



Creating a world  
fit for the future



# Ricardo plc **Preliminary Results Presentation**

**Year ended 30 June 2021**  
Presented September 2021

[ricardo.com](https://www.ricardo.com)

## Chair's Statement and Highlights

Financial Overview

Operating Segment Review

Case Studies

# Opening remarks

## Chair's statement



*“During the pandemic, Ricardo’s clear purpose and values have been instrumental in allowing for the business to continue to deliver customer service excellence. I am deeply grateful to our colleagues across the Group for their hard work and continued support - this has ensured that we have delivered in the year and allowed us to make further strategic progress.”*

- Ricardo delivered a robust set of results despite challenging market conditions
- Revenue of £352m, together with underlying profit before tax of £18.0m and underlying basic earnings per share of 22.4 pence
- Delighted to announce the appointment of Graham Ritchie as CEO, effective 1 October 2021
- Replacing Dave Shemmans, who is stepping down after 16 years as CEO on 30 September 2021

# Summary

## Group highlights and outlook



- The business continues to grow and we are well positioned as markets recover post COVID-19
- Positive momentum, with H2 underlying profit before tax of £13.0m, compared to £5.0m in H1
- All segments, except **Automotive & Industrial**, increased profitability on the prior year:
  - **Energy & Environment** and **Rail** performed strongly, with increased margins
  - **Defense** ABS retro-fit deliveries commenced
  - In **Performance Products**, transmission volumes increased year-on-year and engine volumes increased steadily throughout the year
  - Within **Automotive & Industrial**, performance improved in the US and China and declined in EMEA
- Equity fund raise, together with a strong working capital performance, enabled the Group to reduce net debt by 36% to £46.9m
- Final dividend of 5.11p per share (total dividend: 6.86p) declared

### FY outlook

- Positive outlook with a continuing recovery backdrop
- We enter FY 2021/22 with an robust order book and pipeline

#### Revenue

£352m

Flat

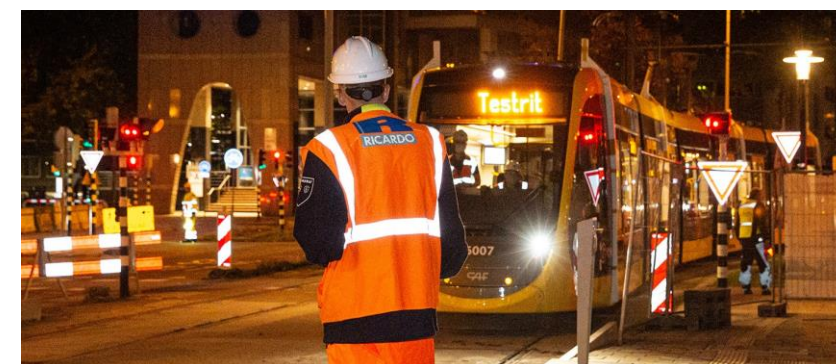
2019/20: £352m

#### Underlying PBT

£18.0m

+15%

2019/20: £15.6m



#### Order intake

£352m

-5%

2019/20: £369m

#### Net debt

£(47)m

£26m reduction

2019/20: £(73)m

Chair's Statement and Highlights

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# Key indicators



Revenue

**£352m**

Flat

2019/20: £352m

Underlying operating profit margin<sup>(1)</sup>

**6.5%**

+0.8ppts

2019/20: 5.7%

Underlying PBT<sup>(1)</sup>

**£18.0m**

+15%

2019/20: £15.6m

Underlying basic earnings per share<sup>(1)</sup>

**22.4p**

+5%

2019/20: 21.3p

Underlying operating cash conversion<sup>(2)</sup>

**87%**

-15ppts

2019/20: 102%

Net debt

**£(47)m**

£26m reduction

2019/20: £(73)m

Dividend (paid and proposed)

**6.86p**

+10%

2019/20: 6.24p

Headcount

**2,901**

-3%

2019/20: 3,003

(1) Excluding specific adjusting items, which comprise amortisation of acquired intangible assets, acquisition-related expenditure, reorganisation costs and non-recurring items.

(2) Cash from operations, adjusted for the cash impact of specific adjusting items, divided by EBITDA.

# Improving performance despite disruption

£m	Year ended 30 June		Year-on-Year Movement
	2021 Underlying <sup>(1)</sup>	2020 Underlying <sup>(1)</sup>	% change
Revenue	351.8	352.0	0%
Gross profit	117.7	115.1	2%
Administration costs	(95.0)	(95.1)	0%
Operating profit	22.7	20.0	14%
Net finance costs	(4.7)	(4.4)	7%
Profit before tax	18.0	15.6	15%
Taxation charge	(4.8)	(4.1)	17%
Profit for the period	13.2	11.5	15%

(1) Excluding specific adjusting items, which comprise amortisation of acquired intangible assets, acquisition-related expenditure, reorganisation costs and non-recurring items. A full income statement, including specific adjusting items, is included in the Appendix.

# Financial results by operating segment

## Resilient top line performance



Year ended 30 June

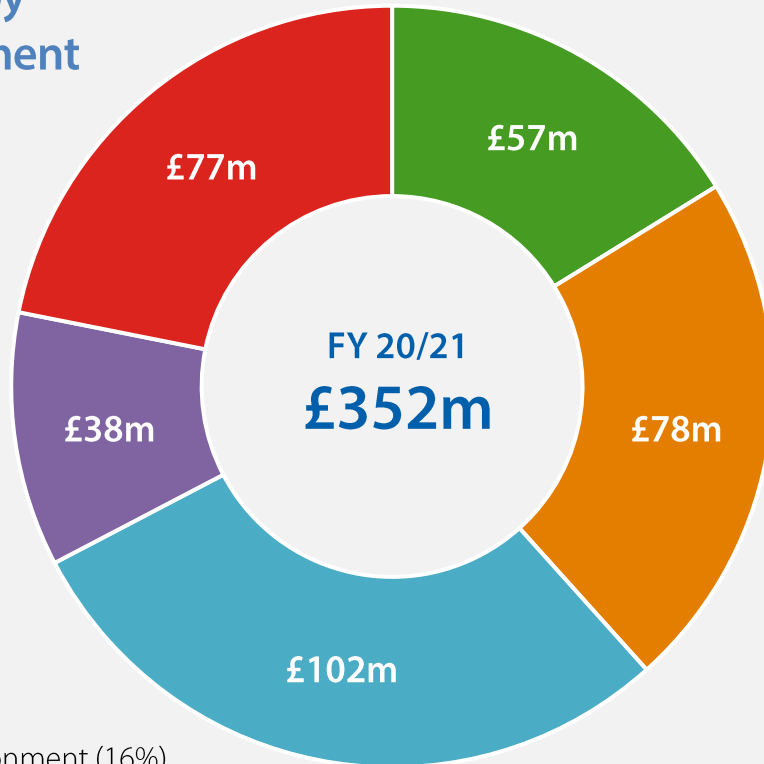
£m	Revenue earned		Underlying operating profit <sup>(1)</sup>		Underlying operating profit <sup>(1)</sup> margin	
	2021	2020	2021	2020	2021	2020
Automotive & Industrial	102.5	117.2	(1.6)	0.5	(1.6)%	0.4%
Performance Products	76.6	75.9	6.8	5.1	8.9%	6.7%
<b>Auto Related</b>	<b>179.1</b>	<b>193.1</b>	<b>5.2</b>	<b>5.6</b>	<b>2.9%</b>	<b>2.9%</b>
Energy & Environment	57.1	50.8	8.5	6.3	14.9%	12.4%
Rail	77.7	75.3	8.0	5.8	10.3%	7.7%
Defense	37.9	32.8	5.4	5.1	14.2%	15.5%
<b>Non-Auto Related</b>	<b>172.7</b>	<b>158.9</b>	<b>21.9</b>	<b>17.2</b>	<b>12.7%</b>	<b>10.8%</b>
Plc Costs			(4.4)	(2.8)		
<b>Total</b>	<b>351.8</b>	<b>352.0</b>	<b>22.7</b>	<b>20.0</b>	<b>6.5%</b>	<b>5.7%</b>

(1) Excluding specific adjusting items, which comprise amortisation of acquired intangible assets, acquisition-related expenditure, reorganisation costs and non-recurring items.



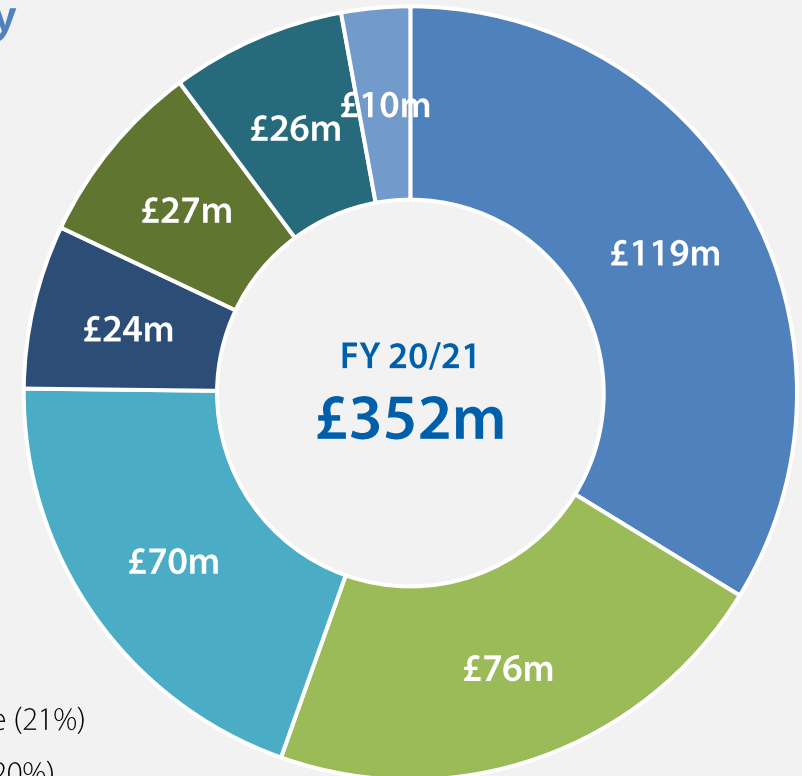
# Well balanced revenue across our business

Revenue split by operating segment



- Energy & Environment (16%)
- Rail (22%)
- Automotive & Industrial (29%)
- Defense (11%)
- Performance Products (22%)

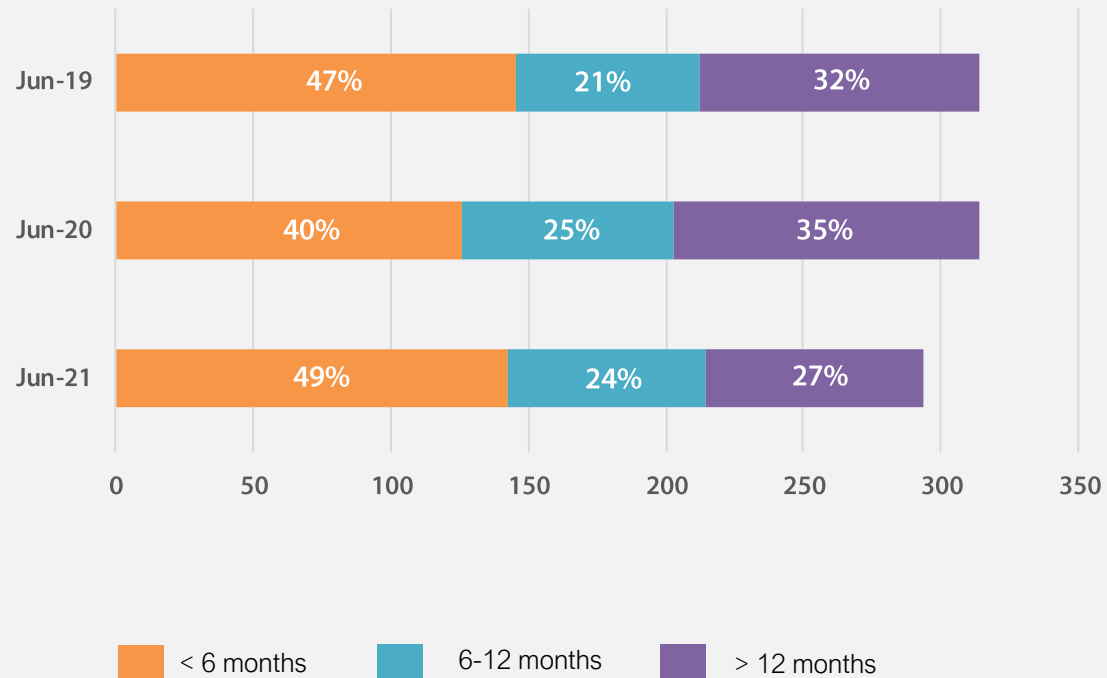
Revenue split by geographies



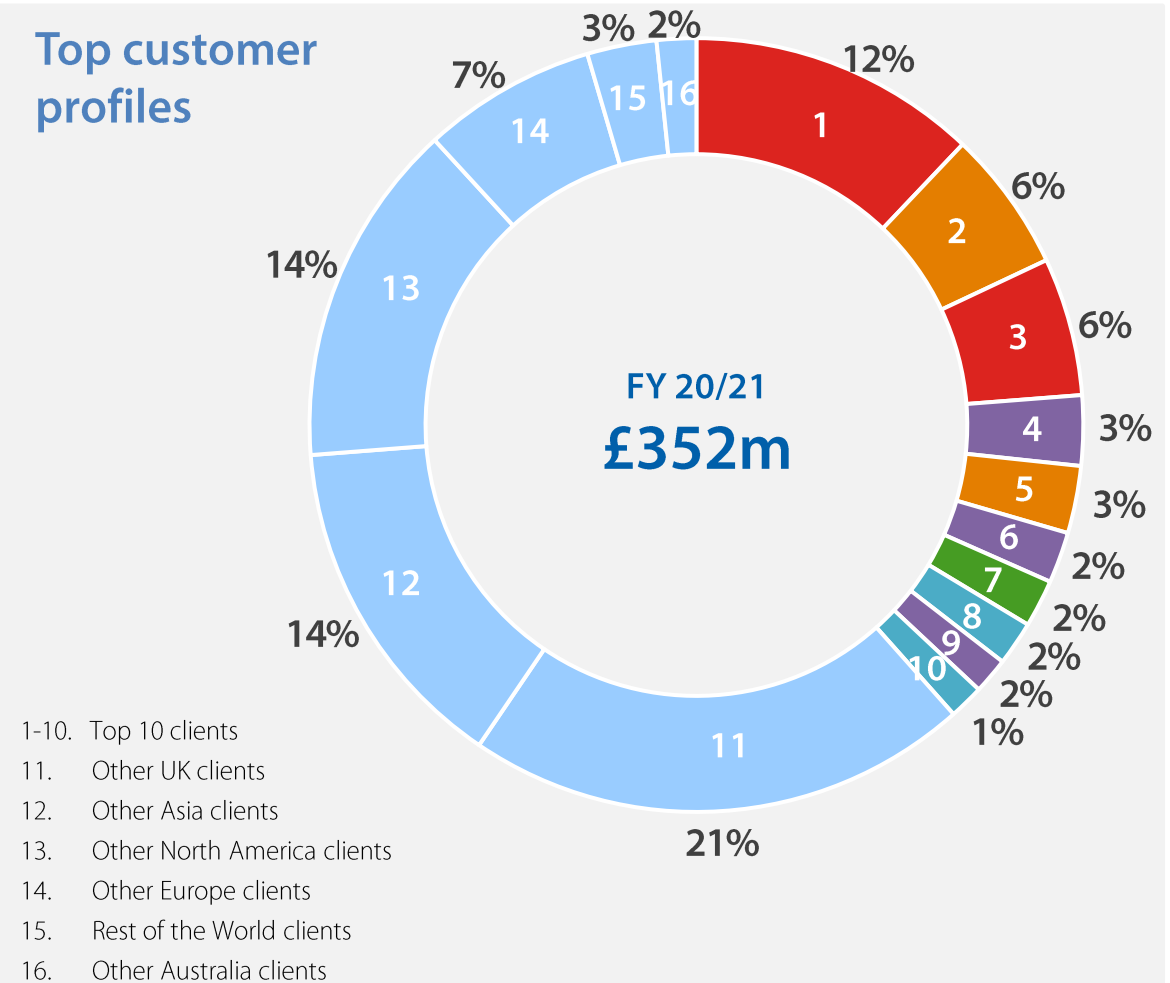
- UK (34%)
- Mainland Europe (21%)
- North America (20%)
- China (7%)
- Australia (8%)
- Rest of Asia (7%)
- Rest of the World (3%)

# A diverse customer mix, with a good level of multi-year business

Order book profile



Top customer profiles

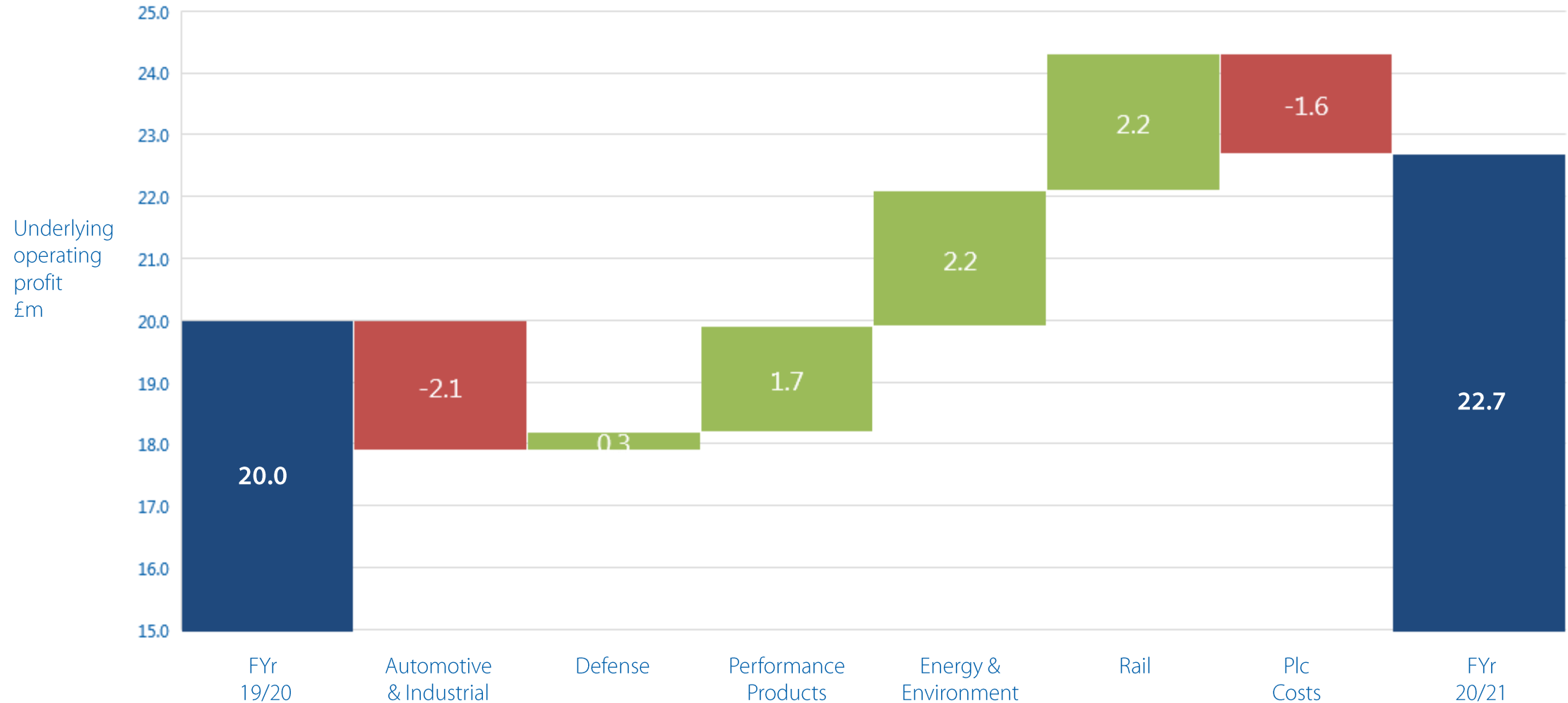


- 1-10. Top 10 clients
- 11. Other UK clients
- 12. Other Asia clients
- 13. Other North America clients
- 14. Other Europe clients
- 15. Rest of the World clients
- 16. Other Australia clients

## Operating profit by segment



# Strong performance in Rail and EE with steadily increasing PP volumes, partially offset by further Automotive decline



# Operating profit by segment



## Improving profitability post-COVID-19



# Good cash conversion

Year ended  
30 June

£m	2021	2020
EBITDA	42.4	37.6
Share based payments, Fair value gains & losses on derivatives, Profit on disposal	1.4	0.9
Working capital (increase)/decrease	(2.3)	4.5
Pension charge and funding	(4.6)	(4.6)
<b>Underlying cash from operations</b>	<b>36.9</b>	<b>38.4</b>
<b>Underlying cash conversion %</b>	<b>87%</b>	<b>102%</b>
Net finance costs	(4.2)	(4.2)
Tax paid	(2.9)	(5.3)
Net capital expenditure	(13.1)	(17.0)
Principal element of lease (payments)/receipts	(6.3)	(5.4)
Dividends and return of capital	(1.4)	(11.6)
Purchase of own shares, Cash flow hedges, FX	(1.6)	-
<b>Movement in net debt before acq'n &amp; restructuring related costs</b>	<b>7.4</b>	<b>(5.1)</b>
Proceeds from equity fundraise	28.2	-
Acquisition and restructuring related costs	(9.1)	(20.9)
Movement in net debt <sup>(1)</sup>	26.5	(26.0)
Opening Net Debt	(73.4)	(47.4)
Closing Net Debt	(46.9)	(73.4)

(1) Cash outflow net of movement in borrowings.

Chair's Statement and Highlights

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Case Studies

# Energy & Environment

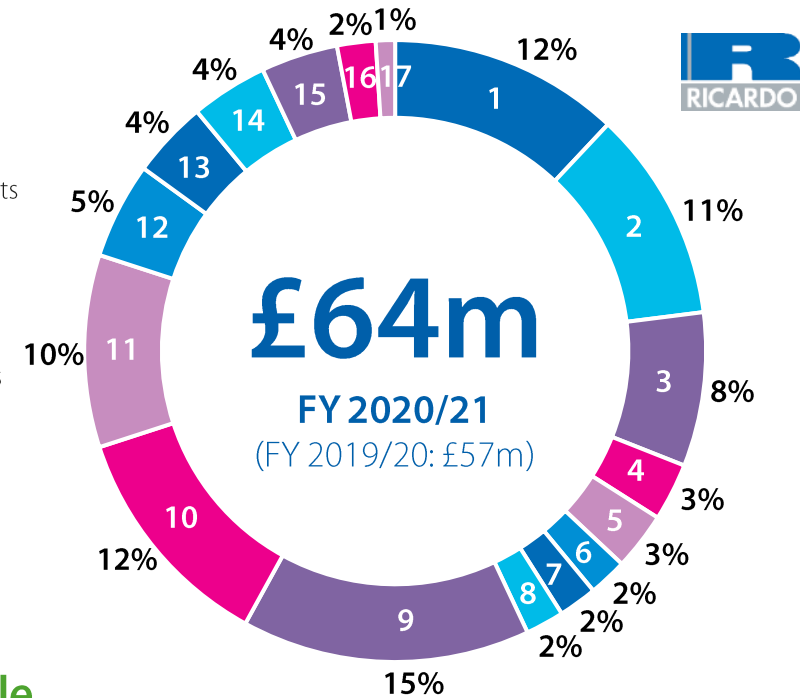
Partner of choice for solving complex environmental challenges, through Industry-leading analysis, advice and data

- Record growth in profit (35%) as we see strong opportunities across our services and markets
- We are continuing to support a wide variety of countries and cities around the world as they develop, and enhance, ambitious climate action plans, in the lead up to COP 26
- Our Water business has seen exceptional growth due to environmental support for major water projects in the UK
- The European Green Deal has driven rapid expansion of our policy work to support the transition to Net Zero
- We have designed, launched and overseen the award of over £225m of grant funding for new low carbon technology innovations across 12 different UK Government programmes
- Underlying operating profit margin increased year-on-year

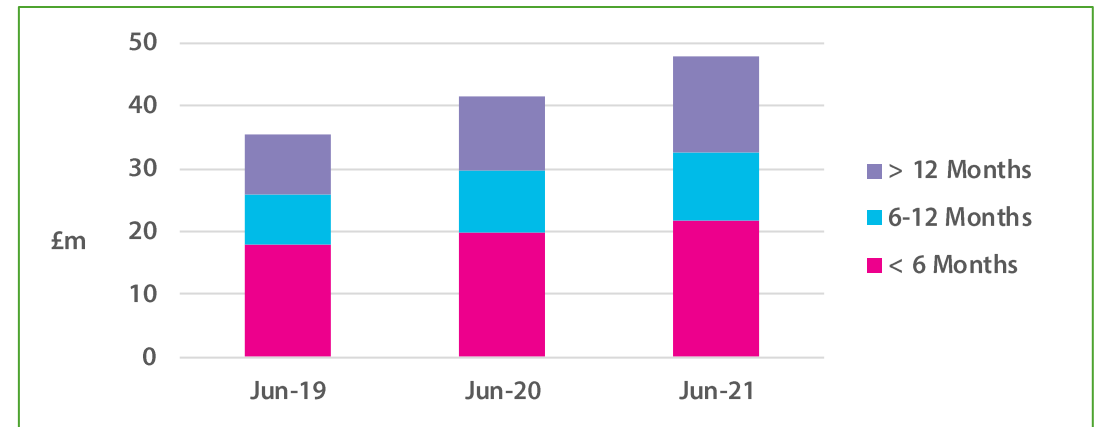
<b>Revenue</b> <b>£57.1m</b> 2019/20: £50.8m	<b>Underlying operating profit</b> <b>£8.5m</b> 2019/20: £6.3m	<b>Underlying operating profit margin</b> <b>14.9%</b> 2019/20: 12.4%
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## Order Intake

- 1-9. Top 9 clients
- 10. Other UK clients
- 11. Other UK Government clients
- 12. Other Australia clients
- 13. Other UK Water clients
- 14. Rest of the World clients
- 15. Other Europe clients
- 16. Other North America clients
- 17. Other Asia clients



## Order Book Profile



**Over 1,000** live projects | **690** colleagues

# Automotive & Industrial

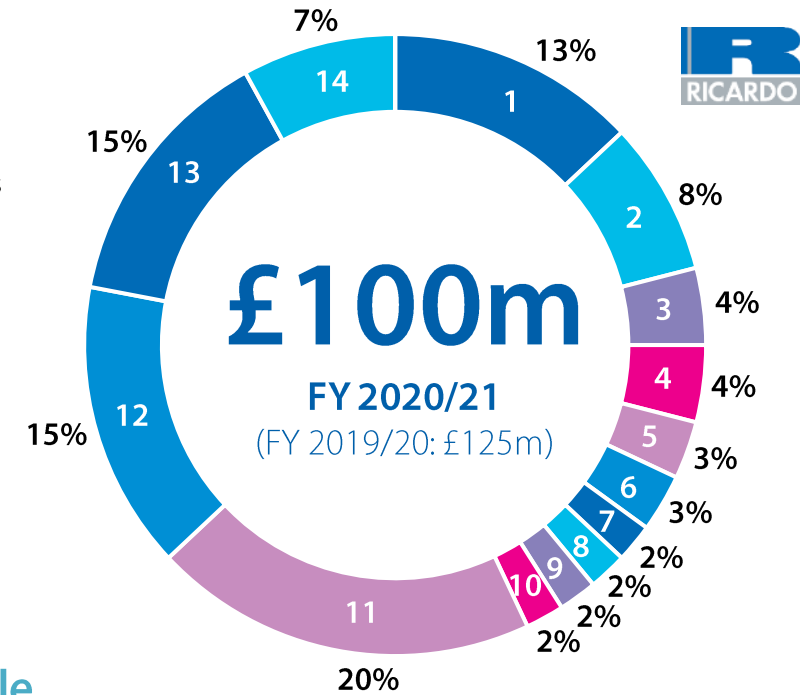
Trusted global engineering-services partner for clean, efficient, integrated propulsion and energy systems

- Demand showing signs of recovery in the UK & Europe post COVID-19, but the market remains highly competitive
- US operations continue to trend towards recovery with strong interest from EV start-ups and commercial vehicles
- China market improving, but competitors are putting aggressive downward pressure on price
- Increasing interest in EVs globally, putting pressure on new energy vehicle resources
- General market uncertainty and global supply challenges leading to delays in programme decisions

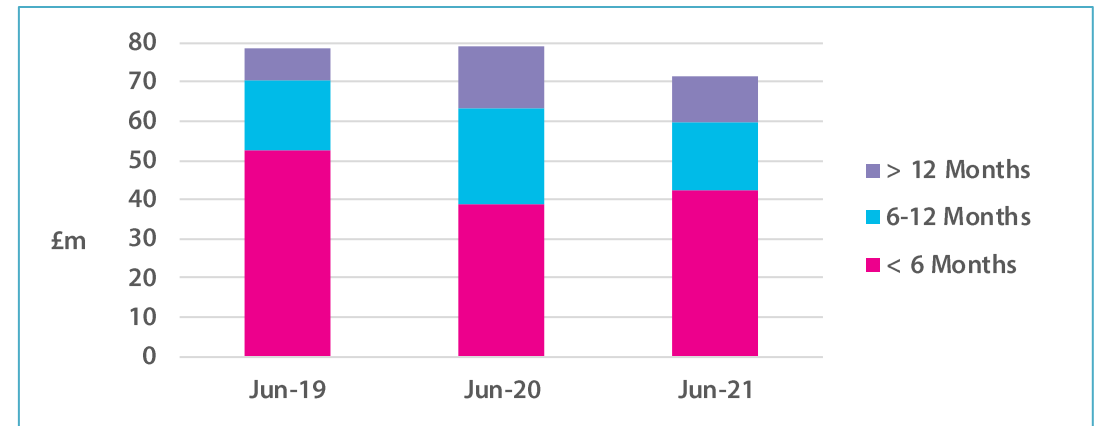
<b>Revenue</b> <b>£102.5m</b> 2019/20: £117.2m	<b>Underlying operating (loss)/profit</b> <b>£(1.6)m</b> 2019/20: £0.5m	<b>Underlying operating (loss)/profit margin</b> <b>(1.6)%</b> 2019/20: 0.4%
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## Order Intake

- 1-10. Top 10 clients
- 11. Other Asia clients
- 12. Other North America clients
- 13. Other UK clients
- 14. Other Europe clients



## Order Book Profile



Over 430 live projects

996 colleagues





# Defense

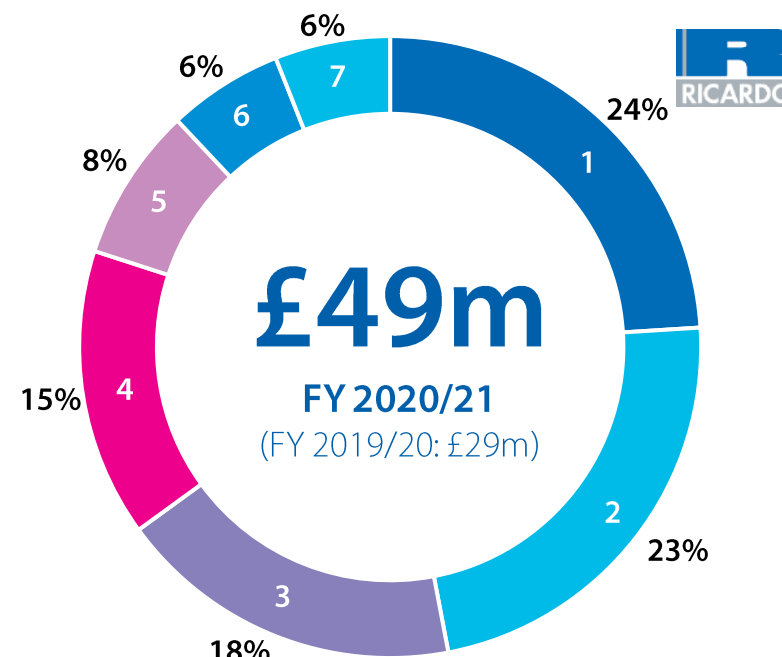
Trusted expertise in delivering wide-ranging engineering programmes to drive efficiencies while optimising safety and performance

- Strong order intake in both Engineering Services and ABS/ESC
- Significant multi-year contract from GM to produce and field the Army's new Infantry Squad Vehicle (ISV)
- ABS retrofit contract award representative of Army's acceptance of new methods of technology integration
- Delivering software solutions to provide cybersecure functionality and systems integration for the Army and Navy
- Growing decarbonisation and Net Zero planning focus within the US defence sector
- Timing of ABS retrofit award resulted in lower margin year-on-year, with margin higher in H2 compared to H1

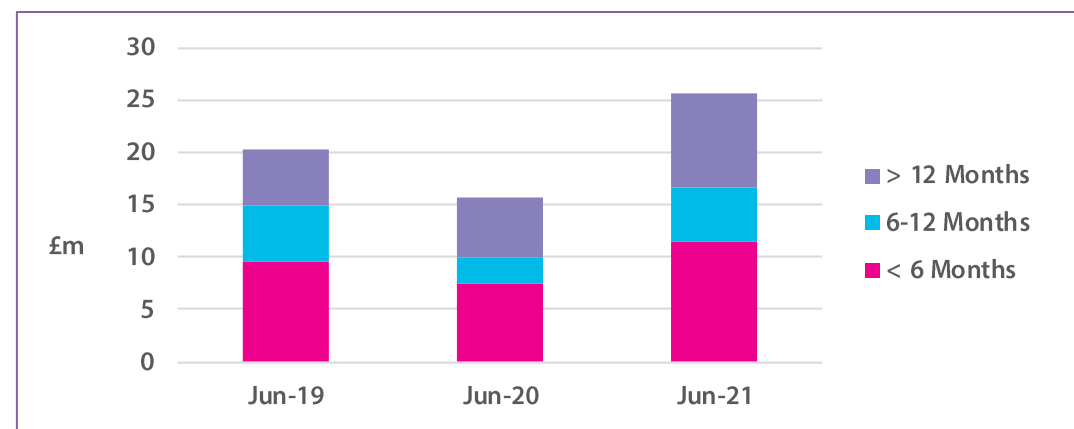
<b>Revenue</b> <b>£37.9m</b> <small>2019/20: £32.8m</small>	<b>Underlying operating profit</b> <b>£5.4m</b> <small>2019/20: £5.1m</small>	<b>Underlying operating profit margin</b> <b>14.2%</b> <small>2019/20: 15.5%</small>
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## Order Intake

1-6. Top 6 clients  
7. Other North America clients



## Order Book Profile



**Over 40** live projects | **185** colleagues

# Update on ABS retrofit programme



- **Ambulance Retrofit:** Contract awarded to Ricardo in December 2020. First US retrofit kit deliveries achieved in January and February 2021
- **Fleet Retrofit:** approx. 48,000 vehicles in the HMMWV fleet are not fitted with ABS/ESC
- On 16 March 2021, Ricardo Defense received a 3 year sole-source contract to supply ABS/ESC kits
- Year 1 (March 2021 to February 2022):
  - c. 2,000 kits, \$17m order value via two purchase orders, in March and July 2021
- Years 2 and 3 (March 2022 to February 2024):
  - Discussions on phasing underway – volumes can flex up/down depending on Army requirements each year

## ABS/ESC new vehicle production programme:

- > 7,000 ABS/ESC kits (over \$55m) shipped to date
- > 1,500 spare parts shipped over the last 2 years
- Continuing to support new vehicle production in CY2021
- Establishing business around wear item replacement (brake pads and rotors) through 2048



The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

# Performance Products

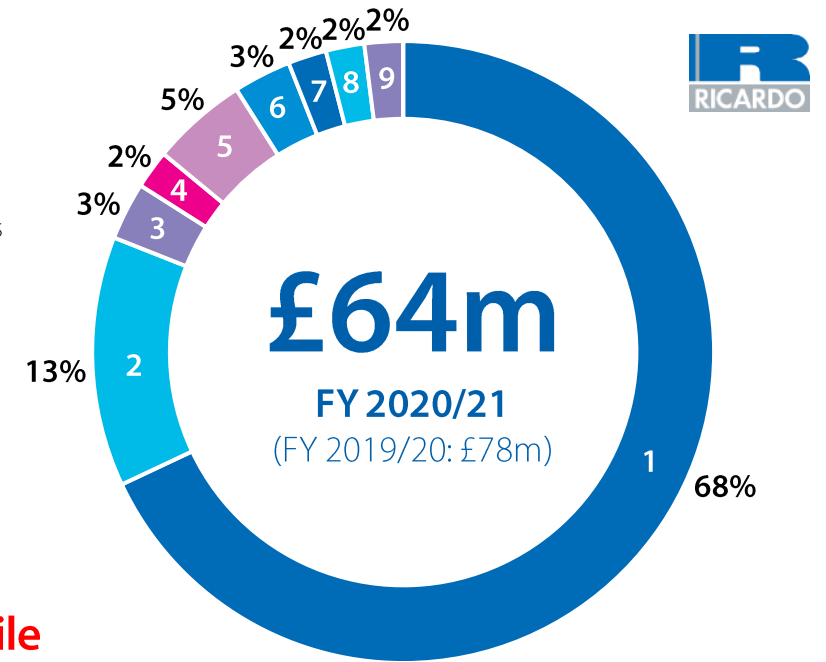
Engineering specialists in niche-volume manufacturing and software development to analyse and optimise complex physical systems

- McLaren engine production delivered over the year as expected, with volumes consistently increasing through the year
- Transmission deliveries to Porsche, Bugatti and Aston Martin increased year-on-year, in line with expectations
- Increasing demand in the second half of the year for our Industrial Engineering services
- Further motorsport transmission programmes secured in Formula E, Formula 1 and GT racing
- Aerospace component sales remain suppressed by the ongoing pandemic, however these have been more than offset by increased demand for our defence products
- Underlying operating profit margin increased year-on-year due to mix and pricing of products sold

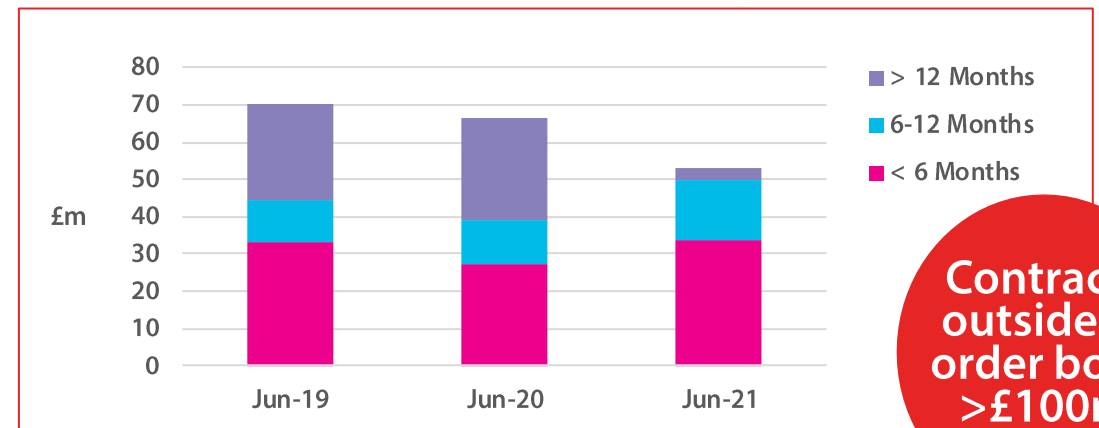
<b>Revenue</b> <b>£76.6m</b> <small>2019/20: £75.9m</small>	<b>Underlying operating profit</b> <b>£6.8m</b> <small>2019/20: £5.1m</small>	<b>Underlying operating profit margin</b> <b>8.9%</b> <small>2019/20: 6.7%</small>
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## Order Intake

- 1-4. Top 4 clients
5. Other Asia clients
6. UK Defence
7. Other North America clients
8. Other Europe clients
9. Other UK clients



## Order Book Profile



**Contracts outside of order book >£100m**

**Over 20** live production projects

**421** colleagues

# Summary

## Group highlights and outlook



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- Positive momentum, with H2 underlying profit before tax of £13.0m, compared to £5.0m in H1
- All segments, except **Automotive & Industrial**, increased profitability on the prior year:
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- Final dividend of 5.11p per share (total dividend: 6.86p) declared

### Revenue

£352m

Flat

2019/20: £352m

### Underlying PBT

£18.0m

+15%

2019/20: £15.6m



### Order intake

£352m

-5%

2019/20: £369m

### Net debt

£(47)m

£26m reduction

2019/20: £(73)m

### FY outlook

- Positive outlook with a continuing recovery backdrop
- We enter FY 2021/22 with an robust order book and pipeline

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**Case Studies**

# Case study: Climate action planning for resilient net-zero carbon futures in African megacities

## The challenge

Over 70% of global CO2 emissions are attributable to urban areas, and whilst African countries are among the world's lowest emitters, they are urbanising fast.

## Our approach

Ricardo is providing technical support to develop ambitious climate action plans in 9 megacities in 6 African countries. This includes developing GHG emissions models, assessing actions, supporting governance and monitoring, and aligning with the countries' Nationally Determined Contributions.

## Client benefits

Utilising Ricardo's technical expertise, the countries will benefit from a comprehensive, evidence-based approach to low carbon city development, which in turn will significantly contribute to national level climate objectives.









## Case study: Technology application lead for Toyota's hydrogen fuel cell prototype trucks



### Background

Toyota has developed and deployed one of the most advanced hydrogen fuel cells in transportation. Given market viability and immediate societal need to reduce emissions within the class 8 space, Toyota's initial focus is to utilise this technology within commercial applications and heavy-duty trucks delivering a proven, modular, and scalable solution.

### Our approach

Ricardo was subsequently contracted to lead the adaptation of the technology for application, which included vehicle integration, thermal cooling development, vehicle build and associated vehicle testing and validation.

### Business benefits

Together, Toyota and Ricardo have significantly increased their understanding of hydrogen fuel cell technologies and the complexity of integration. Ricardo has accelerated the development and integration time by providing a turnkey solution from design through to test and validation.

# Case study: Retrofit hydrogen fuel cell bus

## The challenge

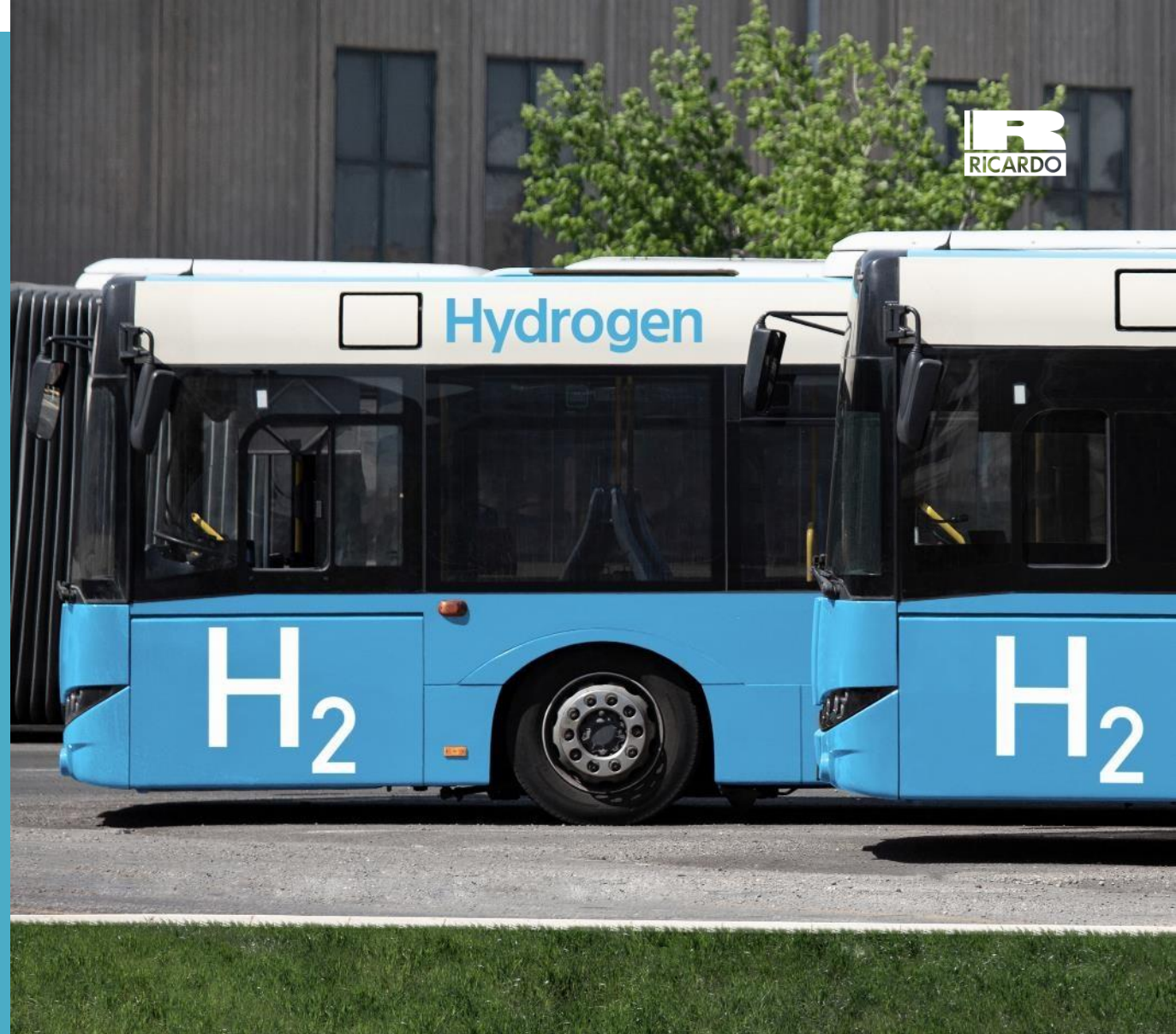
Of the 38,000 buses in service in the UK: 98% are diesel powered; and 50% are less than eight years old. Bus operators need to transition to zero emission vehicles by 2030 while still grappling with the financial challenges of the global pandemic.

## Our approach

Partnering with Stagecoach, Ricardo will create a retrofit hydrogen fuel cell bus demonstrator for the UK's first hydrogen transport hub in the north-east of England.

## Client benefits

The retrofit solution is one third the cost of buying a new bus and reduces carbon dioxide and noxious emissions by 100%.



## Case study: Remote vehicle testing for Alstom TRAXX MS3

### The challenge

As Europe was imposing lockdowns in response to COVID-19, Ricardo's testing team were in the Czech Republic conducting an on-track programme for Alstom's TRAXX MS3 locomotive. The lockdown restrictions looked set to impose significant delays on the client's development timetable.

### Our approach

With the client's support, we quickly developed a remote approach to the test programme, with specially configured hardware and software to automate the measurement systems, and cameras installed to stream live footage to the Ricardo team in the Netherlands.

### Business benefits

It is estimated that we prevented a six-month delay in the vehicle's progress towards authorisation.



Photo: Bombardier / Alstom



Case study:

## System engineering support for Manila Metro Line 7



### The challenge

Manilla's Metro Rail Transit Line 7 is a 23km route under construction to the north east of the Philippine capital. Hyundai Rotem won the contract to supply rolling stock and signalling technology for the route but needed a partner to support the complex sub-system integration.

### Our approach

By providing systems engineering support, including requirements capture and Independent Verification and Validation services, Ricardo is ensuring that Hyundai and their supply chain can link their designs, modelling, calculations and documents to the system's original specifications.

### Client benefits

Ricardo's contribution to the programmes is helping to manage the risks of delays and cost overrun during a build that is due to complete in 2022.

# Case study: Monitoring the power grid in Ethiopia

## Background

Improving the use of energy throughout the world requires improved visibility into the collaborative performance of fossil fuels and renewable sources to meet customer demand with a sustainable quality of service.

## Our approach

Ricardo Defense is leveraging advanced sense and response software developed in support of US military condition-based maintenance to provide the Ethiopia Electric Utility (EEU) with Total Performance Intelligence (TPI) visibility in cooperation with Ricardo's Energy and Environment consultants and the UK PACT (Partnering for Accelerated Climate Transitions).

## The benefit

Repurposing this defense inspired technology to integrate complex energy sources and improve visualisation of dynamic large data sets needed helps to ensure a non-disruptive transition to a sustainable climate energy posture.





## Case study: Supporting the development of a robotic vehicle fleet



### **The challenge**

The US Army has been tasked to develop a fleet of robotic vehicles that can be remotely operated to do two things: Firstly, to provide additional time for leaders to make decisions by providing robotic reconnaissance capabilities at a safe distance; and secondly, to replace troops in high safety-risk activities with unmanned vehicles.

### **Our approach**

To support this initiative, Ricardo Defense is providing systems engineering, integration and sustainment services to deliver prototype robotic vehicles to the Army that are being used in manned-unmanned teaming (MUM-T) experiments that explore the capabilities of a robotic fleet.

### **The benefit**

The expertise offered by Ricardo Defense in systems integration and digital engineering is shaping the way the Army will utilise robotic and autonomous vehicles.

Case study:

## McLaren Artura powertrain assembly

### Background

Ricardo continues to support the British luxury supercar maker, McLaren Automotive, with engine supply for its range of supercars, as the brand moves towards further electrification.

### Our approach

We are well known for assembling McLaren's V8 engines and in 2021 we also started to assemble the first of the new generation of highly efficient V6 engines, which are at the heart of the new Artura, McLaren's first hybrid series supercar.

### The benefit

Thanks to the class leading V6 and an entirely new hybrid powertrain, combined with a new lightweight composite monocoque, the Artura has the best fuel economy and lowest emissions of any McLaren.



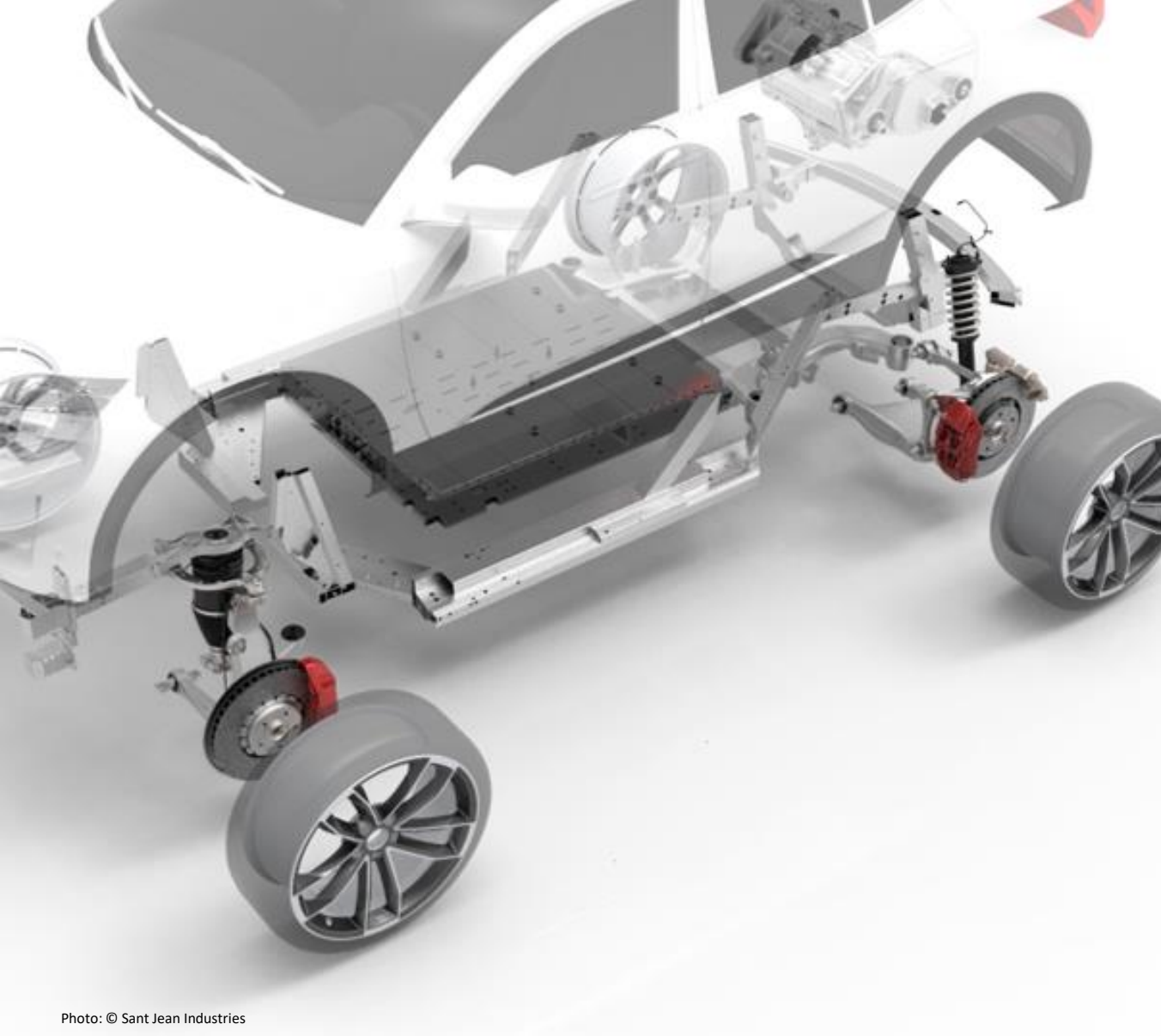


Photo: © Sant Jean Industries

## Case study: **Industrialisation consultancy**



### **Background**

Saint Jean Industries (SJI) is a global leading Tier 1 supplier with a growing presence in the electric vehicle market. They are currently expanding their vehicle portfolio, which is aimed at the electrified commercial vehicle market.

### **Our approach**

Using Ricardo's skillsets, we have provided comprehensive industrial engineering support to SJI for their new battery enclosure, ready to go to market.

### **Client benefit**

The combination of SJI's world-class automotive expertise, combined with Performance Products' continually growing knowledge in the battery space, has provided a unique solution for this rapidly emerging market.





Creating a world  
fit for the future



## Appendix

# Underlying and total Group

Year ended 30 June

£m	2021			2020			Year-on-Year growth	
	Underlying	Specific adjusting items <sup>(1)</sup>	Total	Underlying	Specific adjusting items <sup>(1)</sup>	Total	Underlying	Total
Revenue	351.8	-	351.8	352.0	-	352.0	0%	0%
Gross profit	117.7	-	117.7	115.1	-	115.1	2%	2%
Administration costs	(95.0)	(14.1)	(109.1)	(95.1)	(20.9)	(116.0)	0%	(6)%
Operating profit/(loss)	22.7	(14.1)	8.6	20.0	(20.9)	(0.9)	14%	n/a <sup>(2)</sup>
Net finance costs	(4.7)	-	(4.7)	(4.4)	-	(4.4)	7%	7%
Profit/(loss) before tax	18.0	(14.1)	3.9	15.6	(20.9)	(5.3)	15%	n/a <sup>(2)</sup>
Taxation charge	(4.8)	2.6	(2.2)	(4.1)	3.0	(1.1)	17%	100%
Profit/(loss) for the period	13.2	(11.5)	1.7	11.5	(17.9)	(6.4)	15%	n/a <sup>(2)</sup>

(1) Specific adjusting items comprise amortisation of acquired intangible assets, acquisition-related expenditure, reorganisation costs and non-recurring items.

(2) Year on year growth percentage not possible as prior year results were a loss for the year.

# Specific adjusting items



Year ended 30 June

£m	Income statement		Cash flow	
	2021	2020	2021	2020
Amortisation of acquisition-related intangible assets	(5.0)	(6.0)	-	-
Acquisition-related expenditure	(2.1)	(3.0)	(5.7)	(5.1)
Reorganisation costs – Purchases and disposals	(2.0)	(5.7)	0.2	(11.4)
Other reorganisation costs	(3.4)	(6.2)	(3.4)	(4.4)
CEO exit costs	(1.5)	-	(0.2)	-
Guaranteed minimum pensions ('GMPs') equalisation	(0.1)	-	-	-
<b>Total before tax</b>	<b>(14.1)</b>	<b>(20.9)</b>	<b>(9.1)</b>	<b>(20.9)</b>
Tax credit on specific adjusting items	2.6	3.3		
Tax charge on prior year specific adjusting items	-	(0.3)		
<b>Total after tax</b>	<b>(11.5)</b>	<b>(17.9)</b>		

# Balance sheet summary



30 June

£m	2021	2020
Tangible non-current assets	46.9	45.4
Intangible non-current assets	118.6	127.7
Right of use assets	19.5	23.9
Inventories, trade and other receivables	146.1	138.9
Assets held for sale	-	5.3
Net debt	(46.9)	(73.4)
Trade and other payables	(76.6)	(75.6)
Lease liability	(24.3)	(29.3)
Pension surplus/(deficit)	6.8	(6.7)
Other <sup>(1)</sup>	(7.3)	(7.1)
<b>Net assets</b>	<b>182.8</b>	<b>149.1</b>

(1) Other includes provisions, deferred and current tax and derivative financial assets and liabilities.

## Revenue by half-year

### Revenue earned

£m	H1 FY19/20	H2 FY19/20	H1 FY20/21	H2 FY20/21
Automotive & Industrial	65.9	51.3	<b>50.1</b>	<b>52.4</b>
Performance Products	46.9	29.0	<b>35.6</b>	<b>41.0</b>
<b>Auto Related</b>	<b>112.8</b>	<b>80.3</b>	<b>85.7</b>	<b>93.4</b>
Energy & Environment	23.6	27.2	<b>26.6</b>	<b>30.5</b>
Rail	38.9	36.4	<b>38.5</b>	<b>39.2</b>
Defense	17.6	15.2	<b>13.9</b>	<b>24.0</b>
<b>Non-Auto Related</b>	<b>80.1</b>	<b>78.8</b>	<b>79.0</b>	<b>93.7</b>
<b>Total</b>	<b>192.9</b>	<b>159.1</b>	<b>164.7</b>	<b>187.1</b>

## Underlying operating profit and margin by half-year

£m	Underlying operating profit <sup>(1)</sup>				Underlying operating profit <sup>(1)</sup> margin			
	H1 FY19/20	H2 FY19/20	H1 FY20/21	H2 FY20/21	H1 FY19/20	H2 FY19/20	H1 FY20/21	H2 FY20/21
Automotive & Industrial	6.0	(5.5)	<b>(3.4)</b>	<b>1.8</b>	9.1%	(10.7)%	<b>(6.8)%</b>	<b>3.4%</b>
Performance Products	4.7	0.4	<b>3.9</b>	<b>2.9</b>	10.0%	1.4%	<b>11.0%</b>	<b>7.1%</b>
<b>Auto Related</b>	10.7	(5.1)	<b>0.5</b>	<b>4.7</b>	9.5%	(6.4)%	<b>0.6%</b>	<b>5.0%</b>
Energy & Environment	3.0	3.3	<b>3.8</b>	<b>4.7</b>	12.7%	12.1%	<b>14.3%</b>	<b>15.4%</b>
Rail	2.7	3.1	<b>3.5</b>	<b>4.5</b>	6.9%	8.5%	<b>9.1%</b>	<b>11.5%</b>
Defense	2.9	2.2	<b>1.7</b>	<b>3.7</b>	16.5%	14.5%	<b>12.2%</b>	<b>15.4%</b>
<b>Non-Auto Related</b>	8.6	8.6	<b>9.0</b>	<b>12.9</b>	10.7%	10.9%	<b>11.4%</b>	<b>13.8%</b>
Plc Costs	(1.3)	(1.5)	<b>(2.1)</b>	<b>(2.3)</b>				
<b>Total</b>	18.0	2.0	<b>7.4</b>	<b>15.3</b>	9.3%	1.3%	<b>4.5%</b>	<b>8.2%</b>

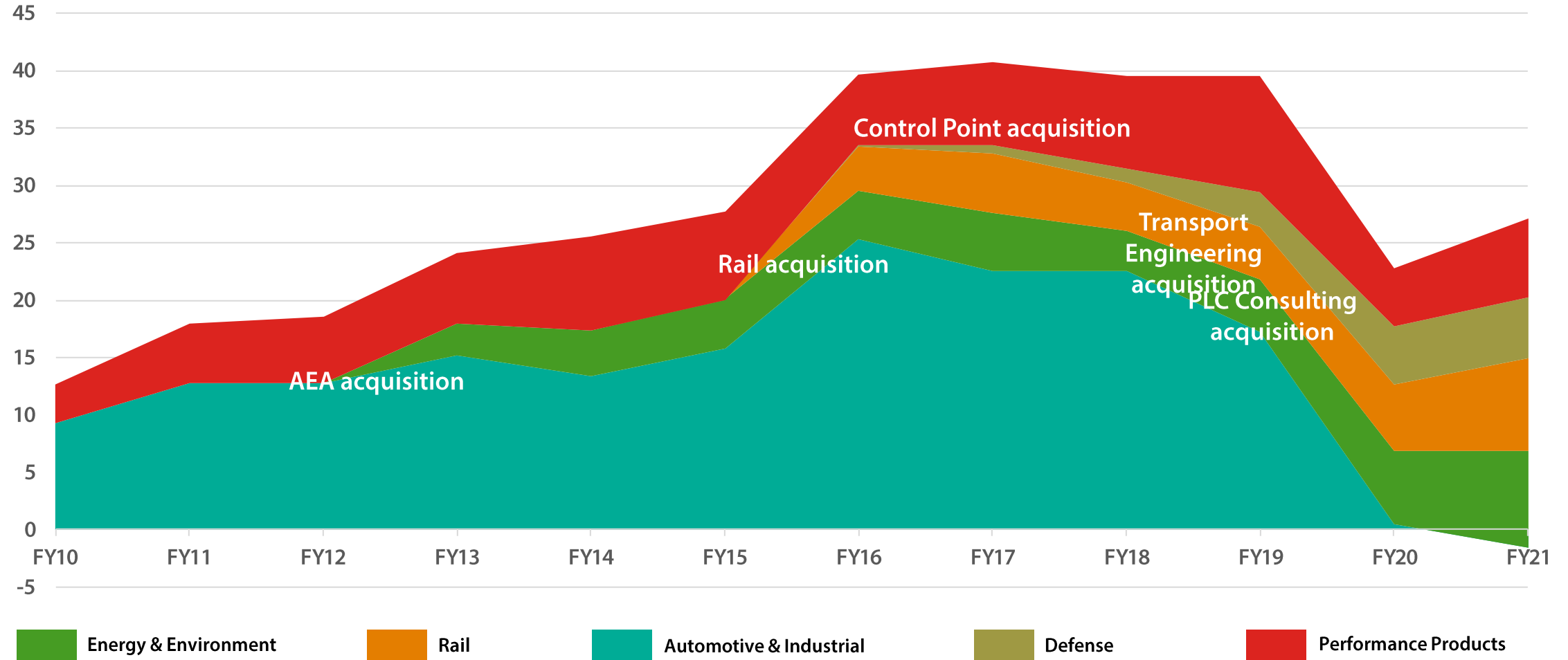
(1) Excluding specific adjusting items, which comprise amortisation of acquired intangible assets, acquisition-related expenditure, reorganisation costs and non-recurring items.

Strategic objectives:



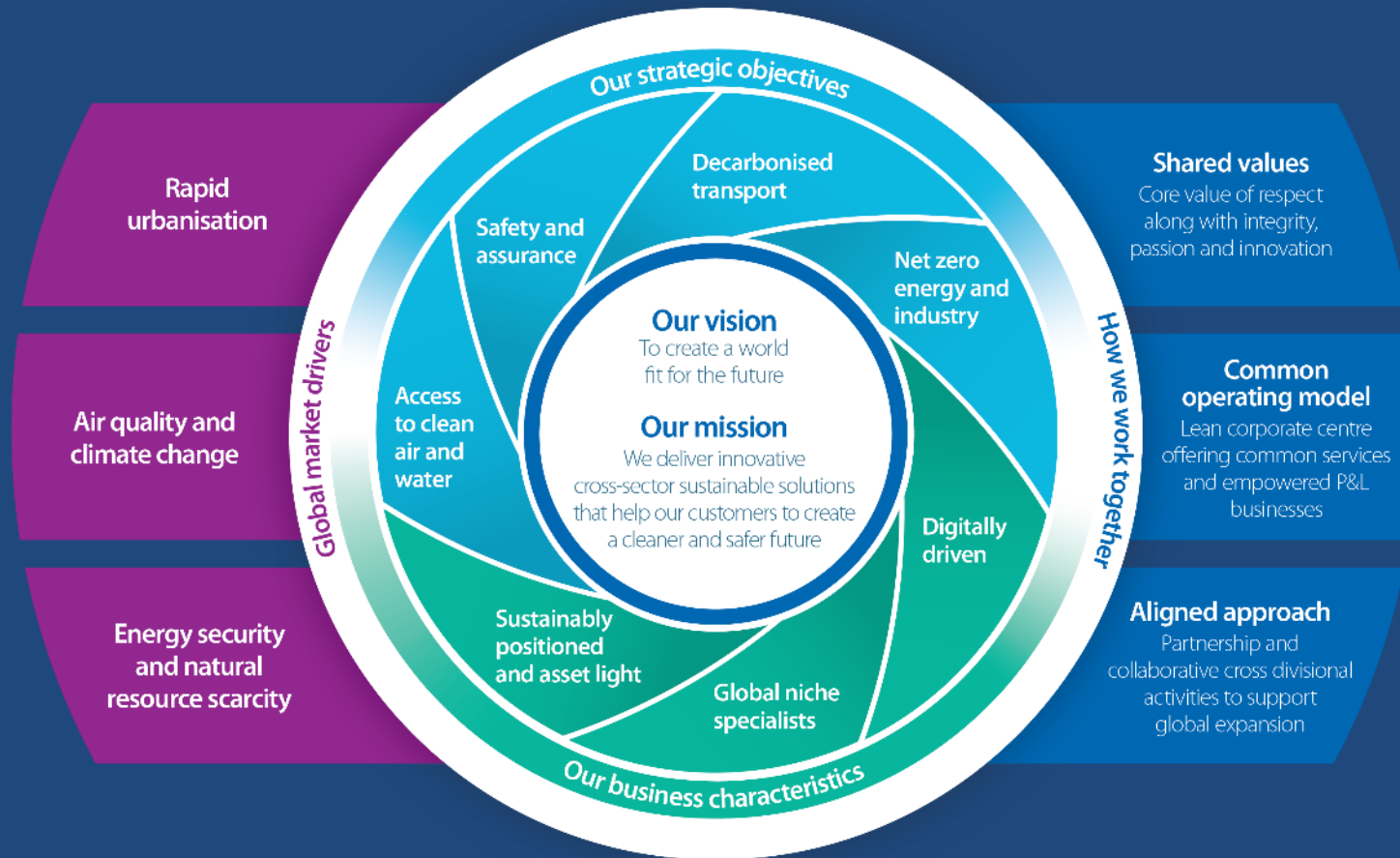
# Creating resilience in the business

£m Operating profit by segment FY10 to FY21



Delivering according to our strategy:

# Return to growth through innovation and relentless execution



Meeting the challenges within the markets of Transport & Security, Energy, and Scarce Natural Resources & Waste



# Rooted to long-term trends and sustainable innovation

## Global growth drivers

Ricardo is in a unique position where we can harness our expertise to support the global shifts that are changing the way we live and do business.



## Technology innovation

We shape the markets in which we operate through the delivery of solutions that are built on technological innovation that is sustainable.

### Net Zero and beyond

Solutions to address environment challenges

### Decarbonised technologies

Focus on electrification and hydrogen innovation

### Digitalisation

Leverage digital technologies for our clients and teams

Creating a world fit for the future

# Strategic direction: Making further significant progress



## Strategic priorities:

Future investment priority on Decarbonisation/Net Zero from policy to engineering solutions in the transport and energy market sectors

Further extend into clean energy solutions with a focus on electrification and hydrogen whilst continuing to support transition from fossil fuel-based ICE

Strengthen our global market position by leveraging our key differentiator around the intersection of transport, energy and environment



## Strategic action plan:

Organic

- Footprint expansion specifically focussed on North America and Asia territories
- Cross business collaboration
- Strengthened client partnerships

Inorganic

- Disciplined M&A with funding through:
  - Monetisation of existing assets
  - Debt facilities

# Continue to improve our ESG positioning

## Net Zero 2030

On target with our Net Zero 2030 strategy. We have increased our use of renewable energy from 74 to 91% this year. Property downsizing has reduced our energy footprint. We have committed to Science Based Targets and are awaiting validation of these targets.

## Positive contribution to our customers

75% of our revenue is driven by climate change or the environment, to some degree.

## Continuous improvement

We are putting increased focus on our supply chain from both an environmental and social perspective. 96% of our people are covered by our environmental management system (ISO 14001). We reported only one reportable accident within the year.



# Our mission contributes to 8 of the 17 UN sustainable development goals and are well aligned with developing ESG aspirations

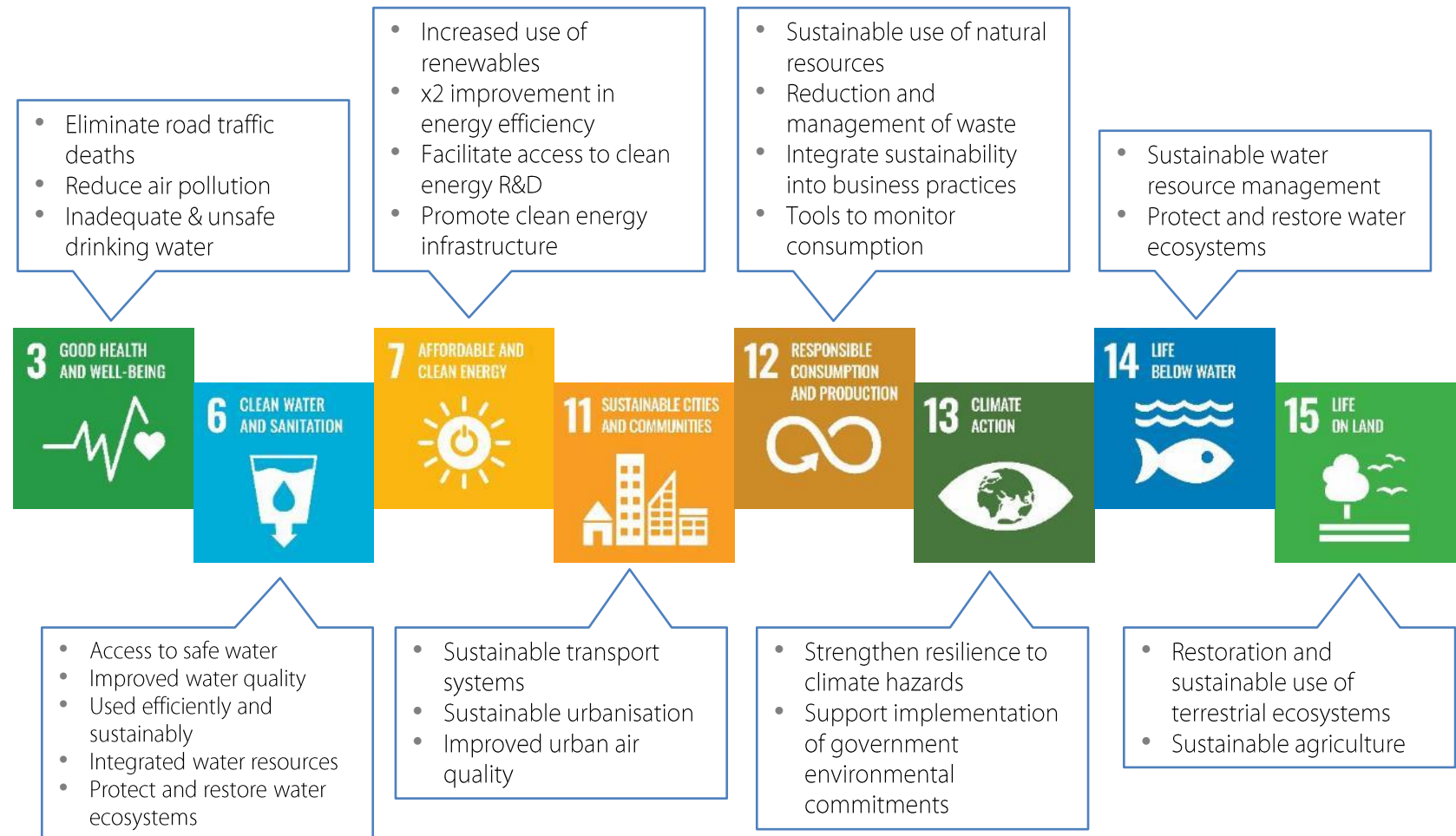


## Vision:

To create a world fit for the future

## Mission:

We deliver innovative cross-sector sustainable solutions that help our customers to create a cleaner and safer future



# Order intake relating to electric or hybrid vehicles was £28m or 17% of Auto-related order intake (£38m or 19% in FY19/20)

