

Creating a world
fit for the future



Ricardo plc Preliminary Results Presentation

Year ended 30 June 2020
Presented September 2020

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

Highlights

Financial Overview

Strategy & Market Overview

Operating Segments

Highlights (1 of 2)

for the year ended 30 June 2020



- Good performance in H1 with COVID-19 impacting performance in H2
- Energy & Environment, Defense and Rail all delivered an increase in profits on the prior year
- Automotive-related businesses were significantly impacted with lower profits than prior year
- We experienced a delay in some orders being placed and some challenges in the delivery of projects due to Ricardo and customers working remotely, leading to reduced levels of efficiency and lower margins
- Automotive-related businesses restructured to provide lower cost base (c£10m p.a.) and realign it to anticipated demand
- Disposal of DTC test business and exit from Santa Clara in line with agile and asset-lite strategy



Order intake £369m -4%	Order book £314m +£0m	Underlying PBT £15.6m -58%
2018/19: £386m	2018/19: £314m	2018/19: £37.0m



Highlights (2 of 2)

for the year ended 30 June 2020



- Acquired businesses in Australia integrated and performing well
- Good cash performance with positive working capital for the year – net debt was flat for the COVID-19 impacted H2
- Cash resources increased by £50m and liquidity of £143m at 30 June 2020
- Majority of offices and all assembly lines now open and operational following significant disruption during H2
- Interim dividend of 6.24p paid in April 2020 – no final dividend proposed



Underlying operating cash conversion

102%
+27ppts

2018/19: 75%

Net debt

£(73)m
+£1m in H2

2019/20 H1: £(74)m

“We enter the new financial year with a good order book and we secured over £70m of new orders in July and August 2020. We have an agile business which has proven its resilience in a highly uncertain environment. We continue to see good opportunities for Ricardo in the markets that we serve, and through the execution of our strategy we are well positioned to continue to grow our Group as a sustainable business which delivers value for all of our stakeholders.”

Agenda



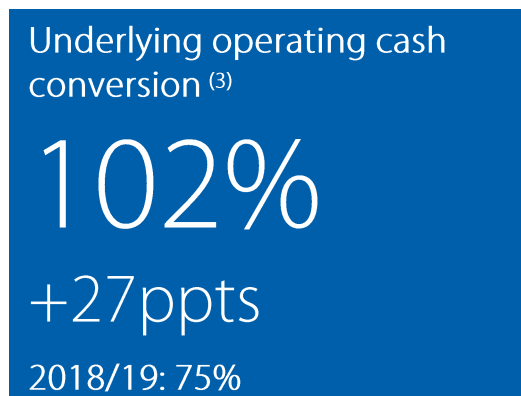
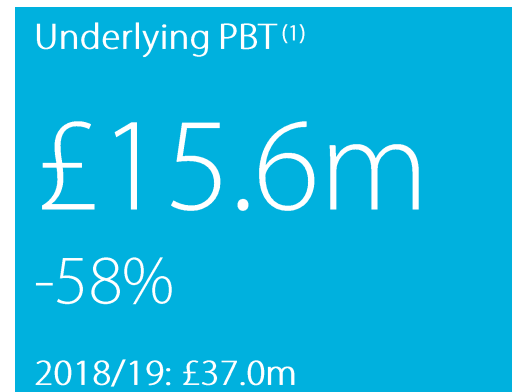
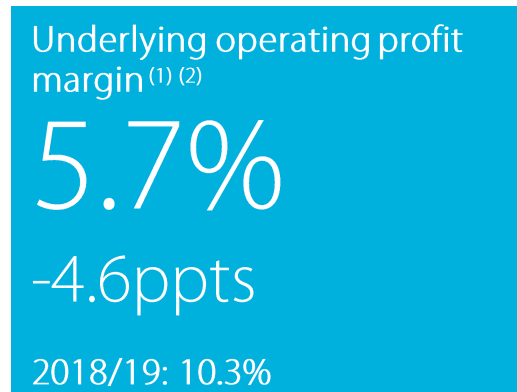
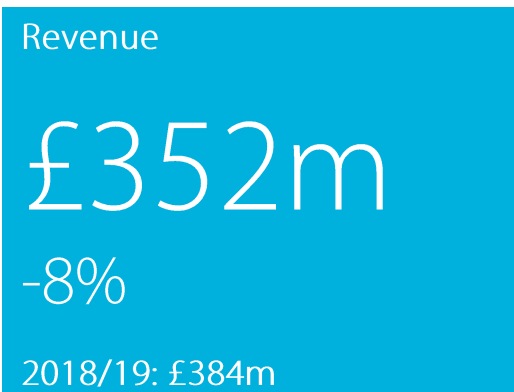
Highlights

Financial Overview

Strategy & Market Overview

Operating Segments

Key indicators



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

(2) Current year includes the impact of IFRS 16, excluding this underlying operating profit margin would be 5.4%.

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

Income statement



£m	Year ended 30 June		Year-on-Year Movement
	2020 Underlying ⁽¹⁾	2019 Underlying ⁽¹⁾	% change
Revenue	352.0	384.4	(8)%
Gross profit	115.1	134.9	(15)%
Administration costs	(95.1)	(95.3)	-
Operating profit ⁽²⁾	20.0	39.6	(49)%
Net finance costs ⁽²⁾	(4.4)	(2.6)	69%
Profit before tax	15.6	37.0	(58)%
Taxation charge	(4.1)	(8.2)	(50)%
Profit for the period	11.5	28.8	(60)%

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

(2) Current year includes the impact of IFRS 16, excluding this underlying operating profit would be £19.1m and net finance costs would be £(3.3)m.

A full income statement including specific adjusting items is included in the Appendix.

Segmental results

Year ended 30 June

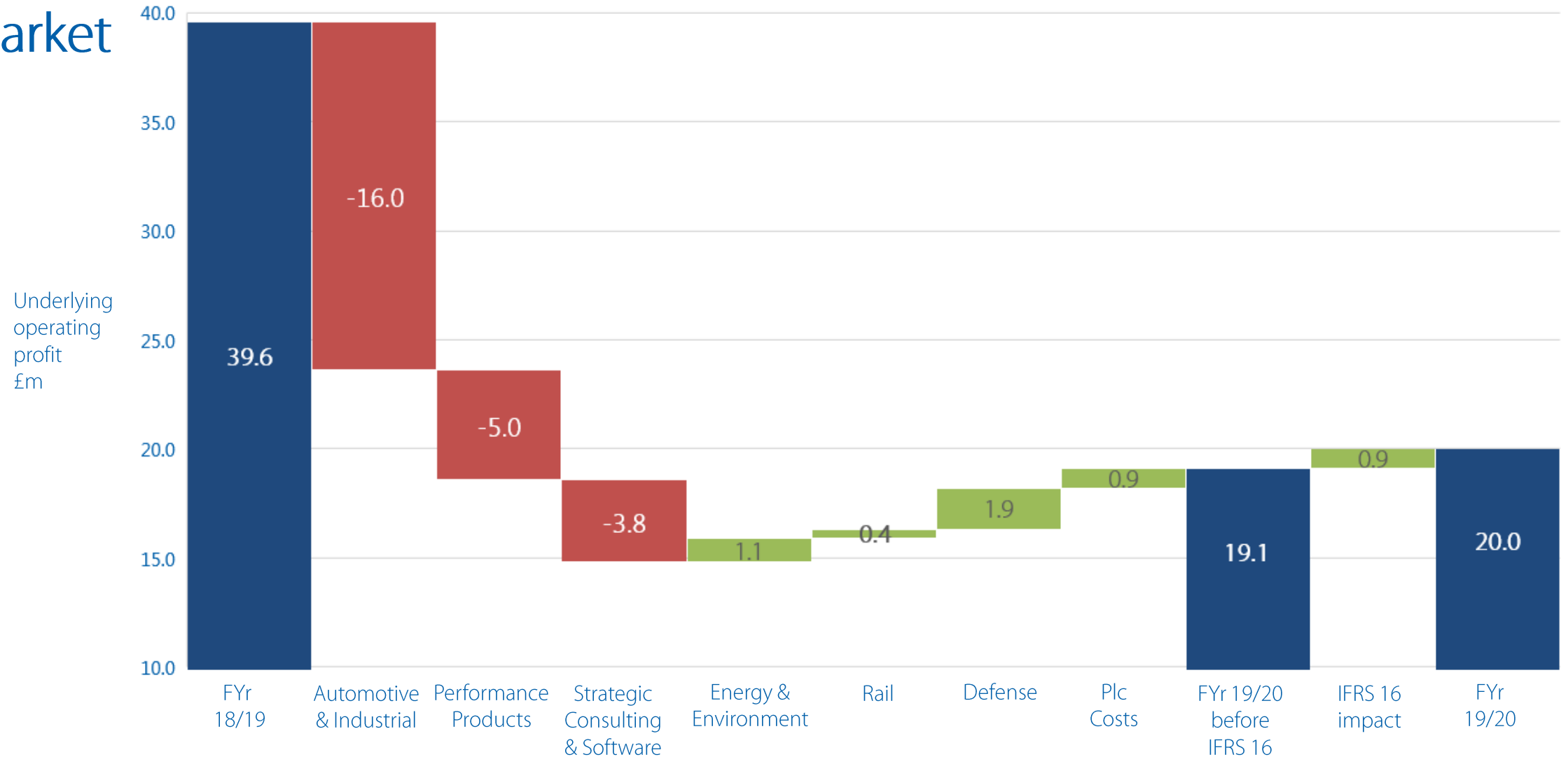


£m	Revenue earned		Underlying operating profit ⁽¹⁾		Underlying operating profit ⁽¹⁾ margin	
	2020	2019	2020	2019	2020	2019
Automotive & Industrial	105.9	129.3	0.1	16.1	0.1%	12.5%
Performance Products	69.0	95.4	4.9	9.9	7.1%	10.4%
Strategic Consulting & Software	18.2	22.5	0.1	3.9	0.5%	17.3%
Auto Related	193.1	247.2	5.1	29.9	2.6%	12.1%
Energy & Environment	50.8	44.6	6.1	5.0	12.0%	11.2%
Rail	75.3	67.4	5.6	5.2	7.4%	7.7%
Defense	32.8	25.2	5.1	3.2	15.5%	12.7%
Non-Auto Related	158.9	137.2	16.8	13.4	10.6%	9.8%
Plc Costs			(2.8)	(3.7)		
Total before IFRS 16	352.0	384.4	19.1	39.6	5.4%	10.3%
Impact of IFRS 16 ⁽²⁾			0.9			
Total	352.0	384.4	20.0	39.6	5.7%	10.3%

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

(2) Segmental results for 2020 incorporating the impact of IFRS 16 are included in the Appendix.

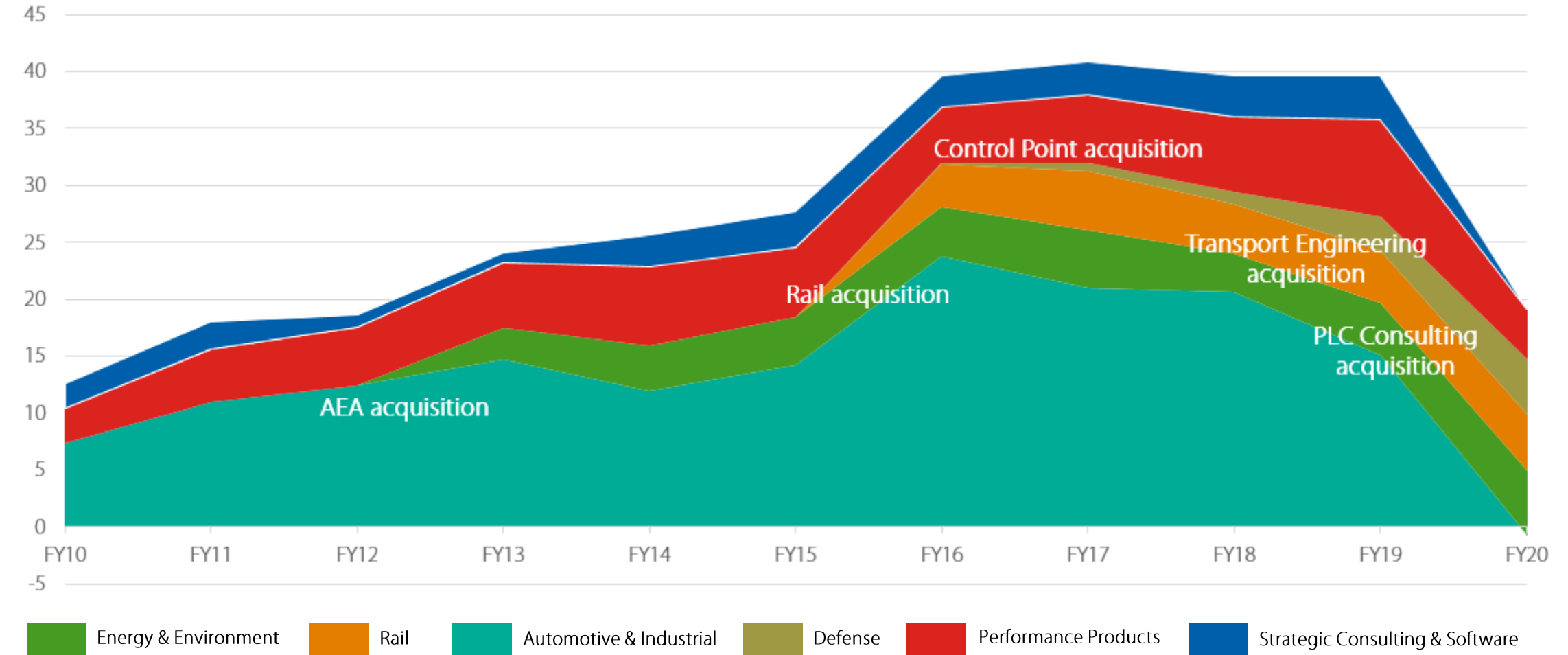
Good performance in E&E and Defense, together with acquisitions, have been offset by COVID-19 impact on a weak global Automotive market



Strategic Objectives: Creating resilience in the business



£m Operating profit by division FY10 to FY20



Cash flow

Year ended
30 June



£m	2020	2019
EBITDA	37.6	51.0
Share based payments, Fair value gains & losses on derivatives, Profit on disposal	0.9	(0.5)
Working capital decrease/(increase)	4.5	(7.8)
Pension charge and funding	(4.6)	(4.3)
Cash from operations	38.4	38.4
Cash conversion %	102%	75%
Net finance costs	(4.2)	(2.3)
Tax paid	(5.3)	(4.9)
Capital expenditure	(17.0)	(16.0)
Principal element of lease payments	(5.4)	-
Dividends	(11.6)	(11.0)
Purchase of own shares, Cash flow hedges, FX	-	(0.6)
Movement in net debt before acq'n & restructuring related costs	(5.1)	3.6
Acquisition and restructuring related costs	(20.9)	(24.9)
Movement in net debt ⁽¹⁾	(26.0)	(21.3)
Opening Net Debt	(47.4)	(26.1)
Closing Net Debt	(73.4)	(47.4)

(1) Cash outflow net of movement in borrowings.

Agenda



Highlights

Financial Overview

Strategy & Market Overview

Operating Segments

Our ambition is to create a world fit for the future,

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



Our strategy is for growth and risk mitigation, with no dependency on any single geography, sector or client

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

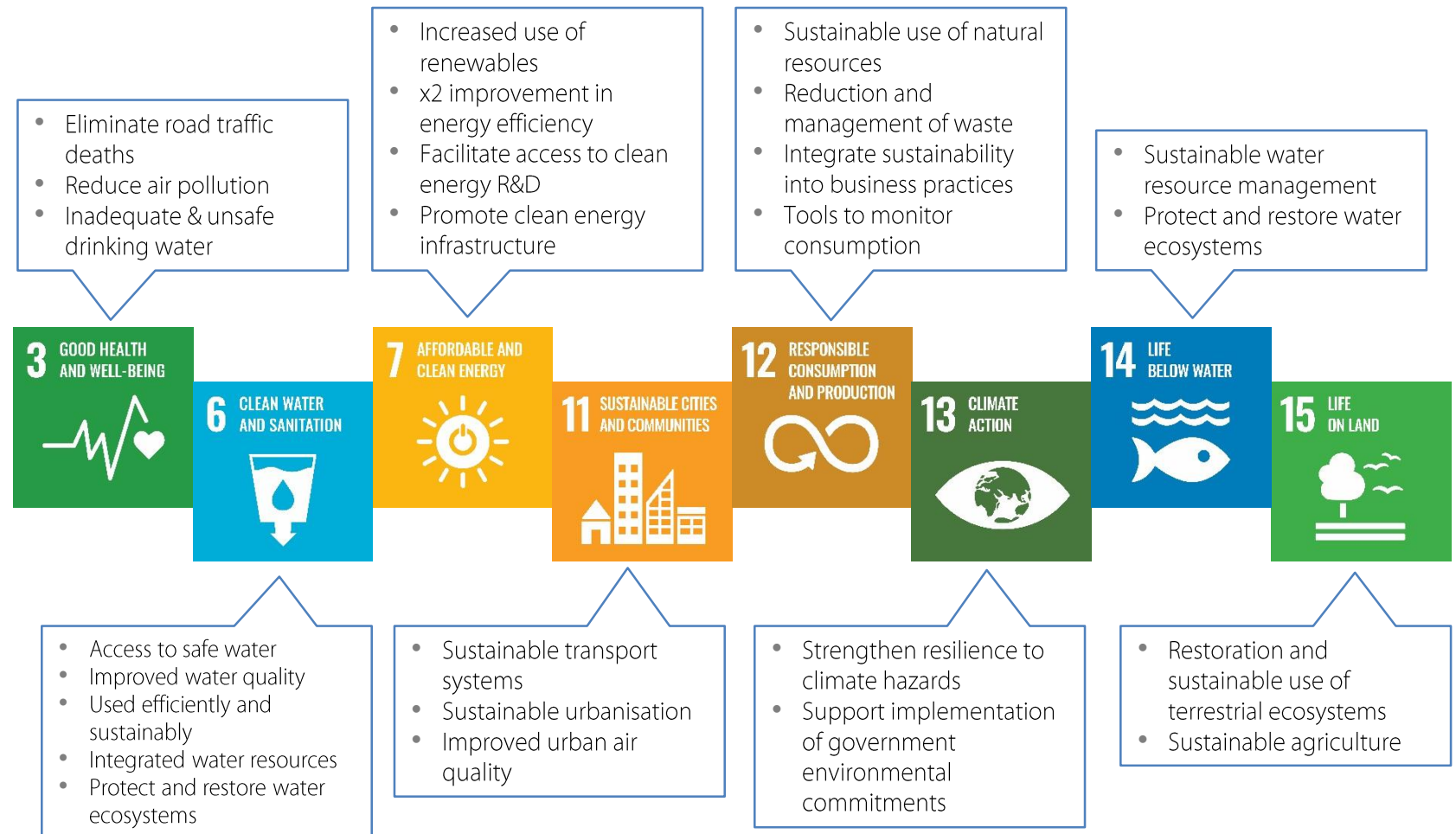


Vision:

Creating a world fit for the future

Mission:

We create and deliver innovative cross-sector sustainable, efficient and secure energy, environmental and mobility solutions



Environmental Social Governance (ESG)

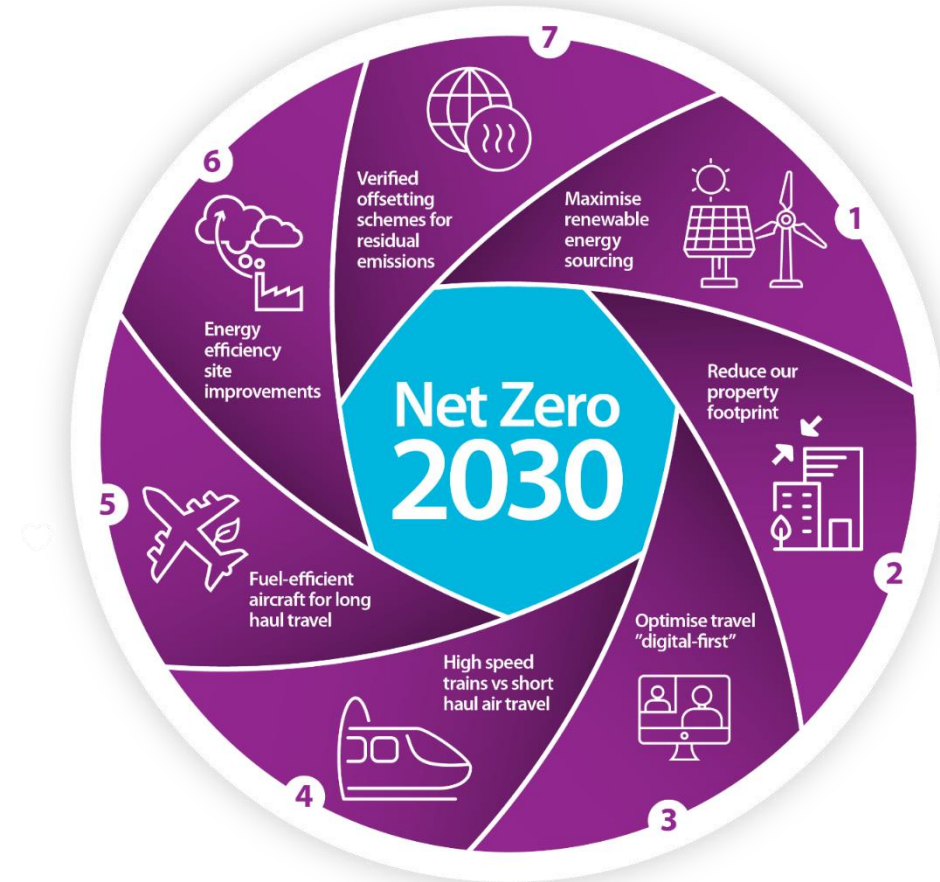


- The environment is at the heart of our strategy and is embedded in both **what we do** and the **solutions we deliver**. Our commitments communicated in January 2020 have all been actioned:
 - ✓ Defining targets for operational decarbonization;
 - ✓ Independently assuring emissions reporting
 - Our GHG emissions for FY2019/20 have been verified by Lloyds Register
 - Reporting on electricity sourcing from renewable sources

- ESG is now a key section of our Report and Accounts, including climate change, Corporate Responsibility and Sustainability and increased disclosures

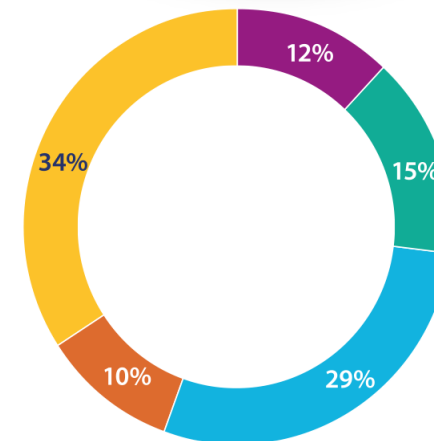
- FTSE4Good retained

	2019/20	2018/19	2017/18
Electricity consumed (all sources) MWh	17,455	20,395	24,113
Percentage of renewable electricity	74%	71%	67%



Climate change and environmental revenue contribution

- Driven by climate change
- Driven by an environmental issue
- Has environmental benefits
- Relates to safety
- None of the above



- Over 25% of our revenue is strongly driven by climate change or the environment
- Over 55% of our revenue is driven by climate change or the environment by some degree

Navigating a volatile market and economic backdrop

- Global Coronavirus pandemic
- CO₂ reduction and local urban emissions remain priorities - development and adoption of electrified transport and infrastructure
- Public and government action on environmental, plastic, water, waste & recycling agendas
- Investment in public transport and infrastructure to improve inter- and intra-urban mobility in developed and developing economies
- US defence spend at high levels - new technologies, life extension, and cyber protection
- Brexit trade deal uncertainty, very weak Automotive backdrop and recovering China economy



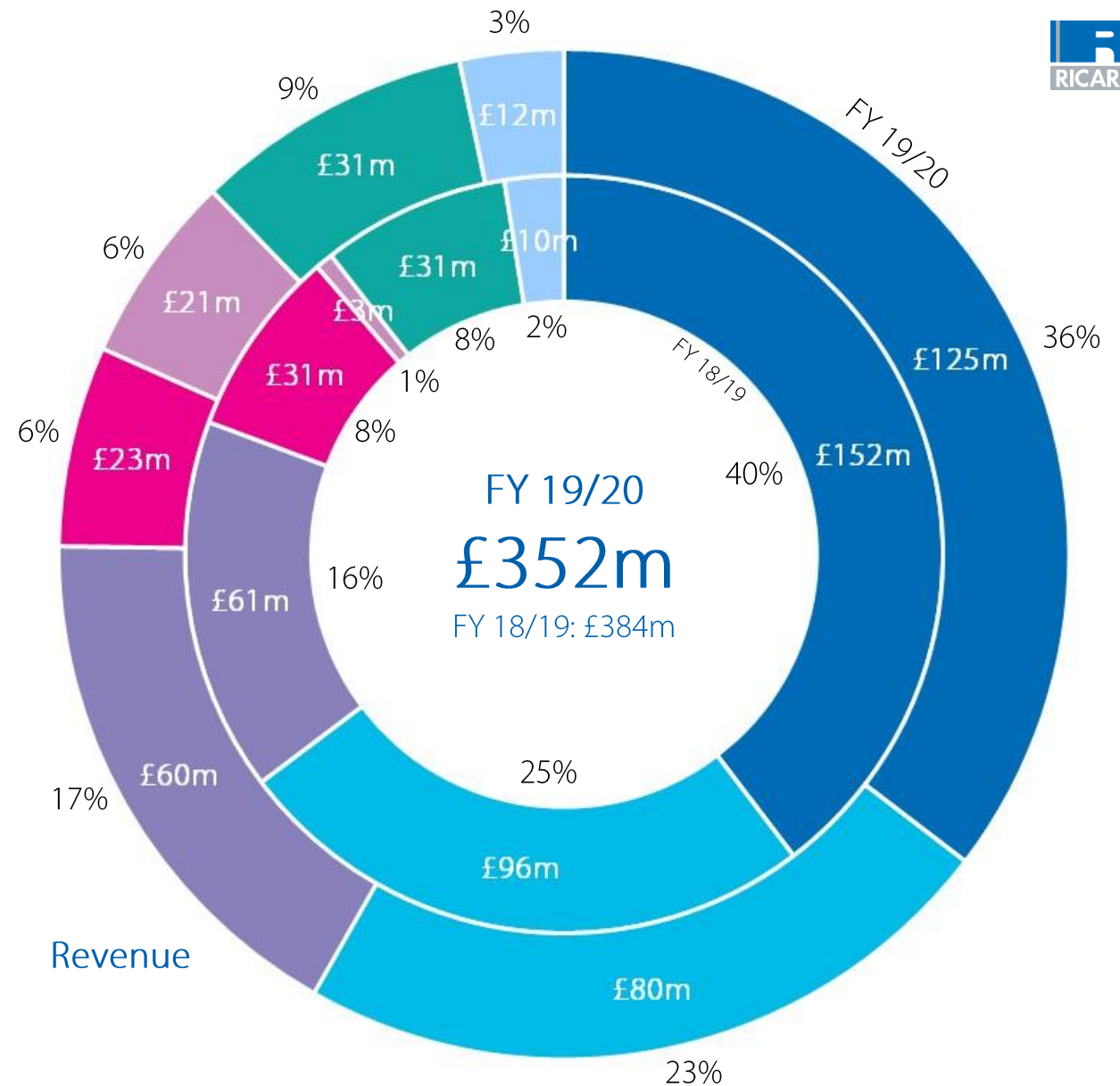
Our response to Coronavirus



A continued good balance of revenue from across the globe demonstrated by the expansion into Australia



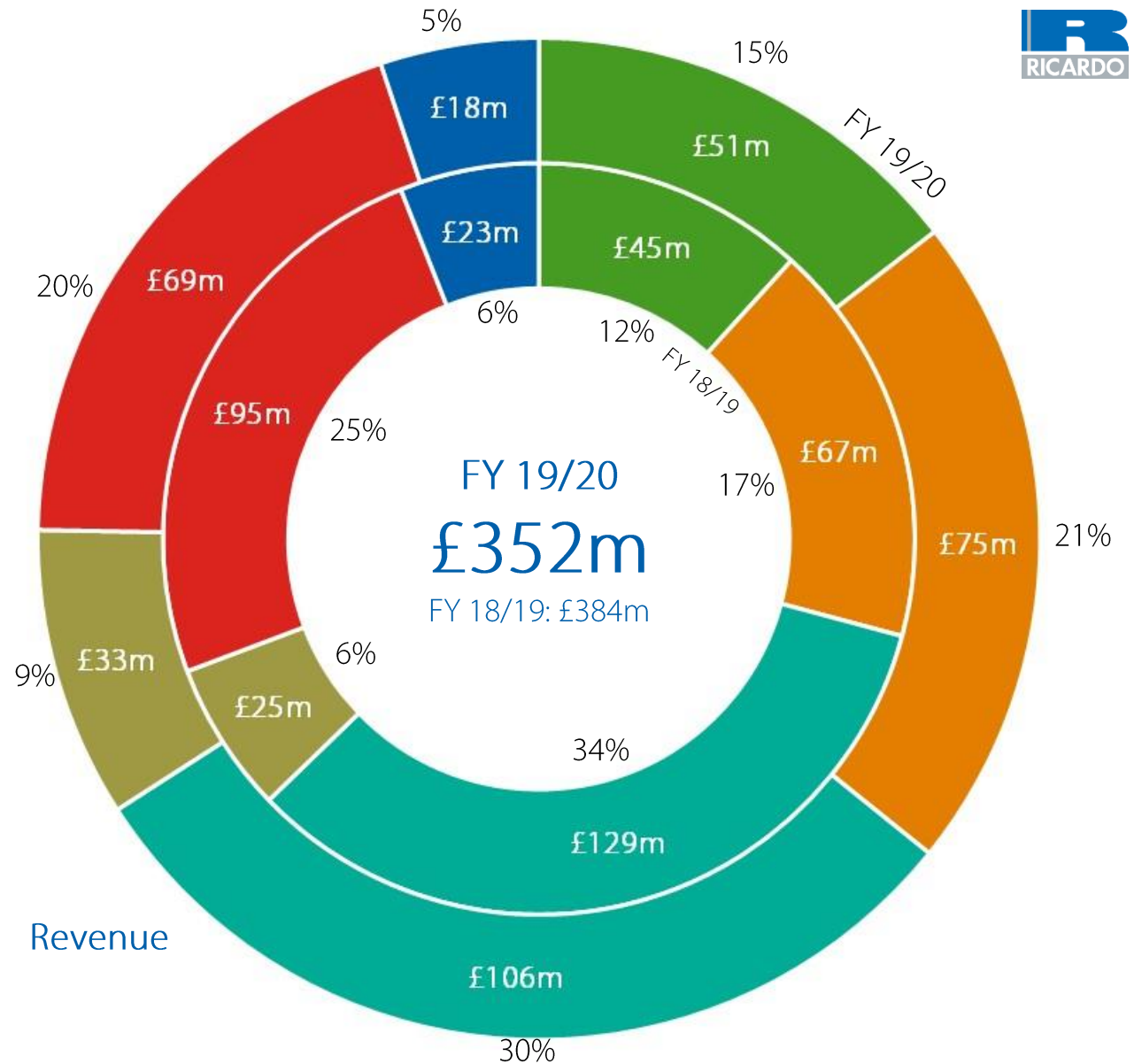
- UK
- Mainland Europe
- North America
- China
- Australia
- Rest of Asia
- Rest of the World



Well balanced revenue across our operating segments with strong performance from Defense and E&E, complemented by the acquisitions in Rail and E&E

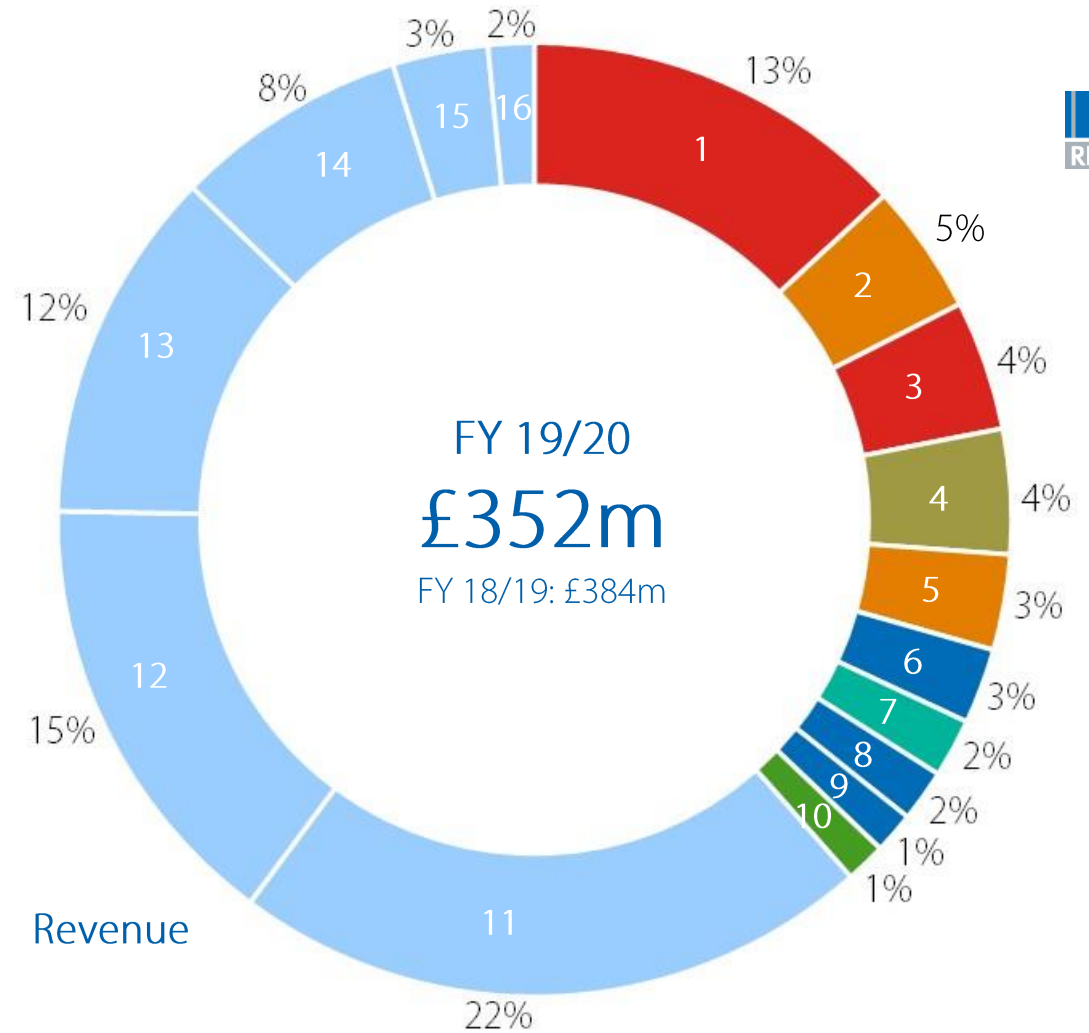
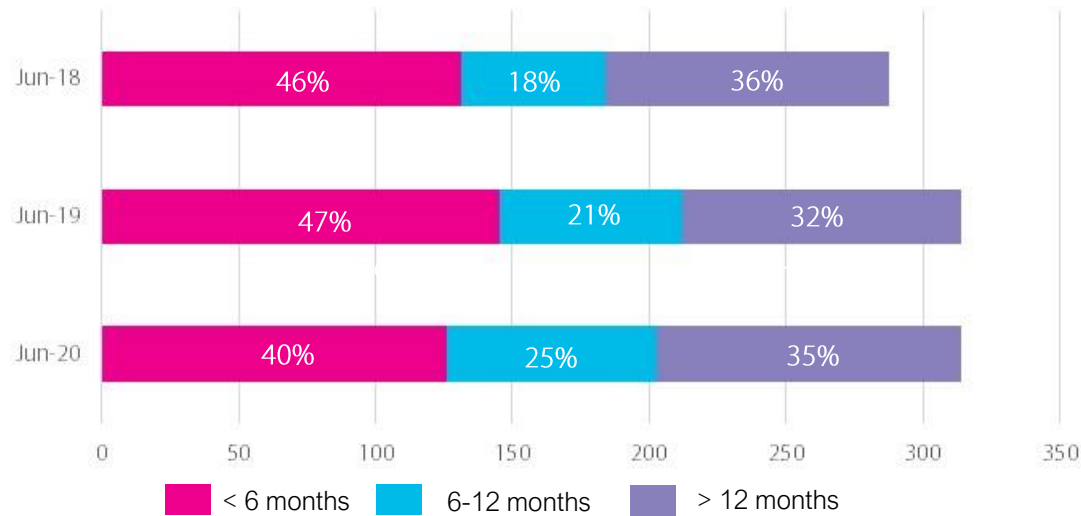


- Energy & Environment
- Rail
- Automotive & Industrial
- Defense
- Performance Products
- Strategic Consulting & Software



Diverse customer mix, with a good level of multi-year business. Our top 4 customers are spread across Performance Products, Rail & Defense

Order Book Profile



- 1. Key client 1
- 2. Key client 2
- 3. Key client 3
- 4. Key client 4
- 5. Key client 5
- 6. Key client 6
- 7. Key client 7
- 8. Key client 8
- 9. Key client 9
- 10. Key client 10
- 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

Agenda



Highlights

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Strategy & Market

Operating Segments

Energy & Environment

- A resilient performance despite COVID-19 disruption – overall growth in revenue and profit
- European Commission “Green Deal” is a strong ongoing market driver
- Robust progress in wider international markets, including Australia
- Air quality action remains a priority in the UK and globally, notably significant opportunities in the Middle East
- Water revenue is seeing a sharp increase as we move into a new Asset Management Planning cycle in the UK
- Data science is a new skill set, helping us to improve efficiency and innovation in the delivery of client assignments
- Order book for FY21 showing solid improvement on prior year

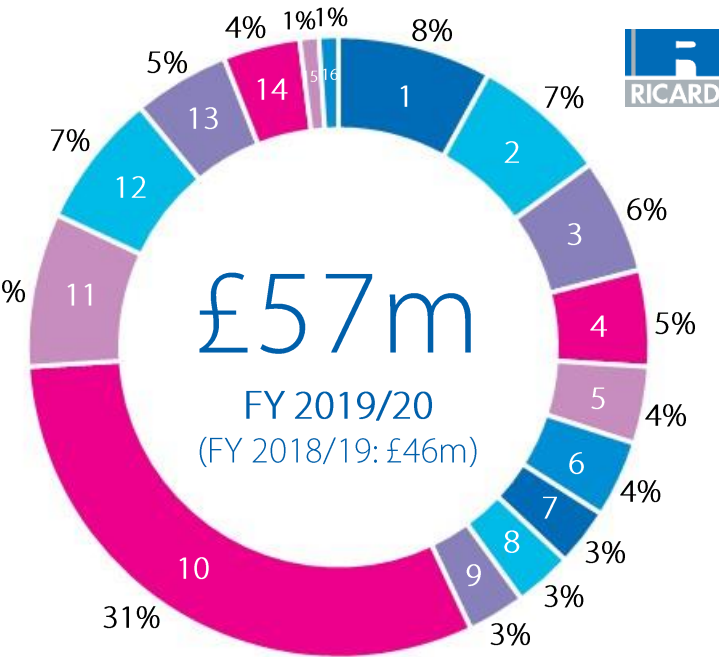
£m	Year ended 30 June	
	2020	2019
Revenue	50.8	44.6
Underlying operating profit ⁽¹⁾	6.1	5.0
Underlying operating profit margin ⁽¹⁾	12.0%	11.2%

(1) excludes the impact of IFRS 16



Order Intake

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



Order Book Profile



Over 1,000 live projects;
570 people

Case study

World first trial - connecting solar PV to a railway traction network

This project addressed decarbonisation of passenger rail transport by using locally connected renewable technology. A number of technical challenges existed to enable renewable generation to connect to railway lines on a stretch of track in Wales.

Ricardo investigated the requirements for connection of generation and storage to the traction network, and enabled the first incidence of renewable generation sources linking to a single phase traction network.





Case study

Decarbonisation in the shipping sector via synthetic electrofuels

The International Maritime Organisation has committed to halving its greenhouse gas emissions by 2050, but there is limited global infrastructure for alternative zero-carbon fuels, such as renewable ammonia and hydrogen.

Ricardo conducted studies to show that synthetic “electrofuels” produced with renewable electricity could be technically feasible for shipping, and provide viable zero-carbon options that could be scaled up globally.

Case study

Clean Air Action Plans for seven cities in Asia

In Asia the combined effect of indoor and outdoor air pollution causes about four million premature deaths every year.

The Asian Development Bank (ADB) is taking a lead in investing in air quality improvements throughout the region.

Ricardo, supporting ADB, is developing Clean Air Action Plans for seven major Asian cities; each plan addresses the unique air pollution challenges that the city faces, and includes full consideration of climate co-benefits, and the finance and investment actions necessary to support implementation.



Rail

- Australia acquisition delivered above expectations
- The Hong Kong riots impacted the local operation throughout the year
- Appointed as the Systems Engineering provider to the Korean Great Train eXpress new-build railway project
- Covid-19 had a dramatic effect upon the railways we serve with a 90% fall in passenger numbers. This affected order intake in the Western European teams in the last quarter of the year
- UK team was reduced in size and significantly re-organised to align with changing market needs

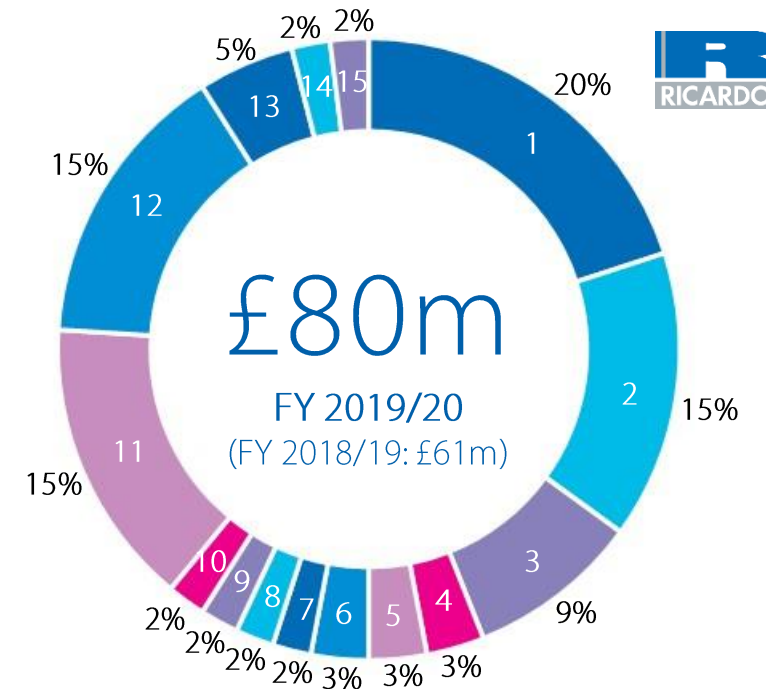
£m	Year ended 30 June	
	2020	2019
Revenue	75.3	67.4
Underlying operating profit ⁽¹⁾	5.6	5.2
Underlying operating profit margin ⁽¹⁾	7.4%	7.7%

(1) excludes the impact of IFRS 16



Order Intake

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



Order Book Profile



Over 900 live projects;
620 people

Case study

Seoul GTX railway Systems engineering for regional High Speed network

In January 2020 Ricardo's Seoul office were appointed to provide Systems Engineering support for the construction of GTX-A, the first line of South Korea's planned higher-speed commuter rail network for its capital city and surrounding commuter regions. The team will act as a technical 'hub' between financiers, suppliers and regulators ensuring seamless collaboration between parties and helping to deliver the project on time and to the highest possible standards of safety.





Case study



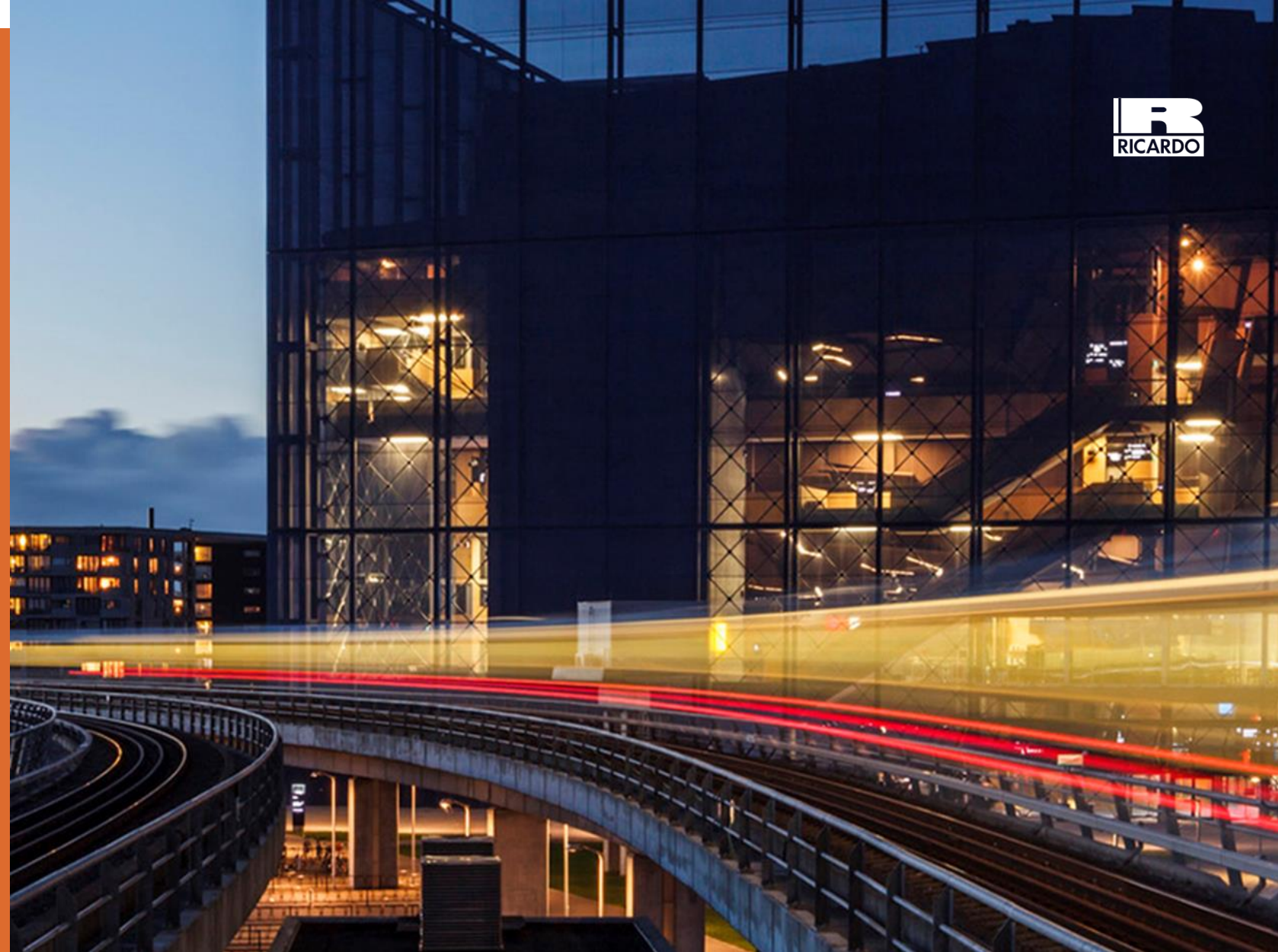
Network Rail Western and Wales route electrification Independent Assurance

In 2020 Ricardo Certification helped Network Rail meet its deadline to secure authorisations from the Office of Rail and Road to place into passenger service the final and most westerly section of the newly electrified route between London and Cardiff. The achievement is the result of almost seven years' work for our teams, during which they logged, processed and, where appropriate, assessed in excess of 10,000 reports, drawings, certificates or compliance arguments. The electrification of more than 200 miles of mainline railway was key to the £7bn upgrade..

Case study

Copenhagen S Train CBTC installation

Our teams provided Assessment Body, ISA and Notified Body services for the resignalling of Copenhagen's S-Train, a hybrid urban-suburban rail serving the Copenhagen urban area. The role was performed alongside a similar role supporting Denmark's national ERTMS programme. Our work spanned various aspects of the project, including onboard fitment, trackside fitment, programme level and railway activities, and establishment of the operating rules to control the new Communications-based train control (CBTC) signalling system.



Automotive & Industrial

- COVID-19 impacted H2 order intake, and significantly impacted revenue and operational efficiency as customers delayed non-critical projects
- Major restructuring in Europe and the US to right-size the cost base
- Sale of DTC Engine test facility and prototype operations, and subsequent partnership engagement with Excel Engineering completed
- Focused on digital engagement in lockdown, including a world first virtual vehicle certification whereby tests observed via secure live feed
- Supported CNH Industrial with the development of a biomethane-powered tractor

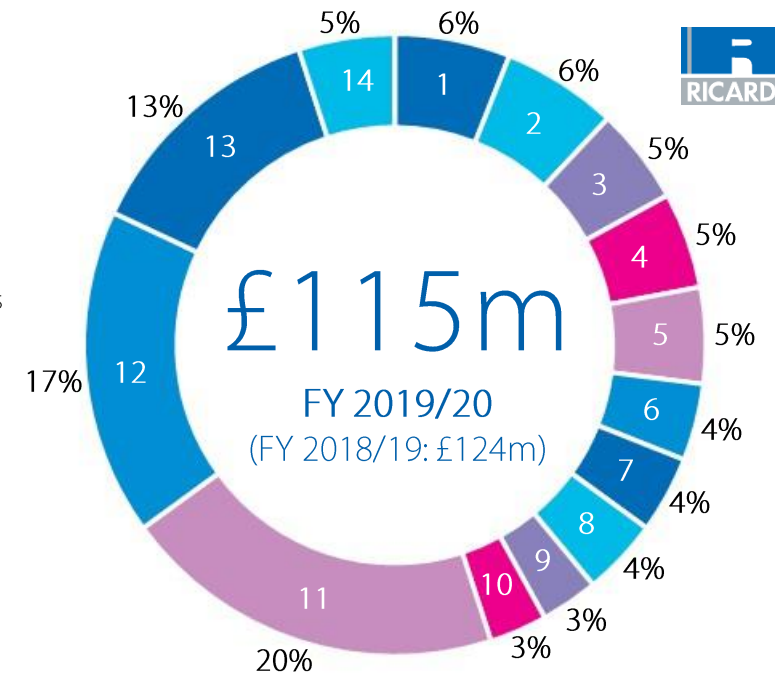
£m	Year ended 30 June	
	2020	2019
Revenue	105.9	129.3
Underlying operating profit ⁽¹⁾	0.1	16.1
Underlying operating profit margin ⁽¹⁾	0.1%	12.5%

(1) excludes the impact of IFRS 16



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

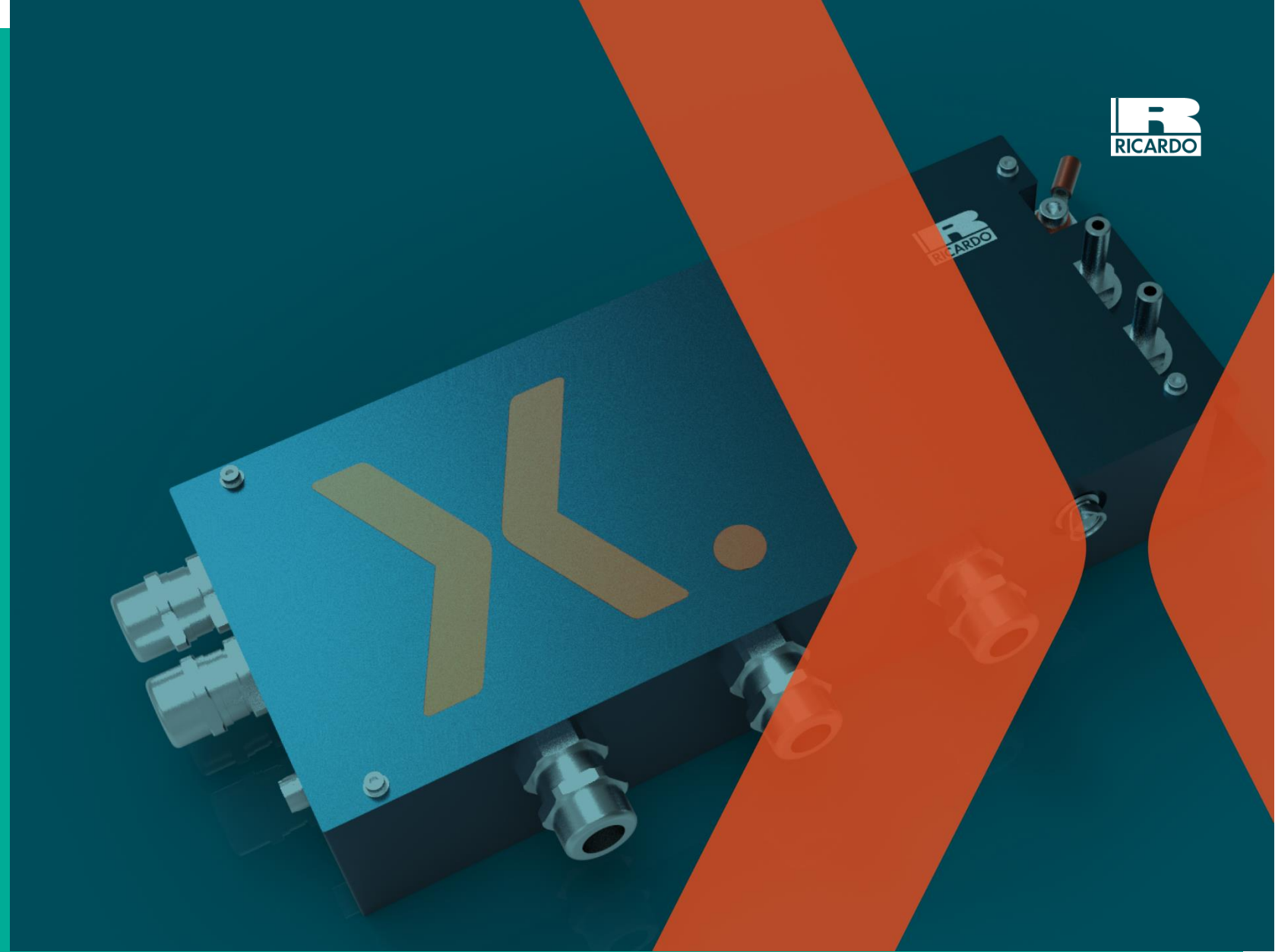


Over 400 live projects;
1,100 people

Case study

Nexperia partners with Ricardo to develop gallium nitride based EV inverter design

Ricardo has partnered with Nexperia to produce a technology demonstrator for a traction inverter based on gallium nitride (GaN) technology, enabling better vehicle performance and efficiency for both plug-in hybrids and battery electric vehicles. The technology aims to increase vehicle range and reduce the package size and weight of the inverter, which provides greater powertrain design flexibility and contributes to vehicle mass reduction. It will also offer automotive designers a proven, reliable device to provide the power density required for the electrification of the powertrain.





Case study



Ricardo delivers first virtual remote certification testing for marine engine

During the COVID-19 pandemic, Ricardo innovated to enable marine sector customer Bertel O. Steen Power Solutions to continue to check their product's compliance with upcoming international regulations to prevent air pollution from ships. Ricardo implemented a virtual certification test service which enabled the witnessing agent, customer and their sub-system supplier to observe tests and validate quality checks safely and remotely, removing the need for travel.

Case study

Ricardo launches new plug-in hybrid demo vehicle Connect-HEV

The Connect-HEV plug-in hybrid demonstrator vehicle showcases Ricardo capability in connected xEV technology solutions to improve consumer experience of hybrid and electric vehicles by extending range, improving vehicle efficiency, improving sound quality, and reducing vehicle cost.

Connect-HEV utilises Ricardo's own quality assured hybrid control strategies including advanced concepts that use connected vehicle data on the road and traffic conditions ahead to optimise energy use. Ricardo Realistic Augmented Sound technology provides desirable in-cabin sound quality whilst also protecting pedestrian safety in EV mode.



Defense

- 2,460 ABS kits delivered in the year
- Secured sole source position to provide ABS/ESC retrofit for the US Army's fleet of fielded HMMWVs
- Established a partnership with Red River Army Depot to provide systems integration and engineering for recapitalisation Army, Navy and Marine Corps vehicles
- Awarded lifecycle sustainment contract for the Army's new Infantry Squad Vehicle (ISV) in partnership with General Motors Defense
- Fielded data management software to the Navy's CANES fleet of ships and support of extended software deployment
- Provided consulting to Army Material Command to redefine the Condition Based Maintenance Program Implementation
- Order intake for Defense is below the prior year due to the profile and timing of the ABS/ESC order placement

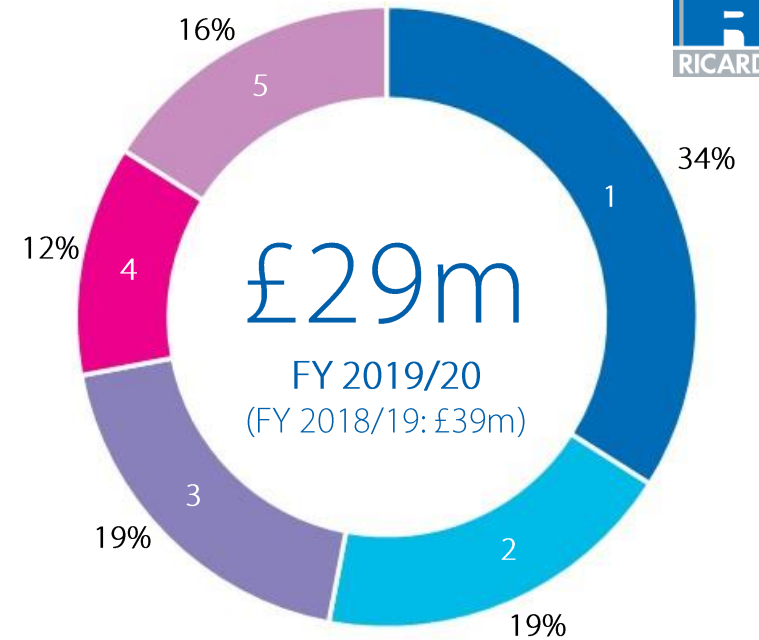
£m	Year ended 30 June	
	2020	2019
Revenue	32.8	25.2
Underlying operating profit ⁽¹⁾	5.1	3.2
Underlying operating profit margin ⁽¹⁾	15.5%	12.7%

(1) excludes the impact of IFRS 16

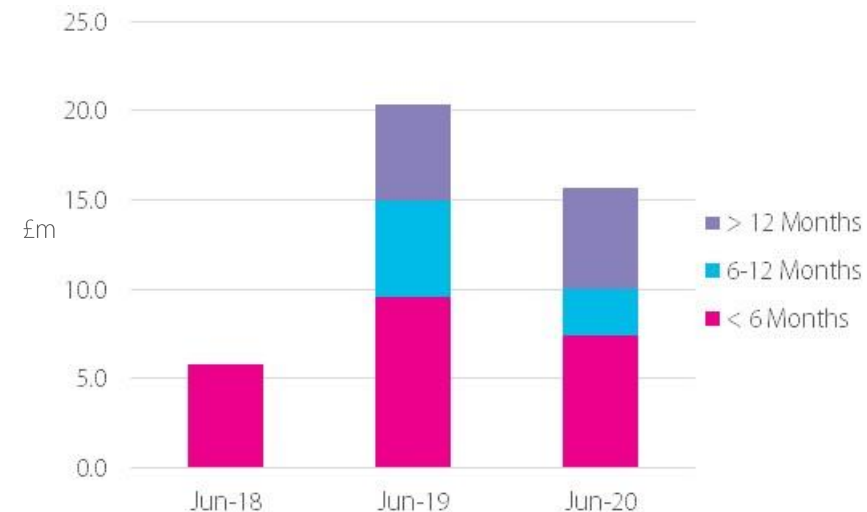


Order Intake

1-4. Top 4 clients
5. Other North America clients



Order Book Profile



Over 40 live projects;
160 people

Update on ABS retrofit programme

- [President's FY21 Defense budget](#) was published in February 2020 and in the public domain
- ABS/ESC retrofit installation to HMMWV fielded fleet included as part of “modification of in service equipment”
- Ricardo National Stock Number referenced
- The budget specifies the following in respect of FY21 (page 171):
 - Quantity 5,421
 - HMMWV ABS/ESC Retrofit kits \$71.7m
 - Installation \$22m
 - \$40m for HMMWV Ambulance upgrades including 871 ABS/ESC Retrofit kits
- The President’s Budget has been passed to House and Senate Defense Appropriations subcommittees for consideration, review and potential amendment prior to becoming law.

- By law, the FY21 Defense Budget is to be finalised and approved by 30 September 2020, unless a Continuing Resolution is enacted.



Case study

Integrating Complex Systems

To improve mounted and dismounted operations with the US Army's Stryker vehicles, Ricardo Defense is executing a project to integrate, test and support fielding of a wireless intercom system on its fleet of vehicles. Although a number of wireless systems already exist, selection and integration of the capability require a system integrator that understands the design of the many configurations of the vehicle, their use on the battlefield, cybersecurity issues for a wireless solution and the vehicles production and sustainment plans. The project is now entering into a test and evaluation phase as prototype systems will be installed, users trained and an evaluation of the capability will be completed.



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



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



Case study

Securing Data

Following years of development, the Abrams SEPv3 Main Battle Tank has integrated a vehicle health management system (VHMS) that will capture condition-based maintenance (CBM) data. This data will be used by maintainers and logisticians to improve readiness of the vehicle. A secure data transfer mechanism is needed in order to offload the data from the vehicle for analysis. Ricardo Defense, using the fielded Maintenance Service Device (MSD), has developed a secure software operating environment so that when the MSD is connected to the Abrams, a secure transfer of data will occur from the vehicle to US Army enterprise users. The Secure MSD software developed by Ricardo Defense will be tested later this year and support fielding of the SEPv3 tank.

Case study

Digital Logbook

Ricardo Defense has developed a software tool, the Digital Logbook (DLB), that vehicle maintainers can use to collect vehicle operating information, request maintenance work orders and accurately track vehicle maintenance data with significantly reduced data entry requirements. This tool has been developed to work in conjunction with other Ricardo Defense developed products to reduce maintainer workload, improve their performance and readiness of the fleet. The DLB is now being used as part of a pilot program that is collecting and moving this data from a fleet of tactical wheeled vehicles to analysts that are reviewing it at a centralized logistics data warehouse and also to the vehicle engineering organizations.



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

Performance Products



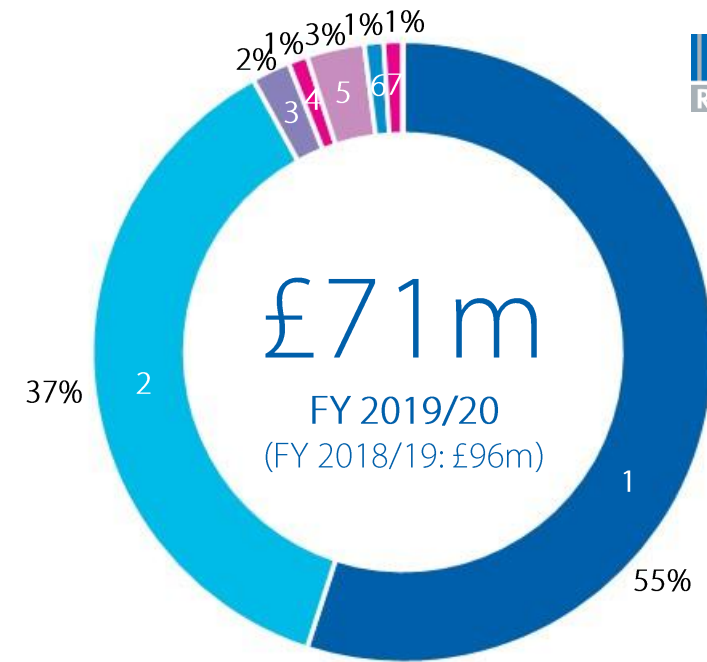
- McLaren deliveries were impacted by COVID-19 with a 3 month shutdown of their production line – production of engines recommenced towards the end of June, albeit at lower levels than before the pandemic
- Deliveries to the MOD’s CVR(T) programme have continued through the pandemic and are running ahead of schedule
- Bugatti deliveries continue to run on schedule despite COVID-19
- Preproduction transmissions were successfully delivered to two major OEM clients for programmes entering production in 2020/21
- The business ends the year with a strong order book, particularly in transmissions, and an expectation that McLaren deliveries will begin to recover through the remainder of 2020 and into 2021

£m	Year ended 30 June	
	2020	2019
Revenue	69.0	95.4
Underlying operating profit ⁽¹⁾	4.9	9.9
Underlying operating profit margin ⁽¹⁾	7.1%	10.4%

(1) excludes the impact of IFRS 16

Order Intake

- 1-4. Top 4 clients
- 5. UK defence
- 6. Other UK clients
- 7. Other Europe clients



Order Book Profile



Over 20 live projects;
310 people

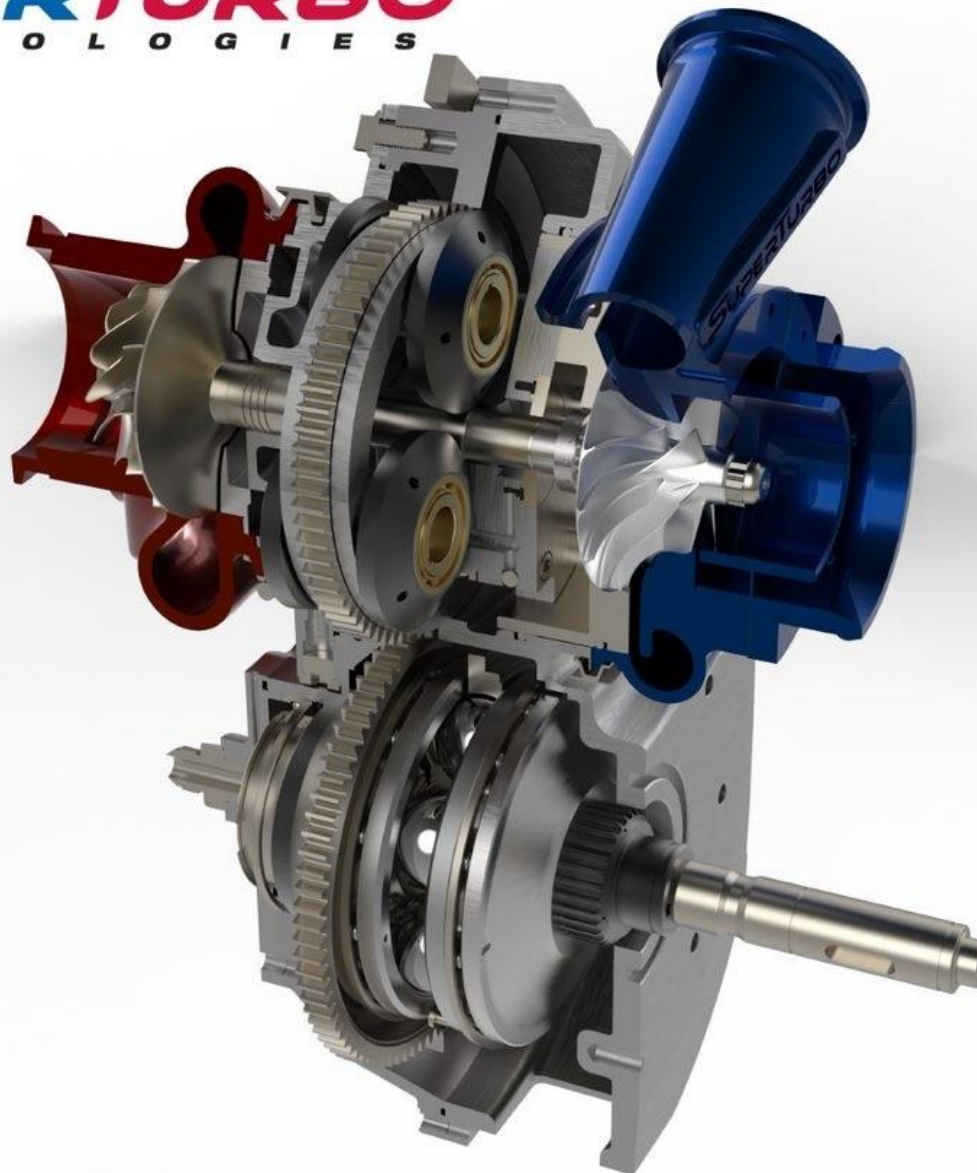
Contracts outside of order book >£100m

Case study

SuperTurbo™ Technologies Industrialisation

During 2020 Ricardo has been collaborating with US based SuperTurbo for the phased industrialisation of a radical new planetary traction drive for commercial vehicles.

This novel device enables the engine manufacturer to optimise combustion while supporting power transfer to and from the turbo shaft. Ultimately this provides better fuel consumption, lower emissions and a positive environmental impact.





Case study



Motorsport Transmissions

Ricardo continues to be the transmission provider of choice by some of the world's leading OEM's in support of their Motorsport activity.

Further growth in this technological showcase was capped by multiple top tier victories including Bentley's maiden victory at the world renowned and demanding Liqui-Moly Bathurst 12 hour endurance race in Australia earlier this year.

Case study

McLaren 765LT Engine Assembly

Ricardo continues to support UK based automaker, McLaren, with engine supply for their ever expanding range of sportscars.

Early 2020 saw the launch of the 765LT marking the 13th addition to their family of high performance V8 engines, which Ricardo introduced successfully into its production line at Shoreham-on-Sea.

Continual investment in this world class capability and facility ensures that Ricardo maintains ultimate flexibility with regards customer requirements of variants and volumes.



Strategic Consulting & Software

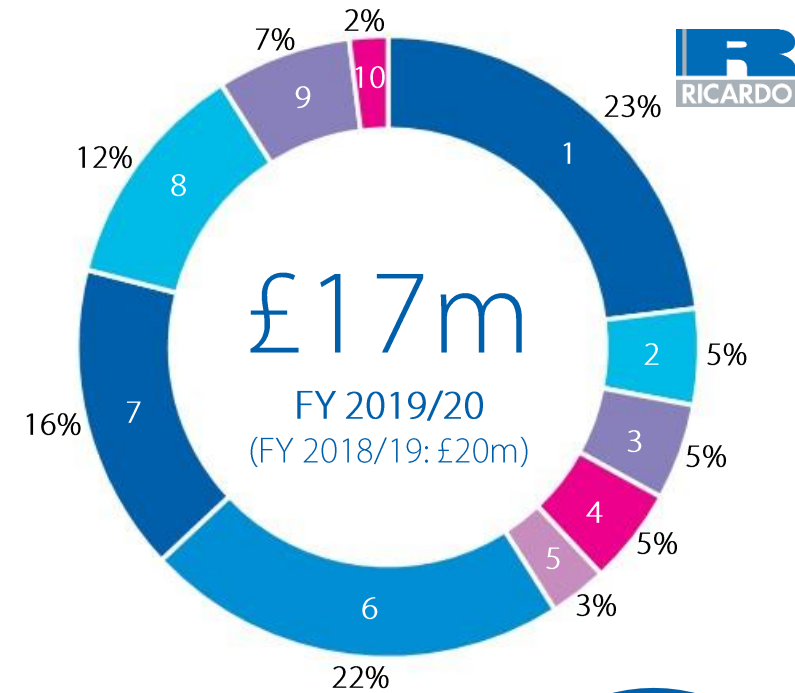
- COVID-19 has had an adverse impact on orders and revenue – this is due to Automotive customers reducing spend in general
- Despite the challenging external environment, we are scaling up our new virtual consultancy business model (TRNTY) and new digital service (RiCK)
- The latest Software product release (2020.2) includes a series of advanced new features including solutions for optimising battery systems, large engine spark ignition modelling, faster simulations and new detailed kinetics tools
- Kimberly Matenchuk, former GE Digital and Google UK executive joined Ricardo as new MD of Ricardo Software

£m	Year ended 30 June	
	2020	2019
Revenue	18.2	22.5
Underlying operating profit ⁽¹⁾	0.1	3.9
Underlying operating profit margin ⁽¹⁾	0.5%	17.3%

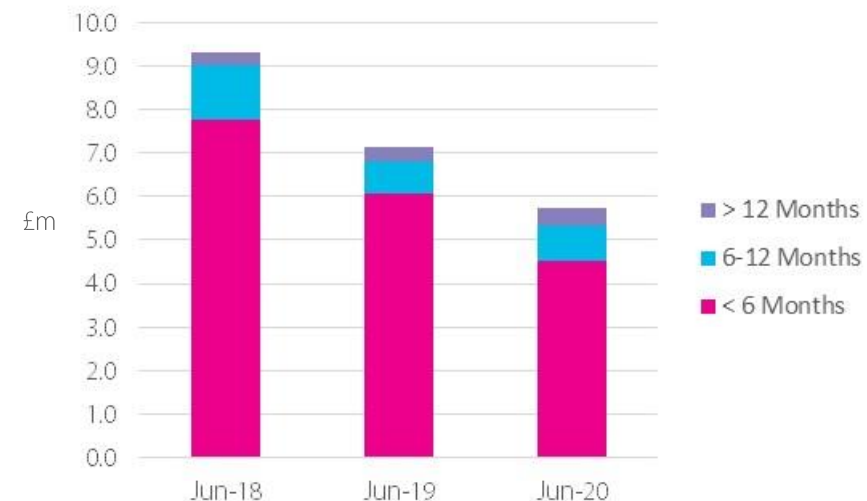
(1) excludes the impact of IFRS 16

Order Intake

- 1-5. Top 5 clients
- 6. Other Asia clients
- 7. Other North America clients
- 8. Other Europe clients
- 9. Other UK clients
- 10. Rest of the World clients



Order Book Profile



Over 180 live projects;
180 people



Case study

Target cost reductions for high volume production of single axis tracking solar array system

Using a consolidated approach on design to cost idea generation, Ricardo generated more than 50 different concept ideas and developed five of them to a greater detail, helping a leading manufacturer of solar array systems to identify on their current product line an estimated design cost savings of ~\$10M per year





Case study



Develop a go-to-market strategy for a novel composite based automotive solution

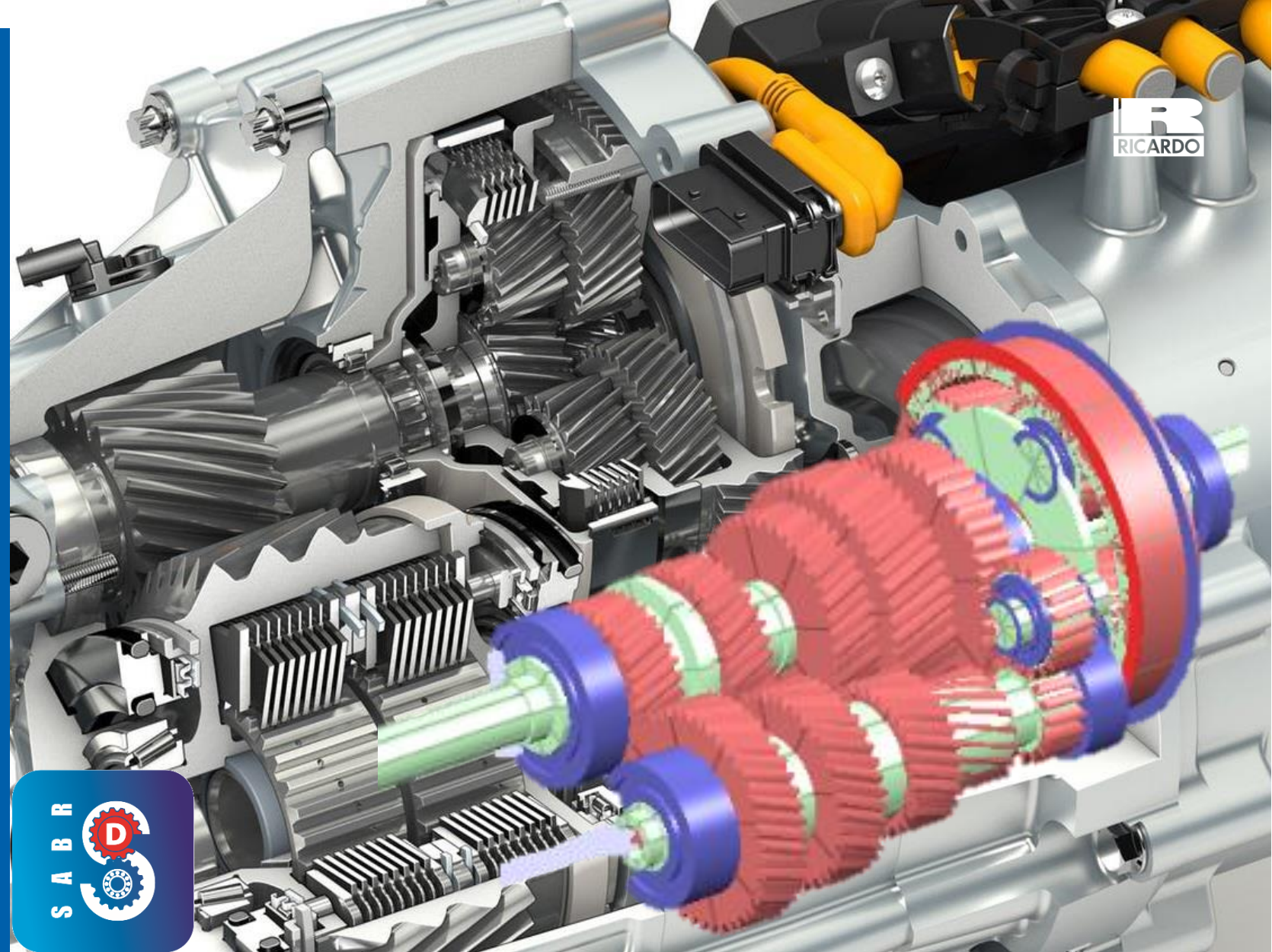
A supplier of polymer engine components had been struggling to introduce its automotive solutions to compete with ferrous based incumbent technology. Ricardo conducted a full market and technology assessment, including a review of customer requirements, and developed a thorough commercial and technical go-to-market strategy. This enabled the client to develop and maintain relationships with identified target OEMs at the correct technical and commercial level, significantly increasing the number of active programmes.

Case study

Transmission tool set for the next generation of E-Drive transmission

Dynamic analysis of complex transmission, driveline and e-drive systems for NVH, durability and life prediction are now possible via our new transmission tool set SABR-DYNAMICS.

Our approach not only accelerates development timelines through enhanced upfront virtual engineering processes but reduces risk through use of a digital twin as a predictive virtual physical model driving cost-savings throughout the entire development process.



Highlights

for the year ended 30 June 2020

- Good performance in H1 with COVID-19 impacting performance in H2
- Energy & Environment, Defense and Rail all delivered an increase in profits on the prior year
- Automotive-related businesses were significantly impacted with lower profits than prior year
- Automotive-related businesses restructured to provide lower cost base (c£10m p.a.) and realign it to anticipated demand
- Good cash performance with positive working capital for the year – net debt was flat for the COVID-19 impacted H2
- Cash resources increased by £50m and liquidity of £143m at 30 June 2020
- Majority of offices and all assembly lines now open and operational following significant disruption during H2



“We enter the new financial year with a good order book and we secured over £70m of new orders in July and August 2020. We have an agile business which has proven its resilience in a highly uncertain environment. We continue to see good opportunities for Ricardo in the markets that we serve, and through the execution of our strategy we are well positioned to continue to grow our Group as a sustainable business which delivers value for all of our stakeholders.”

Creating a world
fit for the future



Appendix

Income statement – Underlying and total Group



£m	Year ended 30 June							Year on Year growth	
	2020	2020	2020	2019	2019	2019	Underlying	Total	
	Underlying	Specific adjusting items ⁽¹⁾	Total	Underlying	Specific adjusting items ⁽¹⁾	Total			
Revenue	352.0	-	352.0	384.4	-	384.4	(8)%	(8)%	
Gross profit	115.1	-	115.1	134.9	-	134.9	(15)%	(15)%	
Administration costs	(95.1)	(20.9)	(116.0)	(95.3)	(10.5)	(105.8)	0%	10%	
Operating profit/(loss) ⁽²⁾	20.0	(20.9)	(0.9)	39.6	(10.5)	29.1	49%	(103)%	
Net finance costs ⁽²⁾	(4.4)	-	(4.4)	(2.6)	-	(2.6)	69%	69%	
Profit/(loss) before tax	15.6	(20.9)	(5.3)	37.0	(10.5)	26.5	(58)%	(120)%	
Taxation charge	(4.1)	3.0	(1.1)	(8.2)	1.6	(6.6)	(50)%	(83)%	
Profit/(loss) for the period	11.5	(17.9)	(6.4)	28.8	(8.9)	19.9	(60)%	(132)%	

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

(2) Current year includes the impact of IFRS 16, excluding this total operating loss would be (£1.8m) and net finance costs would be £(3.3)m.

Specific adjusting items



£m	Year ended 30 June	
	2020	2019
Amortisation of acquisition-related intangible assets	6.0	4.0
Acquisition-related expenditure	3.0	1.8
Reorganisation costs – Asset purchases and disposal	5.7	-
Other reorganisation costs	6.2	3.4
Guaranteed minimum pensions ('GMPs') equalisation	-	1.3
Total before tax	20.9	10.5
Tax credit on specific adjusting items	(3.3)	(1.6)
Tax charge on prior year specific adjusting items	0.3	
Total after tax	17.9	8.9

Balance sheet summary



£m	30 June	
	2020	2019
Tangible non-current assets	45.4	44.6
Intangible non-current assets	127.7	125.2
Right of use assets	23.9	-
Inventories, trade and other receivables	138.9	155.9
Assets held for sale	5.3	2.9
Net debt	(73.4)	(47.4)
Trade and other payables	(75.6)	(89.9)
Lease liability	(29.3)	-
Pension deficit	(6.7)	(8.5)
Other ⁽¹⁾	(7.1)	(10.9)
Net assets	149.1	171.9

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

Impact of IFRS 16



Key changes

- No distinction between finance and operating leases – all leases on balance sheet
- Operating lease charges replaced by depreciation and interest
- No underlying economic impact and no impact on cash flows
- Net debt will continue to be measured as bank borrowings less cash and cash equivalents, including hire purchase agreements, but excluding any impact of IFRS 16 lease liabilities

Balance sheet

- Transitional adjustments
£m

As at 1 July 2019

	Previously reported	Right of use asset	Lease liability	Other	Adjusted under IFRS 16
Non-current assets	176.5	37.1		3.4	217.0
Current assets	192.5			(0.5)	192.0
Assets held for sale	2.9				2.9
Current liabilities	(95.7)		(4.7)	1.4	(99.0)
Non-current liabilities	(104.3)		(40.9)	0.5	(144.7)
Net assets	171.9	37.1	(45.6)	4.8	168.2

More detail is given in Note 2 of the Financial Statements

Impact of IFRS 16



Income statement

- £0.2m impact on PBT
- Increase of £0.9m to operating profit and £1.1m to finance costs

Year ended 30 June 2020

£m	Pre-IFRS 16	IFRS 16 impact	Post-IFRS 16
Underlying operating profit ⁽¹⁾	19.1	0.9	20.0
Net finance costs	(3.3)	(1.1)	(4.4)
Underlying profit before tax ⁽¹⁾	15.8	(0.2)	15.6

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

Segmental results with Strategic Consulting & Software reallocated



£m	Year ended 30 June					
	Revenue earned		Underlying operating profit ⁽¹⁾		Underlying operating profit ⁽¹⁾ margin	
	2020	2019	2020	2019	2020	2019
Energy & Environment	50.8	44.6	6.1	5.0	12.0%	11.2%
Rail	75.3	67.4	5.6	5.2	7.4%	7.7%
Automotive & Industrial	117.2	143.4	0.1	18.3	0.1%	12.8%
Defense	32.8	25.2	5.1	3.2	15.5%	12.7%
Performance Products	75.9	103.8	5.0	11.6	6.6%	11.2%
Plc Costs			(2.8)	(3.7)		
Total before IFRS 16	352.0	384.4	19.1	39.6	5.4%	10.3%
Impact of IFRS 16 ⁽²⁾			0.9			
Total	352.0	384.4	20.0	39.6	5.7%	10.3%

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

Segmental results incorporating IFRS 16



£m	Year ended 30 June					
	Revenue earned		Underlying operating profit ⁽¹⁾		Underlying operating profit ⁽¹⁾ margin	
	2020	2019	2020	2019	2020	2019
Energy & Environment	50.8	44.6	6.3	5.0	12.4%	11.2%
Rail	75.3	67.4	5.8	5.2	7.7%	7.7%
Automotive & Industrial	105.9	129.3	0.5	16.1	0.5%	12.5%
Defense	32.8	25.2	5.1	3.2	15.5%	12.7%
Performance Products	69.0	95.4	5.0	9.9	7.2%	10.4%
Strategic Consulting & Software	18.2	22.5	0.1	3.9	0.5%	17.3%
Plc Costs			(2.8)	(3.7)		
Total	352.0	384.4	20.0	39.6	5.7%	10.3%

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

Segmental results with Strategic Consulting & Software reallocated and incorporating IFRS 16



£m	Year ended 30 June					
	Revenue earned		Underlying operating profit ⁽¹⁾		Underlying operating profit ⁽¹⁾ margin	
	2020	2019	2020	2019	2020	2019
Energy & Environment	50.8	44.6	6.3	5.0	12.4%	11.2%
Rail	75.3	67.4	5.8	5.2	7.7%	7.7%
Automotive & Industrial	117.2	143.4	0.5	18.3	0.4%	12.8%
Defense	32.8	25.2	5.1	3.2	15.5%	12.7%
Performance Products	75.9	103.8	5.1	11.6	6.7%	11.2%
Plc Costs			(2.8)	(3.7)		
Total	352.0	384.4	20.0	39.6	5.7%	10.3%

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

Segmental results on historic basis

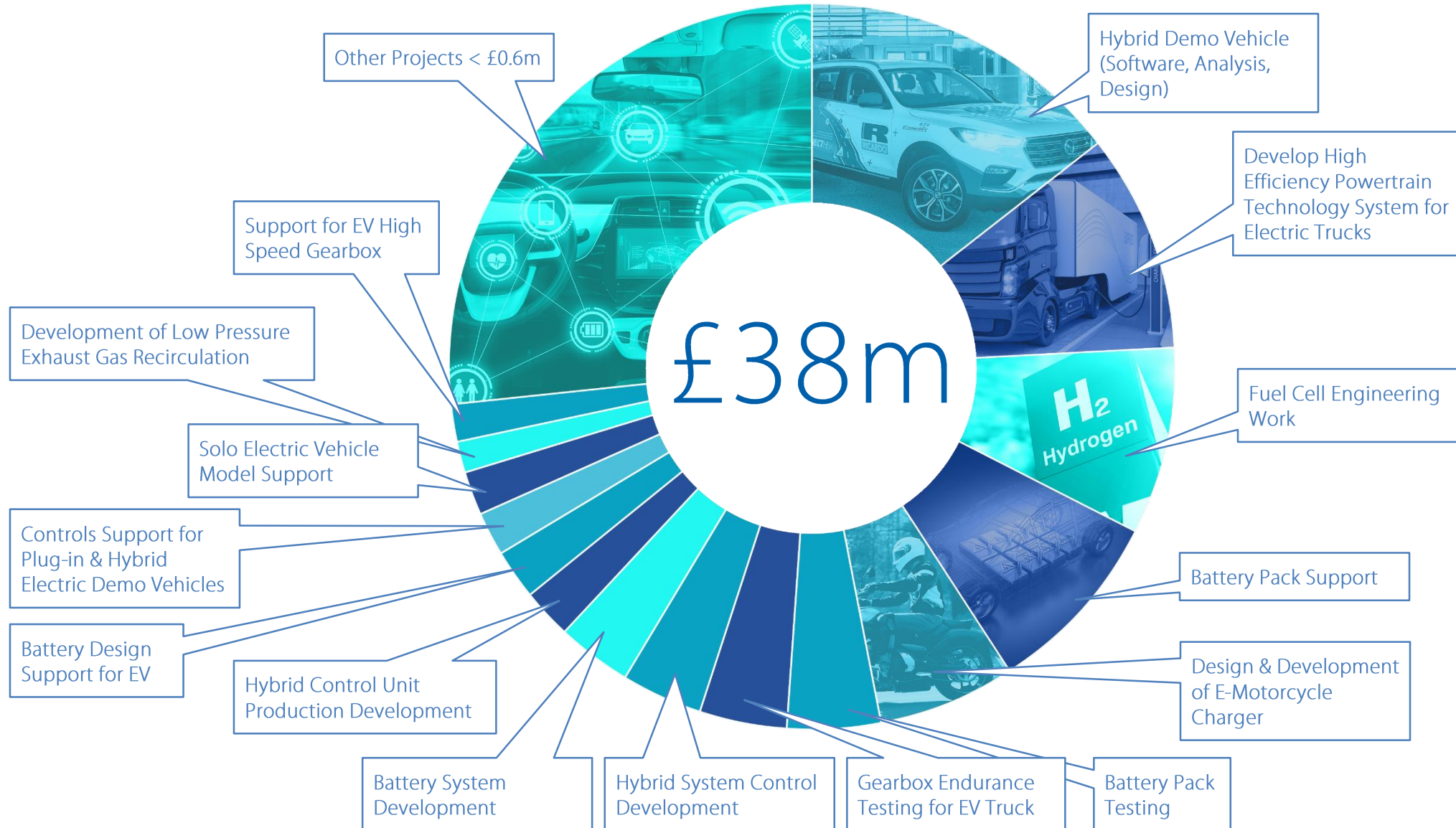


£m	Revenue earned		Year ended 30 June Underlying operating profit ⁽¹⁾		Underlying operating profit ⁽¹⁾ margin	
	2020	2019	2020 ⁽²⁾	2019	2020 ⁽²⁾	2019
Technical Consulting	260.7	270.5	13.5	27.7	5.2%	10.2%
Performance Products	91.3	113.9	6.5	11.9	7.1%	10.4%
Total	352.0	384.4	20.0	39.6	5.7%	10.3%

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

(2) Current year includes the impact of IFRS 16, excluding this underlying operating profit would be £19.1m and underlying operating profit margin would be 5.4%.

Order intake relating to electric or hybrid vehicles is £38m



Investments and acquisitions



PLC Consulting

- £4.2m paid in H1 FY20 (£3.8m, net of cash acquired).
- Additional £1.5m, subject to financial performance targets, to be paid over the next two years.

Date Acquired	No. of people	Cash consideration	Revenue p.a.	Operating Profit p.a.
31 July 2019	21	£4.2m (max £5.4m)	£2.2m	£0.8m

Detroit Technical Center

- Purchase of DTC comprising the north test building and south office building for £14.2m in August 2019 to provide strategic flexibility and realign cost base
- Sale of test facilities including the north test building in June 2020 for initial cash consideration of £2.8m, which could increase to a maximum of £4.4m, depending on the volume of testing work placed into the facility by Ricardo over the next two years. A loss of £2.1m was recognised on the sale.
- South office building remains held for sale at June 2020
- Impairment and/or gains and losses on freehold property and assets treated as specific adjusting items

Considerations regarding Brexit

Key mitigating actions we have taken include:

Performance Products

- McLaren – Supply chain on notice to flex inventory in support of engine production. Currently jointly monitoring the situation with McLaren;
- Bugatti – Supply chain on notice to flex inventory in support of transmission production. Currently jointly monitoring the situation with Bugatti;
- Export Systems and Compliance Documentation updated to accommodate a No Deal scenario.

Rail

- We hold licences for our Rail Certification business in England and Netherlands to provide certification services throughout the World and the EU.

Energy and Environment

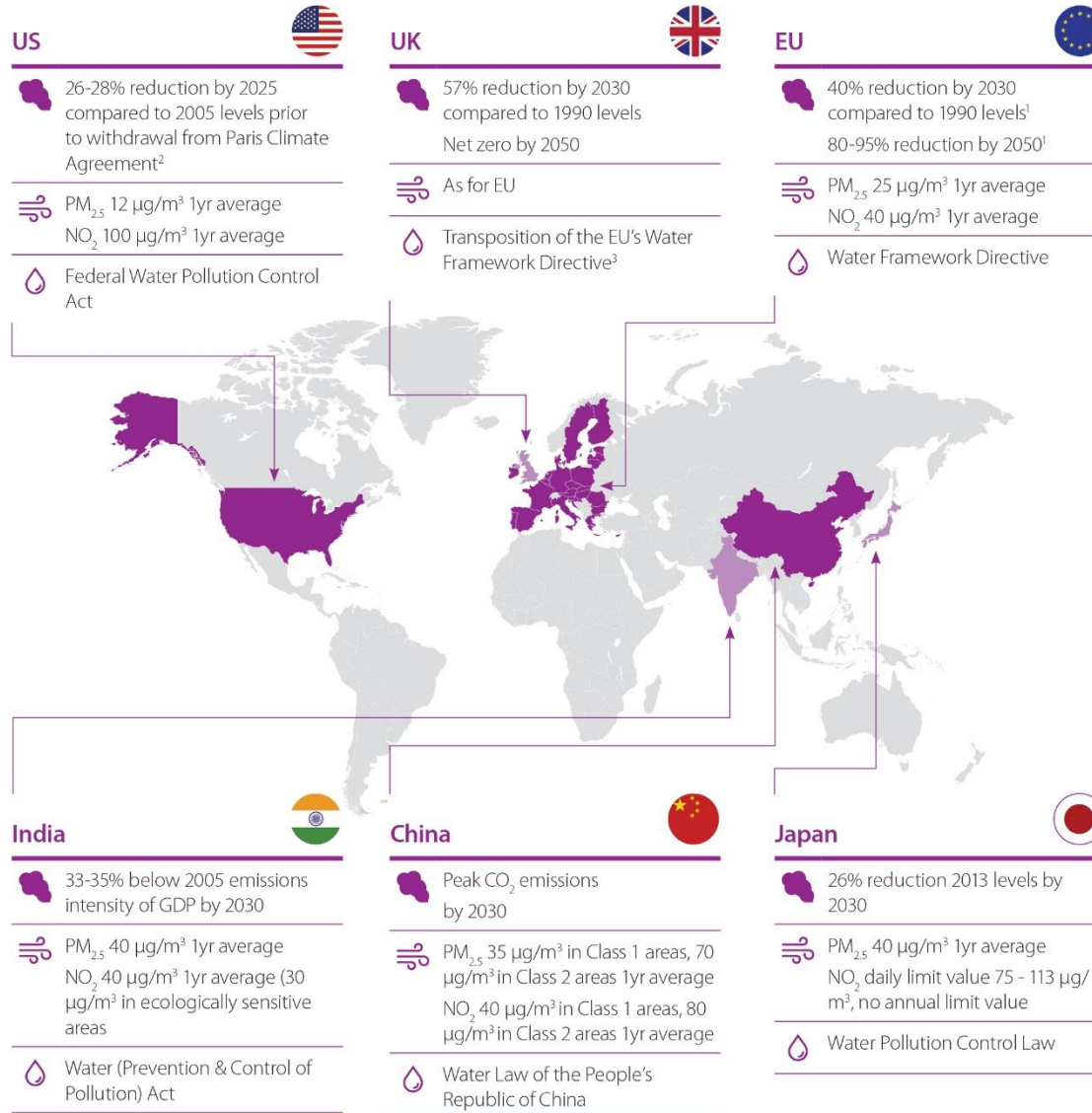
- We continue to bid for and are contracting with European customers from our Netherlands office;

Automotive

- We have the ability to deliver some Automotive projects within the EU using our Prague technical centre (230 engineers).
- Brexit strategy is to mitigate, where possible, the impact of no trade deal between the UK and the EU whilst avoiding unnecessary cost.



Selected Global and Regional Regulations



Global



Paris Climate Agreement: Keep global temperature rise below 2°C above pre-industrial levels and pursue efforts to limit the rise to 1.5°C



Reduce the total annual GHG emissions by at least 50% by 2050 compared to 2008 levels



Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

1. The EU is currently proposing revised targets of 50-55% reduction by 2030 compared to 1990 and net zero emissions by 2050, but these have not yet been enshrined in legislation
2. The US expressed its Paris Climate Agreement target for 2025 compared to 2005 levels. This is equivalent to a 10-17% reduction against 1990 levels by 2025. The US has now withdrawn from the Paris Climate Agreement, so these figures may not stand
3. The EU's Water Framework Directive has been transposed for the UK into (i) The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017, (ii) The Water Environment and Water Services (Scotland) Act 2003 and (iii) The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017