revenue)

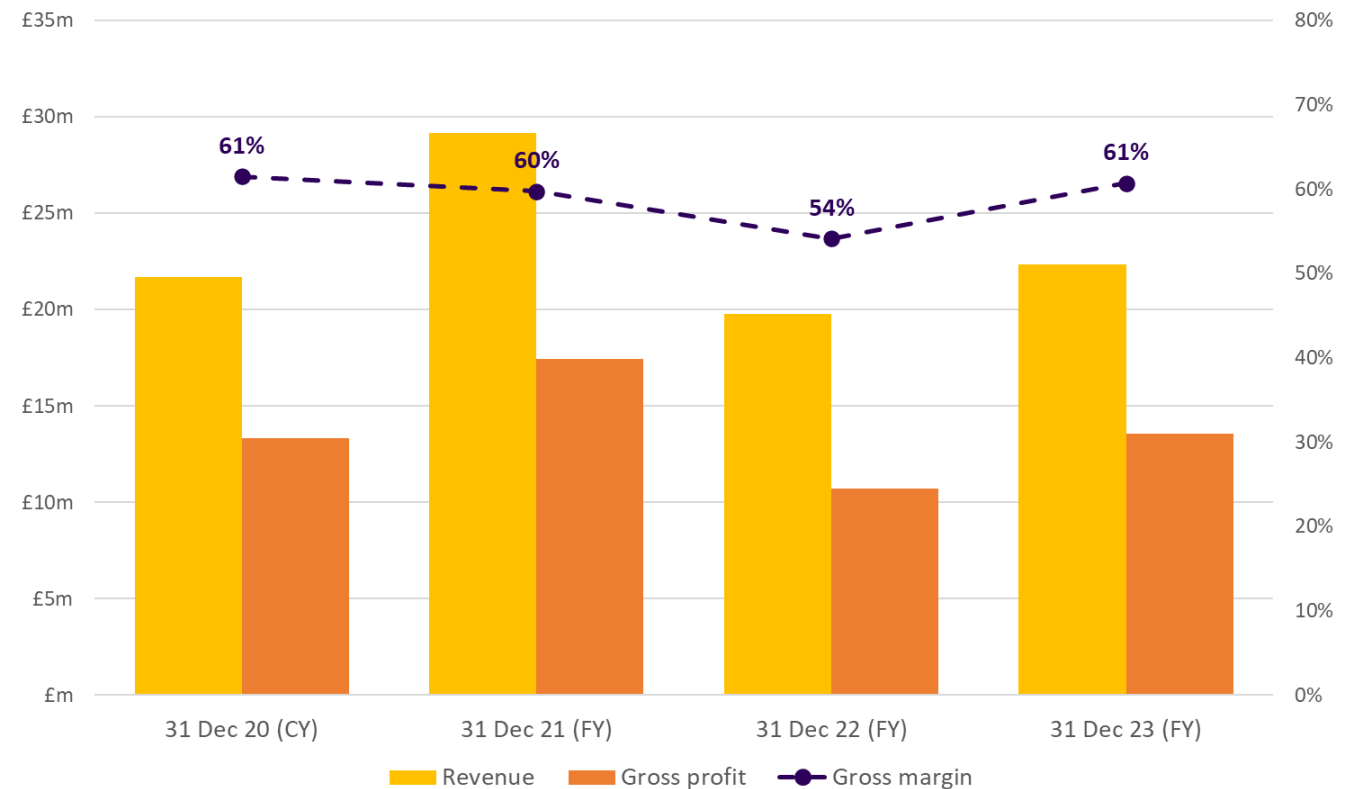
# Revenue and gross profit

Sector leading gross margins maintained

- Top line growth and margins highly influenced by the timing of licence fee revenue recognition

## Revenue and gross profit

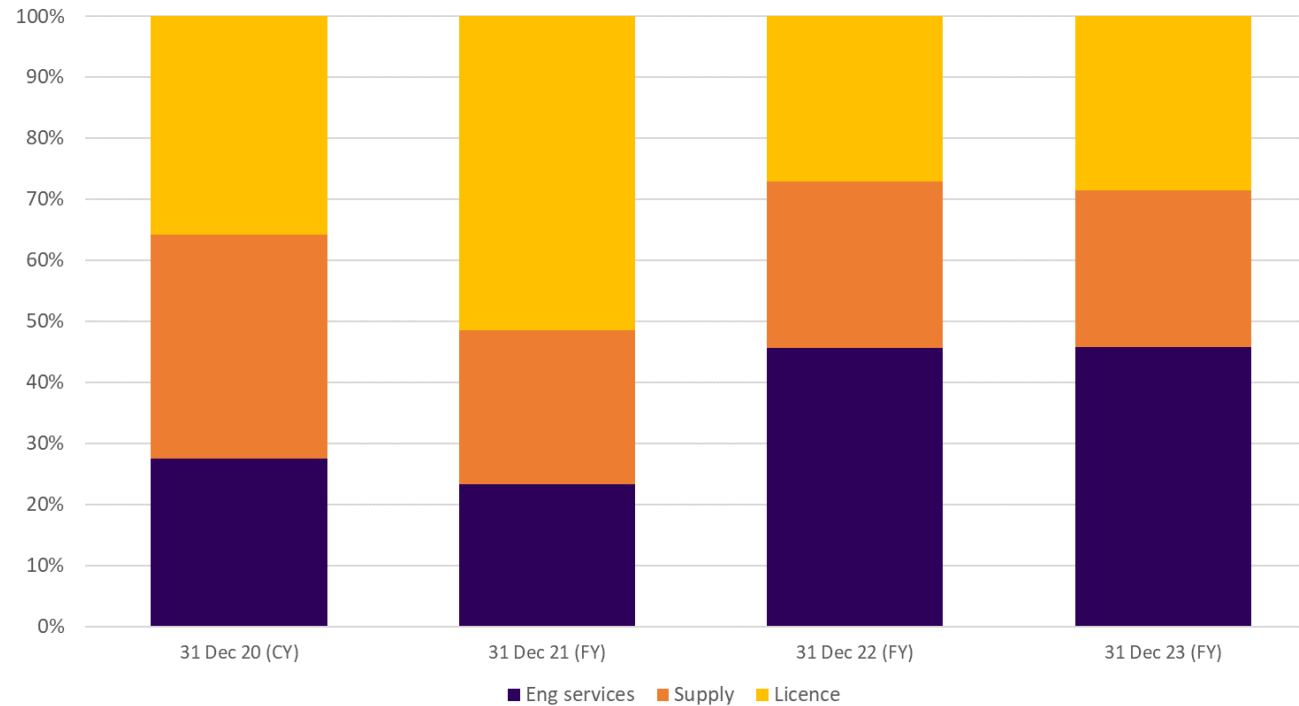
£m



# Revenue mix evolution

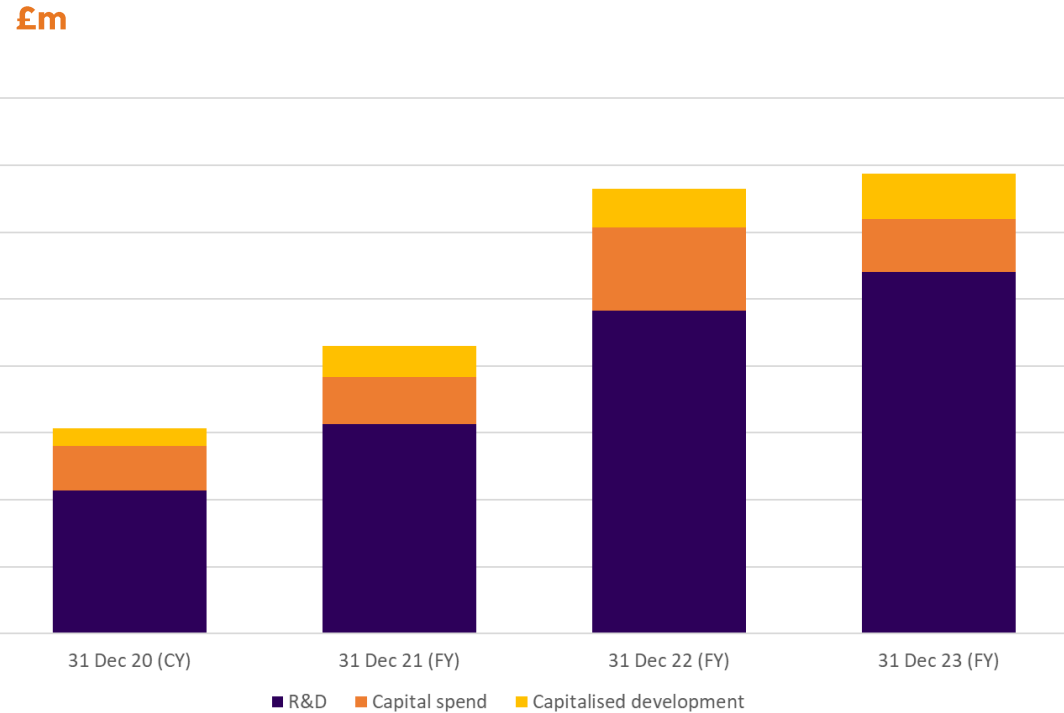
## Revenue mix

%



- Licence fee revenue – very high margin (can be recognised up-front or over time)
- Supply – represents prototype technology (cells and stacks) to partners for development
- Engineering services – joint development and collaboration with partners across multiple applications
- Royalties – longer term, high margin revenue stream from partners based on partner commercial sales

# Investment in R&D



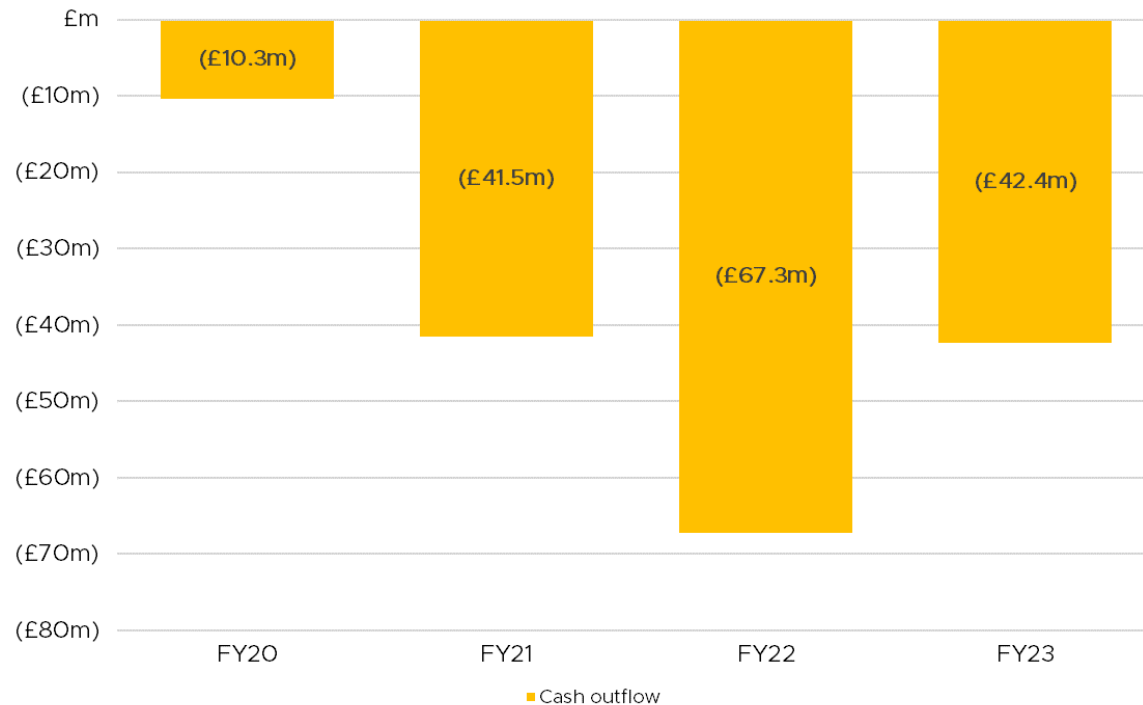
- Research and development investment increased by 11% to £54.0m (2022: £48.5m), consistent with strategy to drive innovation and technology leadership across solid oxide fuel cells and electrolysers
- Capital investment in 2023 to further enhance pilot manufacturing and testing capacity and capability



# Reduced cash outflows in 2023

## Cash outflow\*

£m



- Reduced cash outflows in line with plan, through disciplined working capital and cash management
- Working capital reduced by £10m in 2023, driven largely by reductions in trade receivables
- Total capital investment (capex and capitalised development) reduced to £15m in 2023 from £18m in 2022
- Balance sheet strength and cost management have continued management focus. We expect to continue to reduce the “underlying” cashflow on an EBITDA less total capital investment basis.

\* Cash outflow includes the combined movement of cash, cash equivalents and short-term/ long-term investments

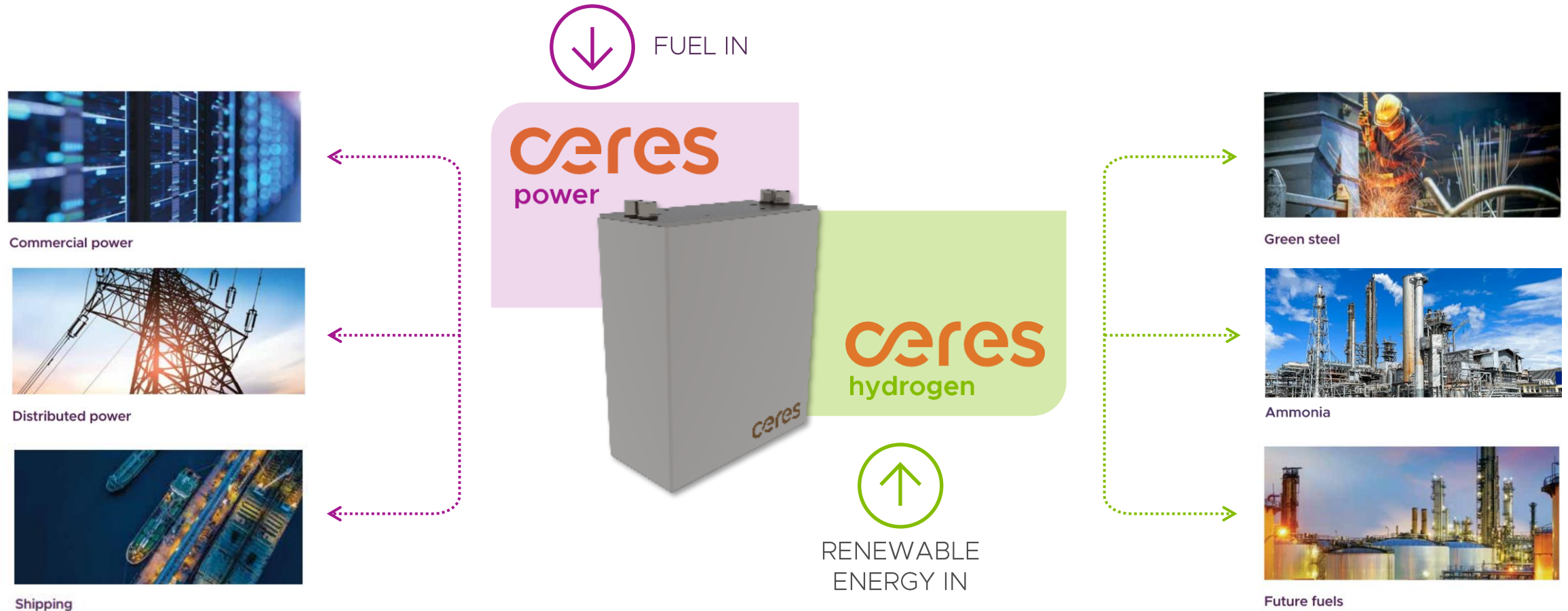
# Business strategy

Phil Caldwell

# Acceleration of SOEC built on leadership in SOFC

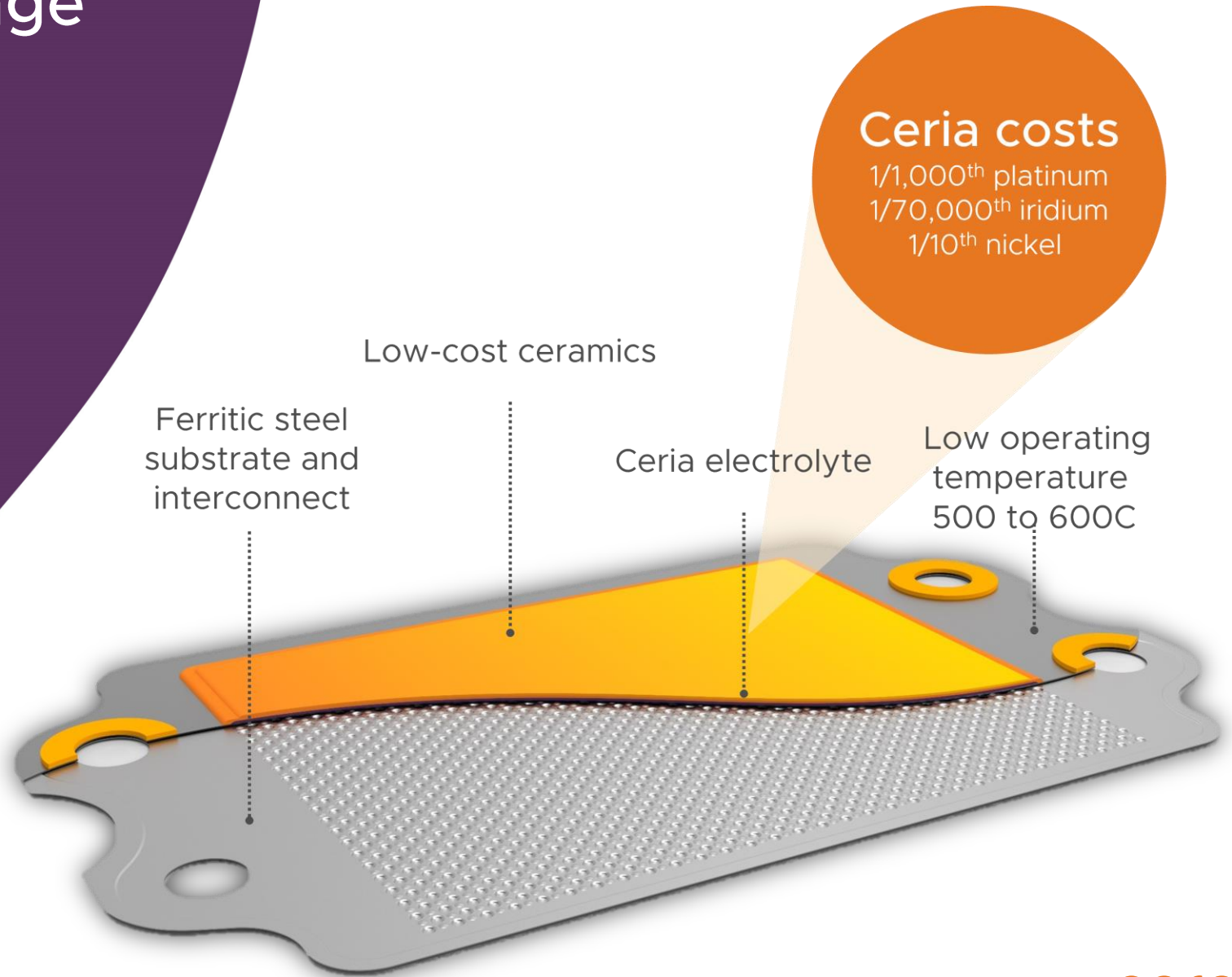
<b>Commercial acceleration</b>	<ul style="list-style-type: none"><li>• Compelling business case across hydrogen, steel and ammonia</li><li>• Engaging the full hydrogen value chain to drive demand for Ceres' technology</li></ul>
<b>Licensing technology leadership</b>	<ul style="list-style-type: none"><li>• Gen2 stacks released, offering improvements in performance and cost</li><li>• Designing the optimum system architecture for a 100MW+ electrolyser system</li></ul>
<b>Execution at pace</b>	<ul style="list-style-type: none"><li>• Partners in Germany, Korea and now Taiwan scaling manufacturing production</li><li>• Licensing technology, factory blueprint and localisation of supply chains</li></ul>

# Platform technology to address significant global markets



# Technology advantage

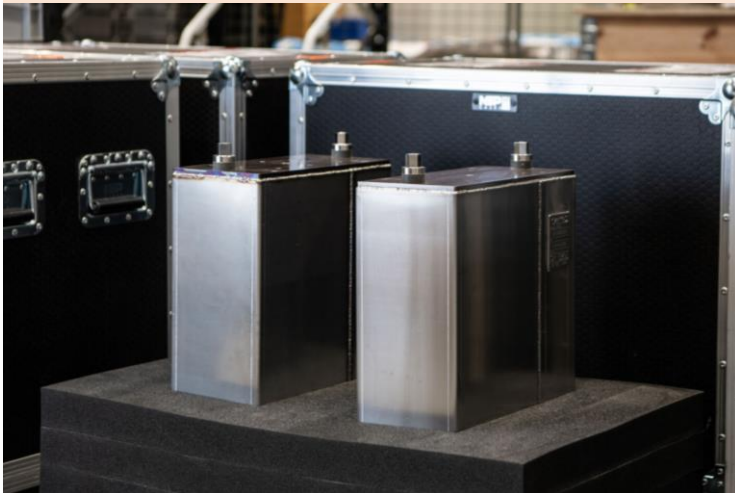
- Class-leading robustness and low temperature performance due to steel mounted design
- Fundamentally lower material costs and reduced volatility in pricing



# Ceres delivers technology and manufacturability

To enable its partners to build SOFC and SOEC capability at scale

## Mature stack design



Stacks have been in low volume production for several years

## Cell and stack manufacturing



Manufacturing plant in South Korea is constructed and preparing for volume production

## 1MW demonstrator system



First SOEC demonstration systems has operated with world class efficiency

# Partners scaling globally with support from Ceres



# Modular technology scales for various applications



10-60kW

**DOOSAN**

scaling to 600kW



20kW

 **BOSCH**

scaling to 100kW



30-75kW

**WEICHA**

scaling to 1MW





Sector focus:

SOFC

# Completion of Doosan's factory in South Korea

Watch the timelapse of the Doosan 50MW factory build on our website here.

<https://www.ceres.tech/media/doosan-factory-construction/>



# Delta takes dual licence for power and hydrogen

- Endorsement of investment into SOEC technology with new partner
- Strong capability in one of the world's leading centres for high volume technology manufacturing
- Targeting customers worldwide, across chemicals, energy, transportation, steel and more
- Existing relationships with potential markets to support their strong ambition for future scale up



# Shell deployment to support compelling use for industry

Low temp

SOEC target

System Efficiency

50

kWh/kg\*

System Efficiency

37

kWh/kg\*

**Green hydrogen production**  
Per year

1MT

1MT

**Cost savings****Electrolyser capacity**

6.3GW

4.7GW

-

**Renewables capacity**

12GW

8.9GW

\$6.8bn

**Electricity costs (\$55/MWh)**  
Per year

\$2.75bn

\$2.0bn

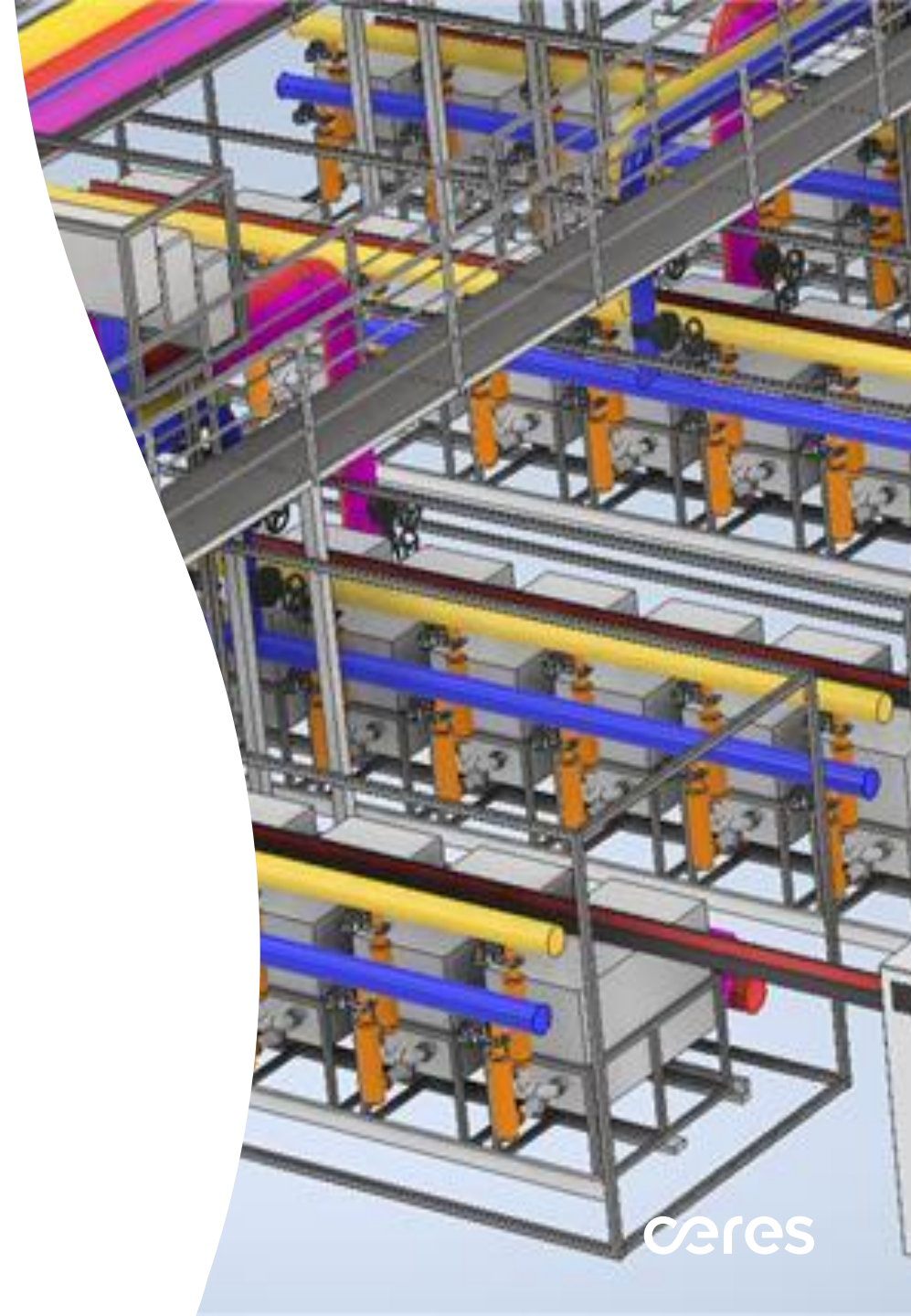
\$0.75bn

26% capex reduction

26% opex reduction  
\$14bn over 20-year project lifetime

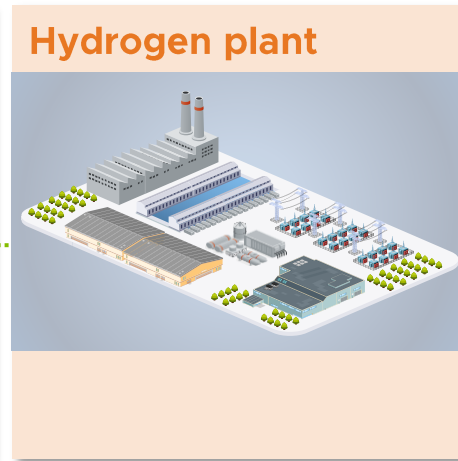
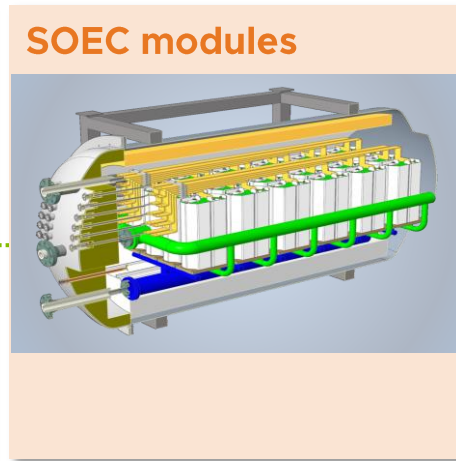
# AtkinsRéalis collaboration for GW-scale hydrogen design

- Front-end engineering design for a commercial multi-megawatt modularised hydrogen production system based on Ceres' technology
- Aims to create the optimum system architecture for a 100MW+ electrolyser system, as a building block for gigawatt-scale green hydrogen plants
- Hydrogen production at essential in achieving large scale reductions in industrial emissions



# Licence combined with process development experience

Enables the deployment of state-of-the-art SOEC modules



Green steel



Ammonia



Future fuels

# Outlook and focus for the year ahead

- Bosch, Doosan and now Delta progressing towards scaled technology production
- Continue to grow our relationship with Weichai in China
- Demonstrator programmes for green hydrogen on track with Shell, and with Bosch and Linde Engineering
- Significant new licence signed with Delta in January 2024 and a growing pipeline of interest for power and electrolysis applications
- Collaboration with AtkinsRéalis to design the optimum system architecture for a 100MW+ electrolyser system, as a building block for gigawatt-scale plants
- Confidence we will at least double revenues in 2024, compared to 2023, based on existing contracts

# Questions

## Investor Relations

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# Appendix: Reconciliation of prior year audit adjustments

- A number of prior period corrections were identified during the audit, the main ones relating to the historical timing and treatment of revenue recognition and foreign exchange impact for long term contracts, the dilapidation provision and capitalisation of relevant costs
- The total impact of all items is a decrease in net assets of £3.6 million in 2022, with the majority being explained by a reduction of revenue of £1.7 million in 2021 and £2.3 million in 2022. These decreases in revenue are offset by increases in revenue of £0.3 million in 2023 and £3.3 million increase in the opening order backlog for 2024. (See Note 1 of the Financial Statements for further detail).

Revenue	2021	2022	2023
Unadjusted	£30.8m	£22.1 m	£22.0m
Change	(£1 .6m)	(£2.3m)	£0.3m
<b>Adjusted</b>	<b>£29.1 m</b>	<b>£19.8m</b>	<b>£22.3m</b>

Gross Profit	2021	2022	2023
Unadjusted	£19.0m	£13.1 m	£13.4m
Change	(£1 .6m)	(£2.3m)	£0.1 m
<b>Adjusted</b>	<b>£17.4m</b>	<b>£10.7m</b>	<b>£13.6m</b>