

Delivering Excellence Through Innovation & Technology

Ricardo plc

Preliminary Results Presentation

Year ended 30 June 2016

September 2016

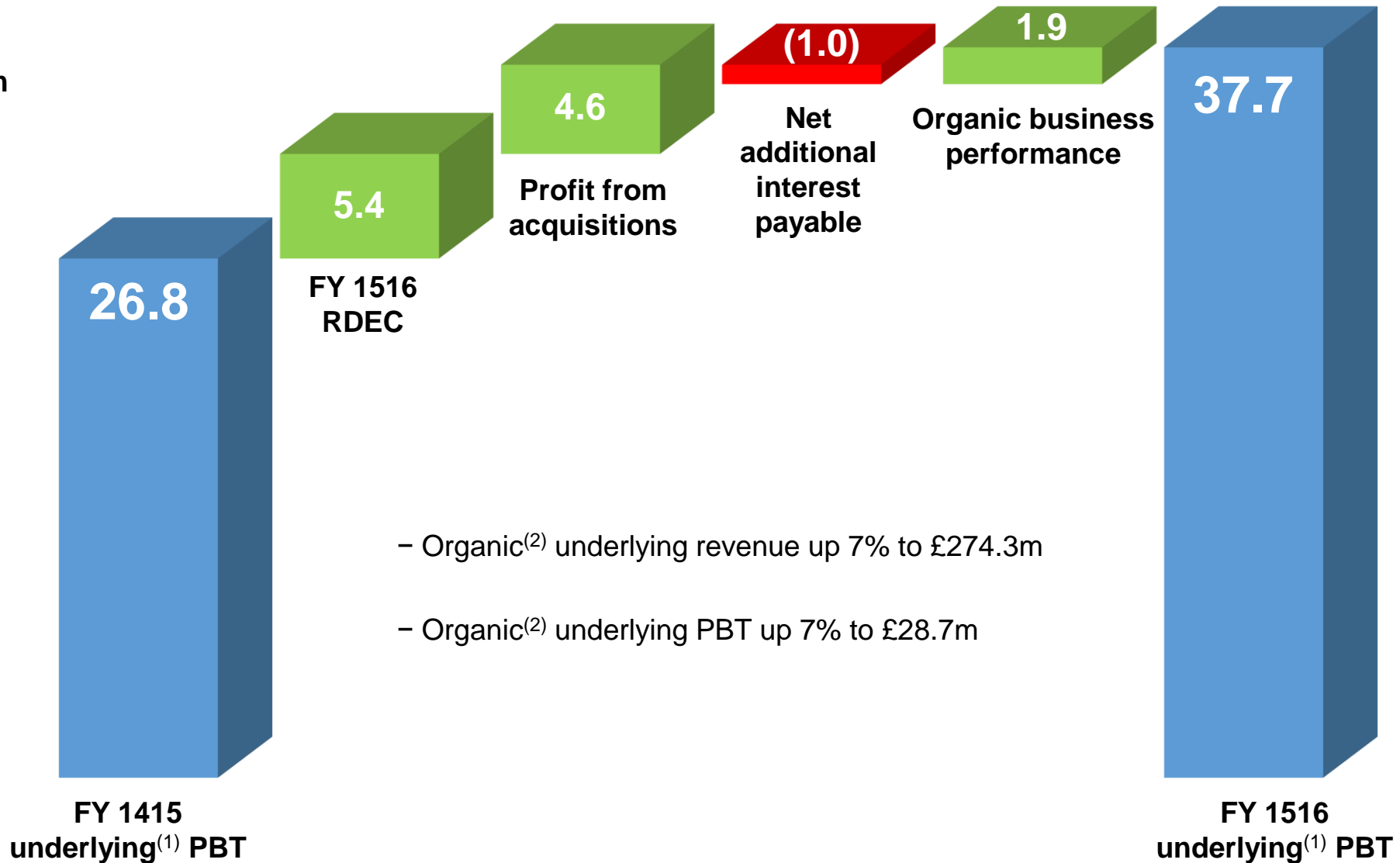


HIGHLIGHTS – for the year ended 30 June 2016

- Strong order book at £231m (Jun 2015: £140m)
- Like-for-like order book growth of 18%
- Order intake of £361m (Jun 2015: £252m)
- Revenue up 29% to £332.4m (Jun 2015: £257.5m)
- Underlying⁽¹⁾ PBT up 41% to £37.7m (Jun 2015: £26.8m)
- Underlying⁽¹⁾ basic earnings per share up 30% to 55.2p (Jun 2015: 42.4p)
- Net debt of £34.4m after £48.8m net acquisition costs (Jun 2015 net funds: £14.3m)
- Full year dividend up 9% to 18.1p per share (Jun 2015: 16.6p)
- Acquisitions of LR Rail and Cascade completed in the year; Exnovo completed post year end
- Outlook remains positive, good platform for further growth

(1) excluding specific adjusting items, which comprise amortisation of acquired intangible assets, acquisition-related expenditure and prior year RDEC claim

£m



– Organic⁽²⁾ underlying revenue up 7% to £274.3m

– Organic⁽²⁾ underlying PBT up 7% to £28.7m

(1) excluding specific adjusting items, which comprise amortisation of acquired intangible assets, acquisition-related expenditure and prior year RDEC claim

(2) excluding acquisitions and current year RDEC claim

	Year ended 30 June 2016	Year ended 30 June 2015	Year-on-Year Movement
Order intake (£m)	£361m	£252m	£109m
Order book (£m)	£231m	£140m	£91m
Operating profit margin ⁽¹⁾ (%)	11.9%	10.8%	1.1%
Effective tax rate ⁽²⁾ (%)	22.4%	18.8%	3.6%
Basic earnings per share (pence) ⁽¹⁾	55.2p	42.4p	12.8p
Full year dividend (pence)	18.1p	16.6p	1.5p
Net (debt)/funds (£m)	£(34.4)m	£14.3m	£(48.7)m
Pre-tax pension deficit (£m)	£21.5m	£20.7m	£0.8m
Closing headcount incl. subcontractors (no.)	2,905	2,308	597

(1) excluding specific adjusting items, which comprise amortisation of acquired intangible assets, acquisition-related expenditure and prior year RDEC claim

(2) includes change to RDEC

£m	Year ended 30 June		Year-on-Year Movement
	2016 Underlying ⁽¹⁾	2015 Underlying ⁽¹⁾	% change
Revenue	332.4	257.5	29%
Gross profit	129.8	101.8	28%
Administration costs	(90.2)	(74.1)	22%
Operating profit	39.6	27.7	43%
Net finance costs	(1.9)	(0.9)	111%
Profit before tax	37.7	26.8	41%
Taxation charge	(8.6)	(4.6)	87%
Profit for the year	29.1	22.2	31%

(1) excluding specific adjusting items, which comprise amortisation of acquired intangible assets, acquisition-related expenditure and prior year RDEC claim. A full income statement including these items is included in the Appendix.

Income Statement – organic excluding impact of acquisitions and RDEC



£m	Year ended 30 June		Year-on-Year Movement
	2016 Underlying ⁽¹⁾	2015 Underlying ⁽¹⁾	% change
Revenue	274.3	257.5	7%
Gross profit	106.6	101.8	5%
Administration costs	(77.0)	(74.1)	4%
Operating profit	29.6	27.7	7%
Net finance costs	(0.9)	(0.9)	-
Profit before tax	28.7	26.8	7%

(1) excluding impact of acquisitions, current year RDEC claim and specific adjusting items; which comprise amortisation of acquired intangible assets, acquisition-related expenditure and prior year RDEC claim

Revenue by customer location



External Revenue	Year ended 30 June	Year ended 30 June
£m	2016	2015
UK	154.2	120.8
Germany	24.7	25.6
Rest of Europe	41.2	20.8
Europe total	220.1	167.2
US	39.2	39.2
China	21.4	20.0
Japan	18.1	17.6
Rest of Asia	26.7	9.9
Asia total	66.2	47.5
Rest of the World	6.9	3.6
Total	332.4	257.5

Segmental results – RDEC pulled out separately



Full year ended 30 June

£m	Revenue earned		Underlying operating profit ⁽¹⁾		Underlying operating profit ⁽¹⁾ margin	
	2016	2015	2016	2015	2016	2015
Technical Consulting	267.9	196.6	27.8	20.0	10.4%	10.2%
Performance Products	64.5	60.9	6.4	7.7	9.9%	12.6%
RDEC	-	-	5.4	-	-	-
Total	332.4	257.5	39.6	27.7	11.9%⁽²⁾	10.8%

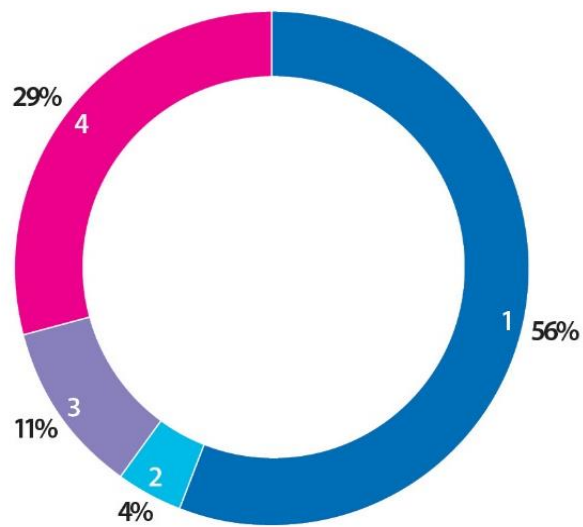
(1) excluding specific adjusting items, which comprise amortisation of acquired intangible assets, acquisition-related expenditure and prior year RDEC claim

(2) total Group underlying operating profit margin excluding specific adjusting items and current year RDEC is 10.3%

Performance Products Revenue Mix



Performance Products breakdown
Year Ended 30 June 2016



- 1. Key Client 1
- 2. Key Client 2
- 3. Software
- 4. Others





Delivering Excellence Through Innovation and Technology

Ricardo and Ford Racing dominant at Le Mans

2015 saw Ricardo win a tender to supply the high performance transmission to Ford Racing for the return of the GT to Le Mans in 2016 to celebrate 50 years since their first triumph in 1966 with the GT40. A challenging schedule for both validation and delivery of production gearboxes was set out from the start of the project with Ford entering a four car team and achieving 1st, 3rd and 4th in the class on their return to Le Mans.



Delivering Excellence Through Innovation and Technology

Ricardo return to rally with Hyundai and R5

2016 saw Ricardo return to the world class rally championships with the development of its new innovative R5 transmission system for Hyundai and their new i20 based rally car. The i20 was unveiled at the ERC Ypres Rally (Belgium) in June and will actively compete in the 2017 season onwards.

£m	Year ended 30 June	
	2016	2015
Underlying operating profit	39.6	27.7
Depreciation and amortisation	10.5	9.2
RDEC	(5.4)	-
Working capital increase	(13.2)	(3.3)
Dividends	(8.9)	(8.1)
Tax paid	(3.0)	(1.3)
Capital expenditure	(14.7)	(15.8)
Pension charge and funding	(4.4)	(4.4)
Net share related credit/(costs)	1.5	(0.4)
Forex movements/other (interest/FX)	(1.9)	1.7
Cash inflow excluding acquisition-related costs	0.1	5.3
Acquisition-related costs	(48.8)	(3.6)
Cash (outflow)/inflow	(48.7)	1.7
Opening Cash Balance	14.3	12.6
Closing Cash Balance	(34.4)	14.3

Balance sheet summary



£m	30 June 2016	30 June 2015
Tangible non-current assets	53.6	49.6
Intangible non-current assets	92.3	44.9
Inventories, trade and other receivables	119.9	86.4
Net (debt)/funds	(34.4)	14.3
Trade and other payables	(72.5)	(63.8)
Pension deficit (net of tax)	(17.4)	(16.6)
Other	(2.0)	1.2
Net assets	139.5	116.0

- Ricardo is an international Group with operations in 19 countries
- The diversification and international spread of our customers and operations means we do not today expect Brexit to have a material impact on the business
- Potential benefit from weaker sterling;
 - overseas earnings are translated into Sterling
 - work priced in Sterling is cheaper for foreign customers
 - work performed in UK and contracted in foreign currency more price competitive
- Had the current year organic results been stated at constant exchange rates, FY1516 reported revenue and profit before tax would have been lower by £2.6m and £0.1m respectively
- R&D funding from Horizon 2020 is confirmed to continue

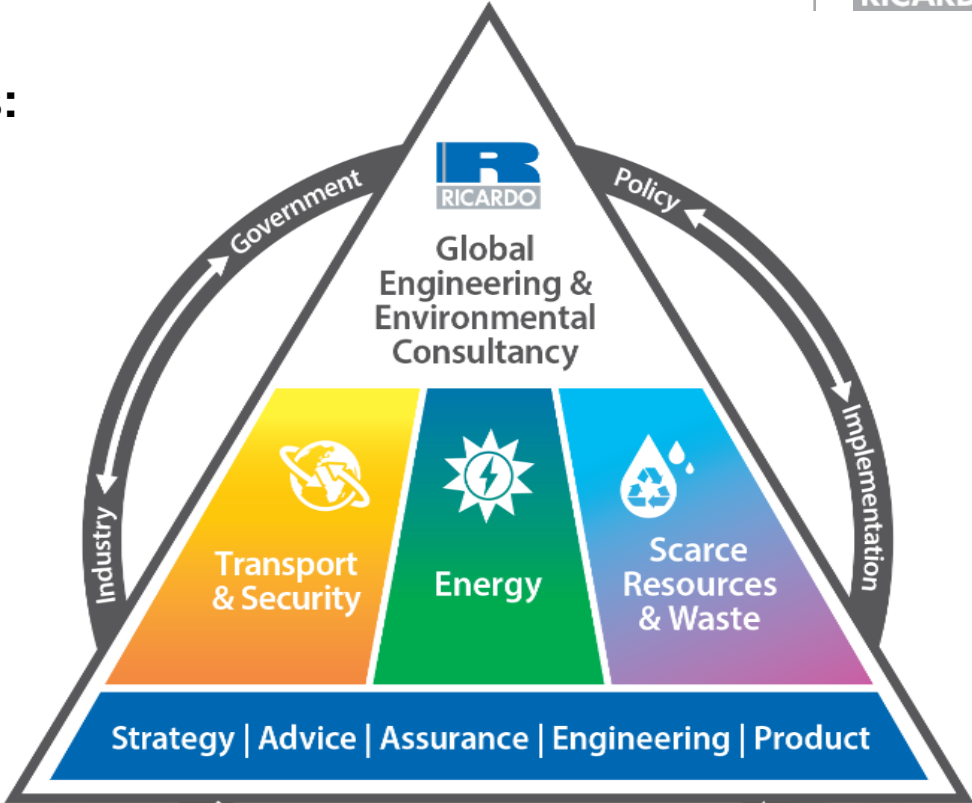


Supported by a team of 2,900, a strategy for growth focused on global technical consulting and longer cycle revenues



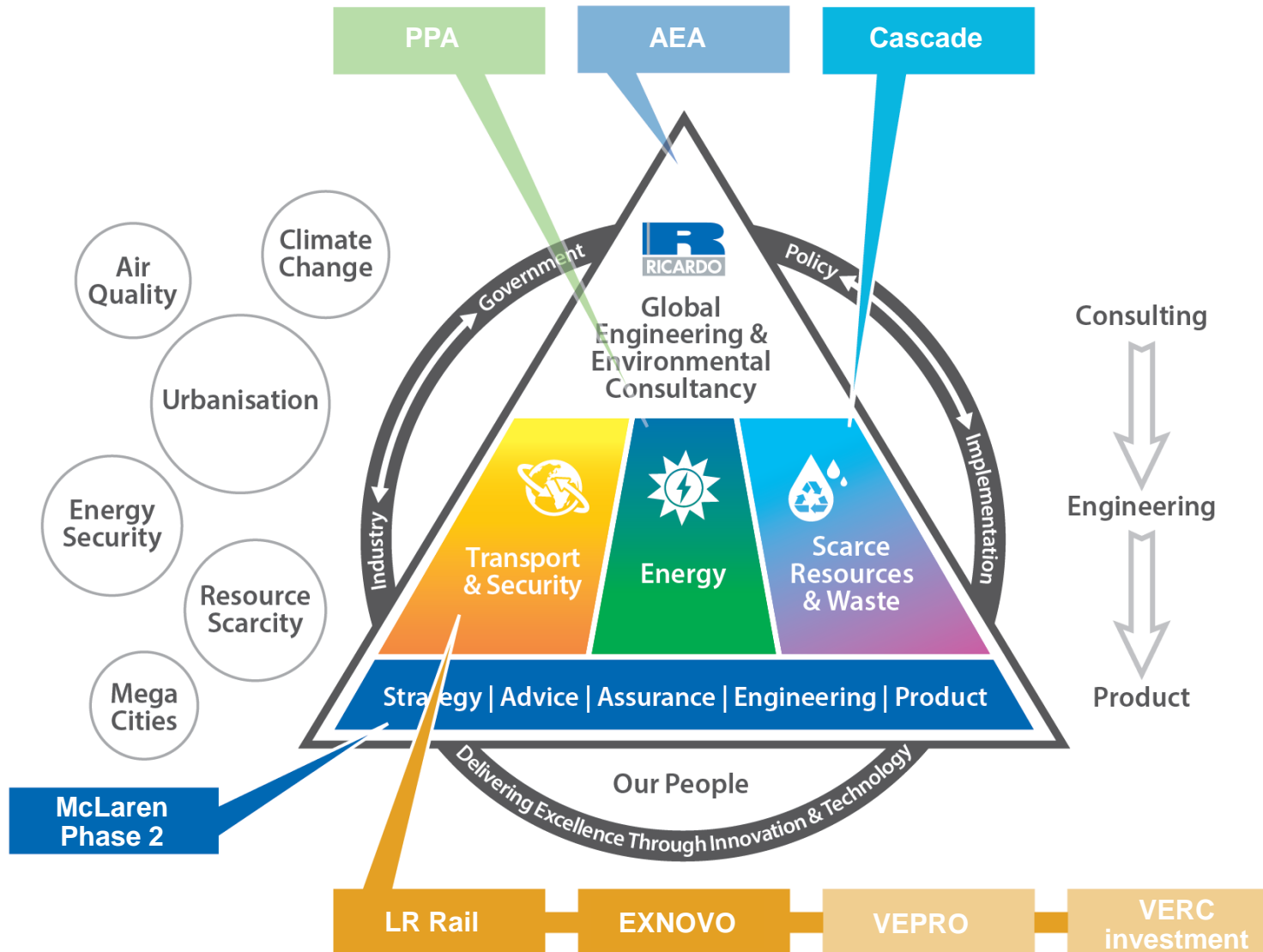
Megatrends driving focus for solutions:

- **Climate Change**
(emissions and waste)
- **Urbanisation**
(transport, energy, efficiency)
- **Resource Scarcity**
(oil/water usage)
- **Energy Security**
(renewables, bio-fuels)



Our People
Delivering Excellence Through Innovation & Technology

Populating the strategy – where the strategic investment fits



Customers' countries where we have done business in the year



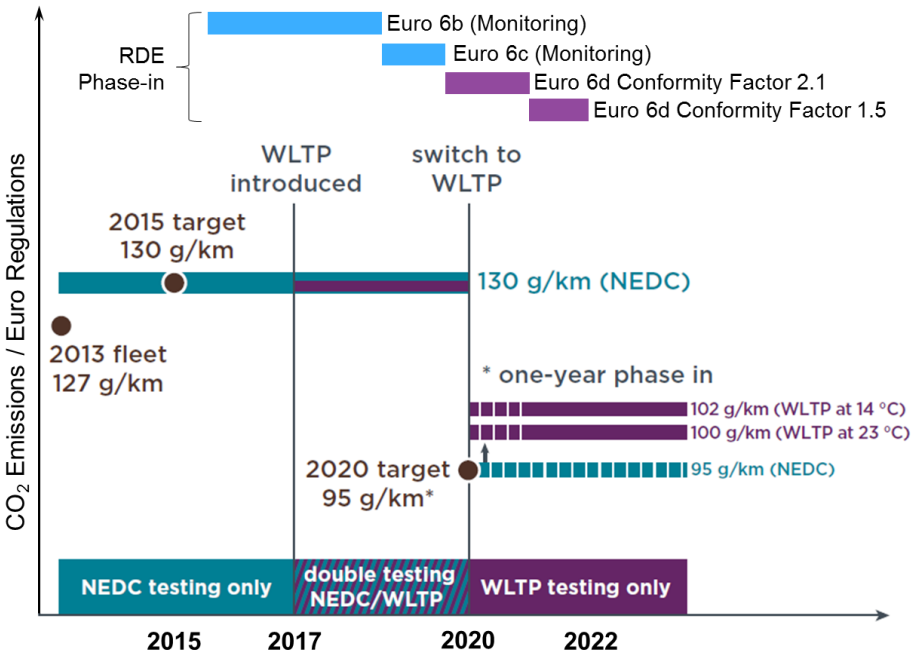
- VW emissions scandal likely to lead to significant changes to homologation processes, with a greater emphasis on independent third party testing
- Reducing carbon dioxide emissions underpinned by the agreements reached in Paris in December 2015 at COP21
- Demand for new technology and product development continues in Asia with continuing interest in hybrid technologies
- Growth of California as a technology hub for the automotive industry, with new players
- New urban mobility products, electric scooters to electric vehicles under development
- Volatility in world markets but continued economic growth in Asia



“Diesel-gate” has affected diesel sales – however, new regulations have increased demand for diesel calibration & opportunities in electrification

● Air Quality challenges: Diesel impacts:

- Reputation damage for diesel products continues to effect diesel sales – now below 50% in EU
- Many city authorities introducing bans/potential bans for diesel passenger cars in the future
- Many vehicle OEM’s announcing new electrified powertrain options
- Vehicle OEM’s generally now taking a more constructive view of emissions codes; will obey “spirit” not just “letter” of regulations
- New test procedures (WLTP & RDE) extremely complex (WLTP regulation runs to 360 pages & each RDE package (4 off) 200+ pages each) – also introducing considerable uncertainty in execution



● Subsequent impacts for Ricardo business:



- Complexity of test procedures increasing outsourced calibration work
- Potential increase in demand for electrification/hybrid services to meet revised Vehicle OEM product mix



- Reduction in diesel sales
- Potential reduction in demand and more competition for future diesel engine design/development

Global tailpipe and CO₂ emissions legislation adherence are “must haves” in the development budget of many of our clients



		2010	2015	2020	2025	
Automotive, LCV & HPV	Europe	Euro 5 Cars 130 g/km	Euro 6a Euro 6b	Euro 6D-Temp	Euro 6d - WLTP+RDE Cars 95 g/km	Cars 68-78 g/km
	US (49 States)	Tier 2 8.55 l/100km Cars & LCV	Tier 3 6.2 l/100km Cars & LCV			4.3 l/100km Fleet Average
	California	LEV II (2009) 27.6/20.3 mpg Fleet/Trucks	LEV III 6.4 l/100km Fleet Average		5.1 l/100km Fleet Average	3.8 l/100km Fleet Average
	China	CN4 (Euro 4) Phase 2 (6.2-13.9 l/100km)	CN5 (Euro 5) Phase 3 (5.2 - 11.5 l/100km)		China 6a - WLTP + RDE Phase 4 (4.3-7.3 l/100km Fleet Average)	China 6b
	Japan	Post New Long-Term	4.4-11.5 l/100km Mass-Based		4-9.4 l/100km Mass-Based	
	Motorcycle & Personal Transportation	Europe	Euro 3	Euro 4	Euro 5	
US (49 States)	Classes I, II & III	Harmonisation with California				
California	California Motorcycle Limits					
China	Stage III	WMTC Adoption with Euro 4 Limits				
Japan	ISO6460 Limits 0 - 125cc / > 125 cc	ISO 6460 & WMTC	Euro 4			
Taiwan	Euro 3		Euro 4			
Commercial Vehicles (Medium- & Heavy-Duty Truck)	Europe	Euro V	Euro VI	Euro VII		
	US (49 States)	EPA 07	Federal CO ₂ Emissions Standards Optional Low NOx Limits			
	California	EPA 07	Federal CO ₂ Emissions Standards			
	China	Euro IV	Euro V	Euro VI		
	Japan	Post New Long-Term	Lowering Nox limits of Post New Long Term standards			
			Mass-Based Limits for Semi Trailer Tow, Truck, Autodumper, Bus and City Bus			
Off-Highway	Europe	Stage IIIB	Stage IV			
US	Tier 4 Int	Tier 4 Final				
China	Stage II	Stage III (Nationwide) - Stage IV (Beijing)				
Japan	2011 Non-Road Special Vehicle Standards	2014 Non-Road Special Vehicle Standards				
Rail	EU & Russia	Stage IIIA	Stage IIIB	Stage V		
	US	Tier 2	Tier 3	Tier 4 Switch & Line Haul Locomotives		
	India	Not yet regulated				
	Australia	Not yet regulated			Studies ongoing to adopt US legislation	

- Acquisition of Lloyd's Register Rail and Cascade, and performing well
- Continued good levels of order intake
- Ricardo Defense Systems established and busy
- Californian business winning large electric vehicle programs
- Extension to McLaren production line complete, double shift initiated
- Energy & Environment (formerly AEA) high profile support to COP21
- Ricardo Certification established
- Secured multi-year transmission contract
- Exnovo acquisition completed post year-end





Delivering Excellence Through Innovation and Technology

Expertise for Emerging EV's in CA

Ricardo's presence in Santa Clara, CA supports the fast emerging electric vehicle market led by California's progressive zero emission vehicle (ZEV) mandate. Our team of experts currently supports the development of Faraday Future's DF91 gearbox and suspension and is also helping other Californian automakers bring their electric vehicles to market.



Delivering Excellence Through Innovation and Technology

Two-truck Platoon a Winner

Ricardo wrote the controls software and integrated the vehicle systems to demonstrate a first of its kind two-truck platooning technology in the United States. The project was commissioned by the Texas A&M Transportation Institute, the Federal Highway Administration (FHWA) and the Texas Department of Transportation (TxDOT). Two 18-wheelers traveled in a figure 8 at about 40 mph and maneuvered right and left lane changes in both directions.



A circular icon containing a white silhouette of an airplane in flight.

Delivering Excellence Through Innovation and Technology

Wave Energy Prize for U.S. DoE

Ricardo is planning and managing a technical challenge for ocean wave energy conversion (WEC) technology to deliver game changing performance enhancements to WEC devices, establishing a pathway to sweeping cost reductions at a commercial scale.



Delivering Excellence Through Innovation and Technology

Greater Mekong Subregion – Electricity Expansion and Trading

Ricardo Energy and Environment has worked on Asian Development Bank and the World Bank funded projects to provide regulatory support to the power sector in 6 countries; facilitating development of regional electricity trading. This included implementation advice on the Vietnamese Wholesale Electricity Market and also advice on applying Integrated Resource Planning with Strategic Environmental Assessment in Vietnam. Outcomes include increased electricity access, lower regional electricity prices, greater optimisation of hydro resources and improved supply reliability.





Delivering Excellence Through Innovation and Technology



Southern Water Strategic/Innovation Partnership

Memorandum of Understanding for “lasting R&D collaboration and partnership.” Two year R&D Framework – bringing innovation to the water sector, building on Ricardo engineering approaches. First project recently started to trial application of the Ricardo IGNITE system modelling approach for Southern Water’s water supply network. Potential future projects determined by scope and direction of initial study. Increasing value through long term partnership and cross-sectoral integration. Deployment of leading edge modelling techniques will enable evaluation of breakthrough technologies, reducing uncertainty in performance.



Delivering Excellence Through Innovation and Technology

Etihad Rail Independent Safety Assessment

Ricardo Rail undertook the Independent Safety Assessment activities of the 264km route from Shah and Habshan to Ruwais (a desert to coast - heavy freight railway). This is the first heavy rail system in UAE and 1st phase of the planned 1,200km route across the Emirates.



Delivering Excellence Through Innovation and Technology

Taiwan High Speed Railway

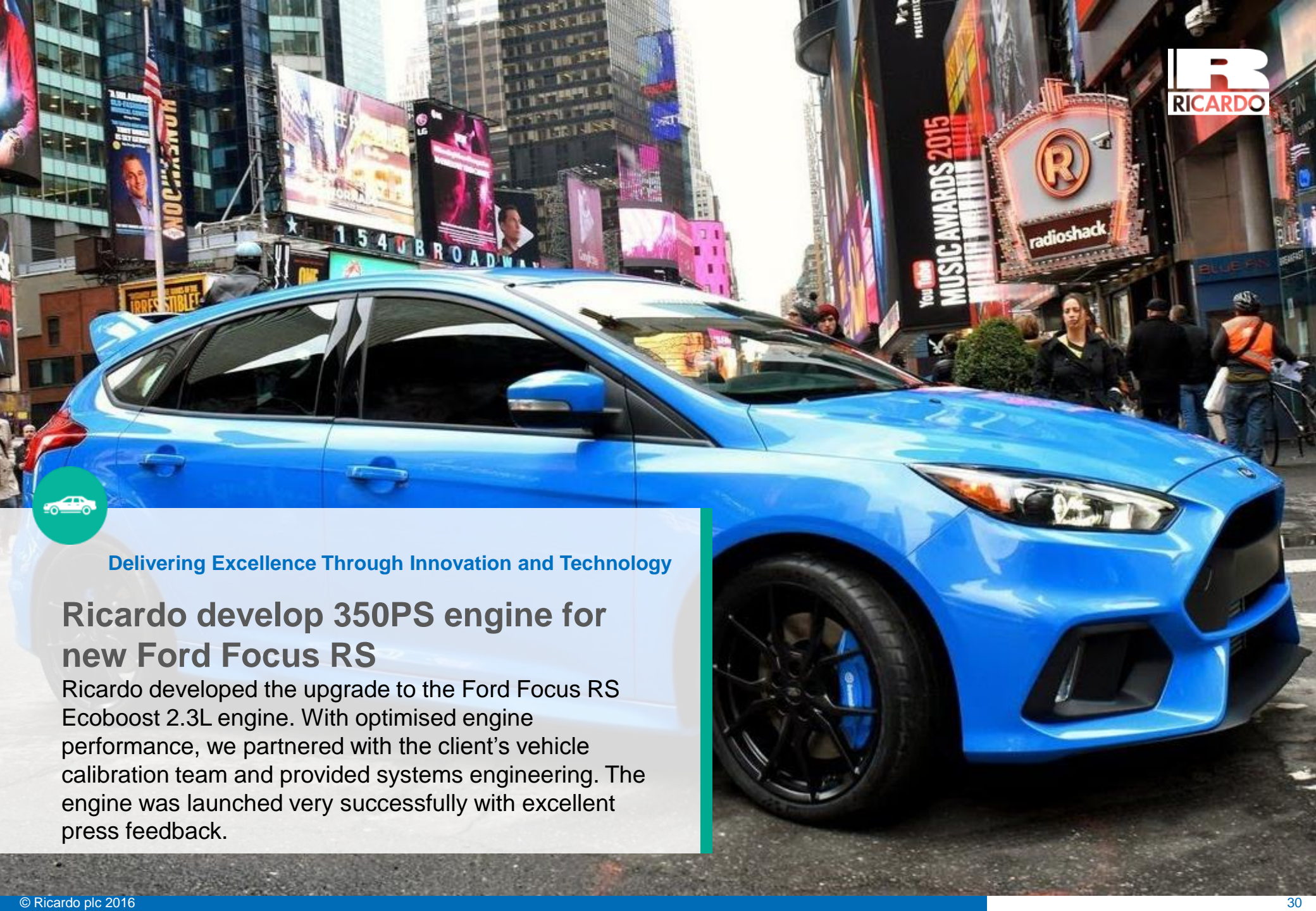
Ricardo Rail carried out the overall railway Independent Verification and Validation. Issued Certificate for Operation to state that the system was safe, had met the requirements and was compliant with the safety case. Provided assurance and confidence to the authorities and public.



Delivering Excellence Through Innovation and Technology

Procurement sprinters for NS

Ricardo Rail supported the Dutch Railways (NS) with the procurement of 131 Sprinter trainsets manufactured by Bombardier & Siemens. Supporting market research, specification development, supplier selection, contract management, design reviews, quality assessment, verification & validation and warranty support.



Delivering Excellence Through Innovation and Technology

Ricardo develop 350PS engine for new Ford Focus RS

Ricardo developed the upgrade to the Ford Focus RS Ecoboost 2.3L engine. With optimised engine performance, we partnered with the client's vehicle calibration team and provided systems engineering. The engine was launched very successfully with excellent press feedback.



Delivering Excellence Through Innovation and Technology

Ricardo & Proton collaborate on designing a new family of engines

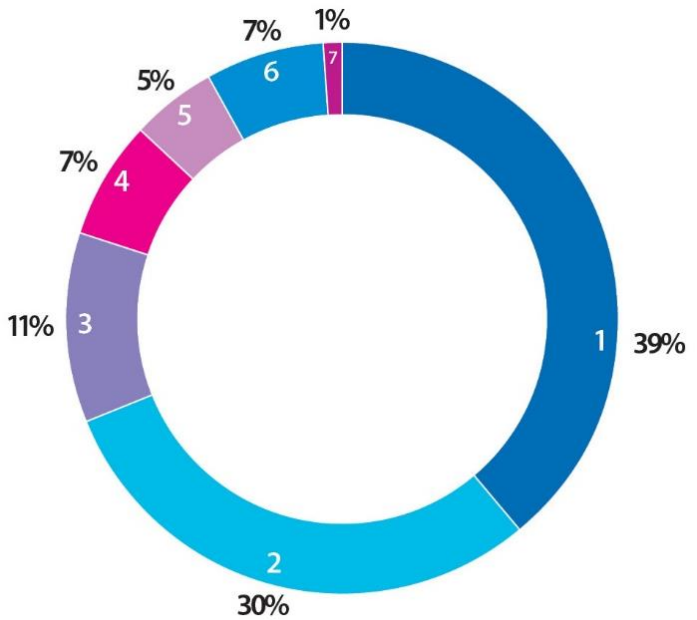
Ricardo provided technical leadership to develop a new family of engines ranging from 1.3L I4 NA DI to a 1.5L I4 TGDI to meet future legislative requirements, whilst meeting challenging engineering targets for cost, fuel consumption, performance, NVH, weight and packaging. First fire was achieved within 9 months of programme start.



A continued good balance of order intake and pipeline from across the globe

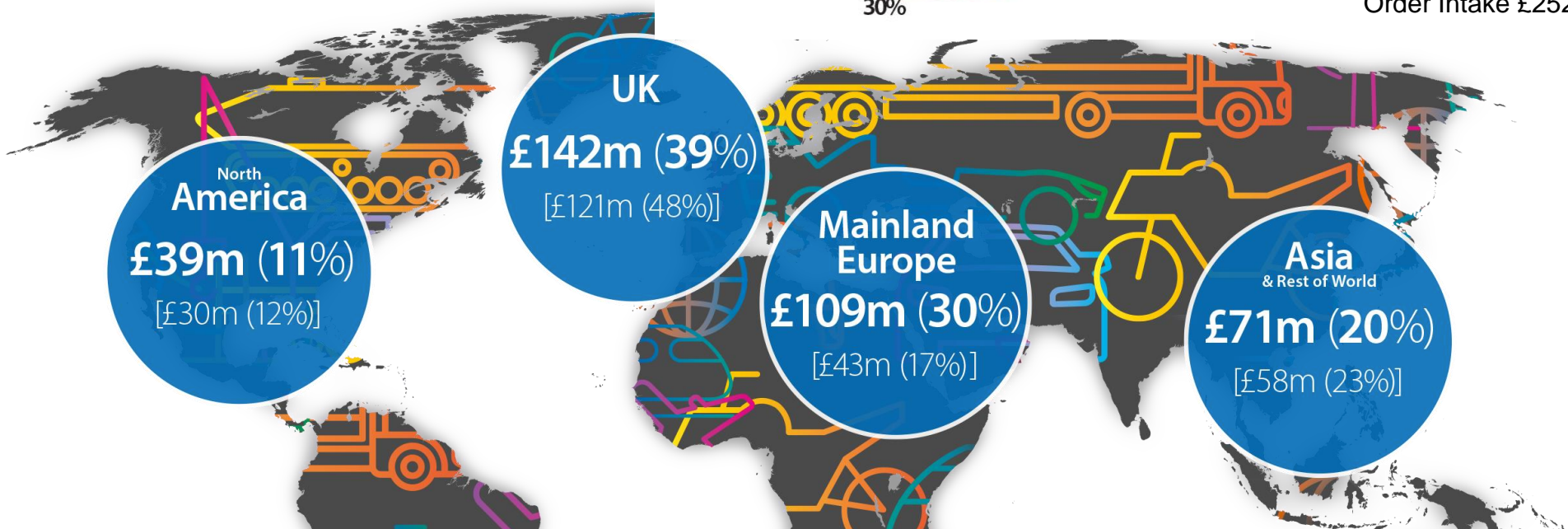


1. UK
2. Mainland Europe
3. North America
4. China
5. Japan
6. Rest of Asia
7. Rest of World



FY 2015/16
 Order Intake £361m

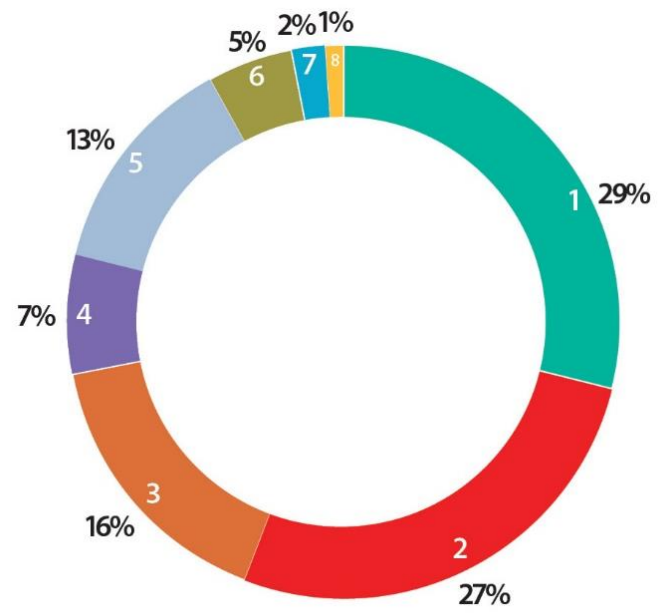
[FY 2014/15
 Order Intake £252m]



Well balanced market sector order intake with a strong year for High Performance Vehicles & Motorsport



1. Automotive
2. High Performance Vehicles & Motorsport
3. Rail
4. Commercial Vehicles
5. Energy & Environment
6. Defence
7. Motorcycle & Personal Transportation
8. Off Highway



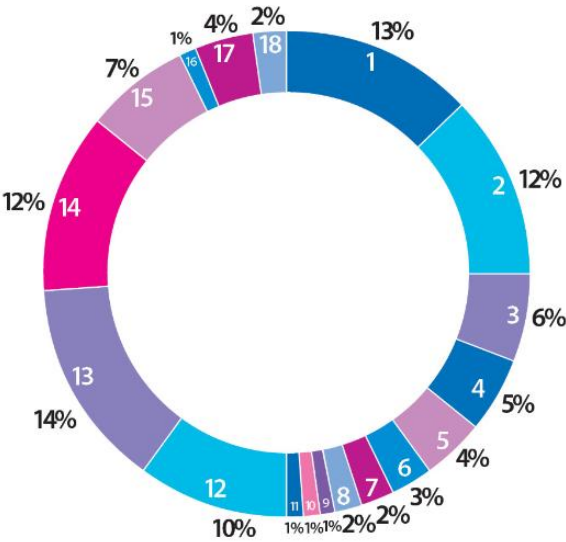
FY 2015/16
Order Intake £361m
 [FY 2014/15
 Order Intake £252m]

HPV&M	Rail	Defence	CV	E&E	Off-Highway	M&PT	Automotive
£97m [£33m]	£58m [£2m]	£19m [£8m]	£25m [£25m]	£47m [£50m]	£2m [£5m]	£8m [£13m]	£105m [£116m]

Diverse customer mix, with a good level of multi-year business

Our top 2 clients are long term Performance Products clients

Ricardo plc External Order Intake by Customer for Year Ended 30 June 2016



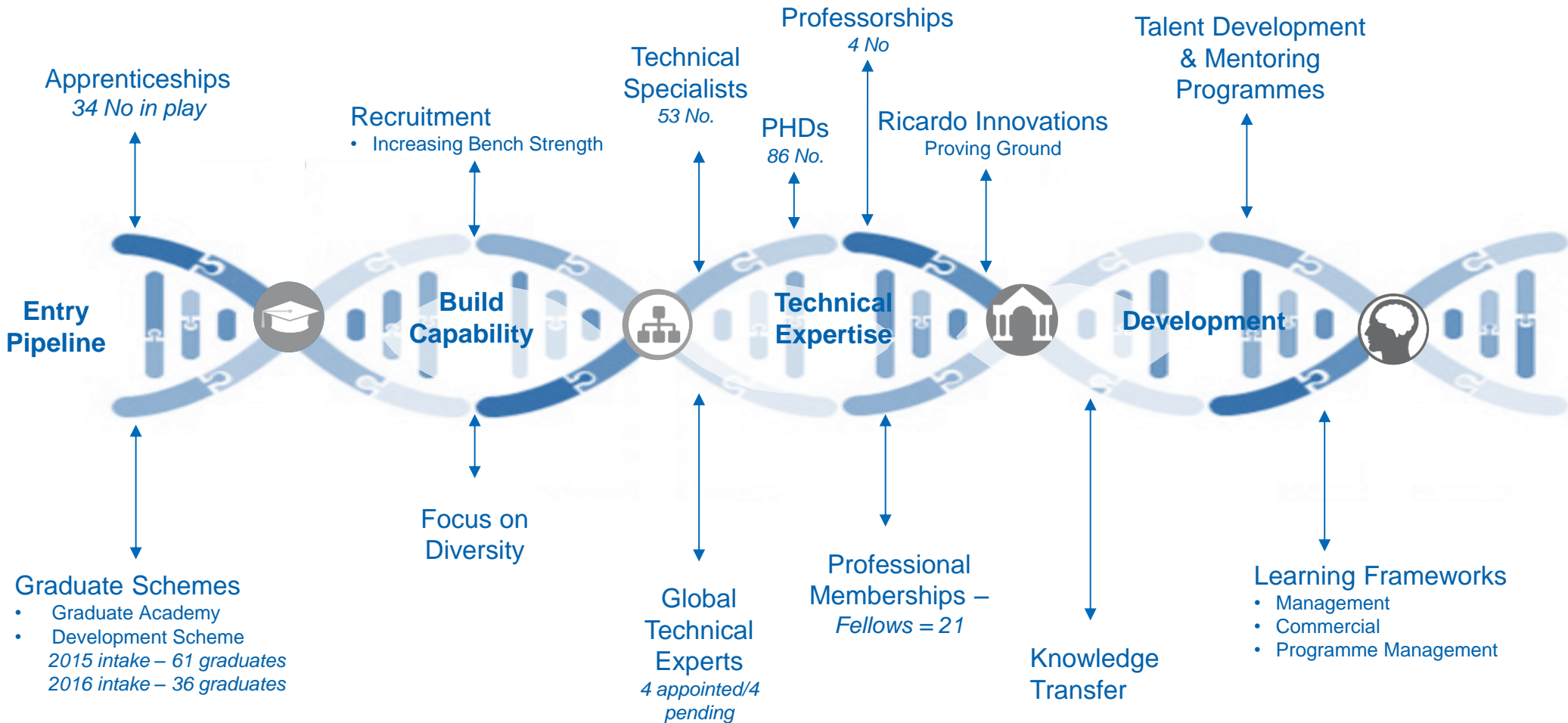
- 1. Key Client 1
- 2. Key Client 2
- 3. Key Client 3
- 4. Key Client 4
- 5. Key Client 5
- 6. Key Client 6
- 7. Key Client 7
- 8. Key Client 8
- 9. Key Client 9
- 10. Key Client 10
- 11. Key Client 11
- 12. Rest of UK
- 13. Rest of Asia
- 14. Rest of Europe
- 15. Rest of North America
- 16. Rest of World
- 17. UK Government
- 18. US Defense



FY 2015/16
Order Intake £361m
 [FY 2014/15
 Order Intake £252m]

R-People – talent acquisition and development

The Building Blocks for the future



Corporate Social Responsibility



It is our policy and objective to make a positive contribution to all countries and communities in which we operate.

Community engagement promoting STEM and diversity has been a key part of our employee involvement. A wide range of activities have been undertaken:

- Partnerships with secondary schools supporting curriculum delivery
- Robot challenge
- Rocket car race
- Most of our UK graduates are automatically enrolled as STEM ambassadors
- Sponsoring STEM events such as 'Big Bang South East' where c. 8,500 students attended
- Ricardo Software supporting university teaching with its products in 200 locations across 33 countries
- CREST engineering awards
- Industry seminars and open days
- Ricardo 'Give and Gain' day

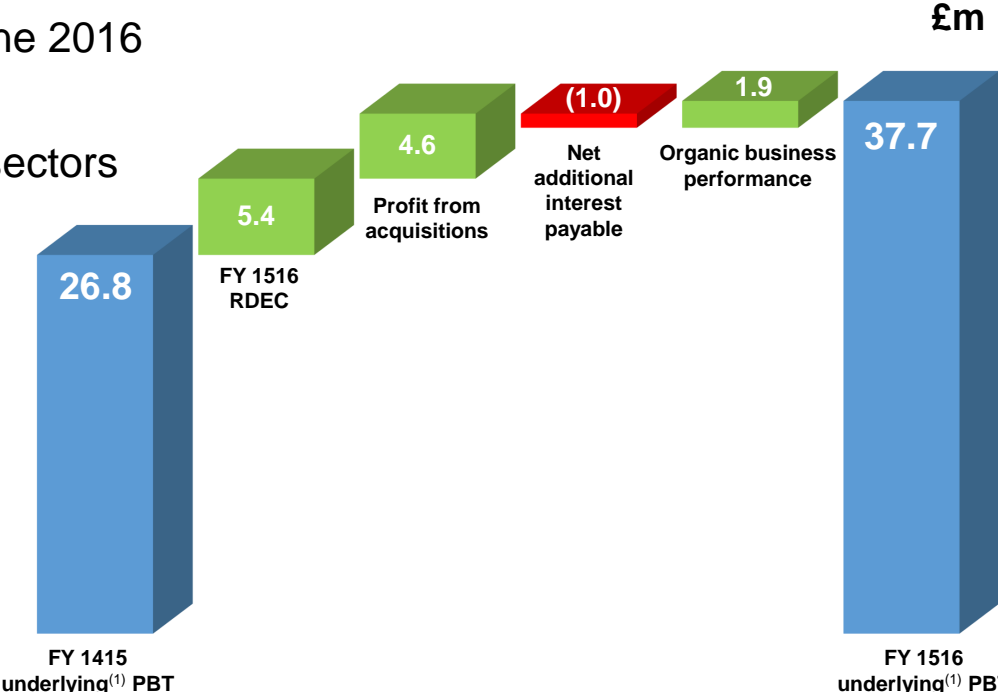


Summary for year and outlook



- Strong overall performance driven by acquisitions and organic growth
 - Orders up 43% to £361m (Jun 2015: £252m)
 - Revenue up 29% to £332.4m (Jun 2015: £257.5m)
 - Underlying⁽¹⁾ PBT up 41% to £37.7m (Jun 2015: £26.8m)

- Record year-end order book of £231m at end of June 2016
- Markets remain active across all geographies and sectors
- Business diversification continued
- A good platform for future growth



(1) excluding specific adjusting items, which comprise amortisation of acquired intangible assets, acquisition expenditure, and prior year RDEC claim



Income Statement – Underlying and total Group with current year RDEC split out



Year ended 30 June

£m	Year ended 30 June						Year-on-Year growth	
	2016 Underlying ⁽¹⁾	2016 Specific adjusting items	2016 Total	2015 Underlying ⁽¹⁾	2015 Specific adjusting items	2015 Total	Underlying ⁽¹⁾	Total
Revenue	332.4	-	332.4	257.5	-	257.5	29%	29%
Gross profit	126.5	-	126.5	101.8	-	101.8	24%	24%
Administration costs excl. RDEC	(92.3)	(4.7)	(97.0)	(74.1)	(3.9)	(78.0)	25%	24%
Operating profit excl. RDEC	34.2	(4.7)	29.5	27.7	(3.9)	23.8	23%	24%
Current period RDEC claim	5.4	-	5.4	-	-	-	-	-
Operating profit	39.6	(4.7)	34.9	27.7	(3.9)	23.8	43%	47%
Net finance costs	(1.9)	-	(1.9)	(0.9)	-	(0.9)	111%	111%
Profit before tax	37.7	(4.7)	33.0	26.8	(3.9)	22.9	41%	44%
Taxation charge	(8.6)	1.2	(7.4)	(4.6)	0.3	(4.3)	87%	72%
Profit for the year	29.1	(3.5)	25.6	22.2	(3.6)	18.6	31%	38%

⁽¹⁾ Specific adjusting items comprise acquisition expenditure, amortisation of acquired intangible assets and prior year RDEC claim

Specific adjusting items



£m	Year ended 30 June	
	2016	2015
Amortisation of acquisition-related intangible assets	3.4	1.3
Acquisition-related expenditure associated with LR Rail	1.6	2.1
Other acquisition-related expenditure	1.2	0.5
Income for claims under the RDEC scheme in respect of prior years	(1.5)	-
Total specific adjusting items	4.7	3.9

Year ended 30 June 2016

£m	Underlying ⁽¹⁾	Current Year	Underlying ⁽¹⁾
	pre RDEC	RDEC	post RDEC
Revenue	332.4	-	332.4
Gross profit	126.5	3.3	129.8
Administration costs	(92.3)	2.1	(90.2)
Operating profit	34.2	5.4	39.6
Net finance costs	(1.9)	-	(1.9)
Profit before tax	32.3	5.4	37.7
Taxation charge	(4.6)	(4.0)	(8.6)
Profit for the year	27.7	1.4	29.1

(1) excluding specific adjusting items, which comprise amortisation of acquired intangible assets, acquisition-related expenditure and prior year RDEC claim

Recent acquisitions completed



- LR Rail acquired on 1st July 2015 – 440 people Railway consultancy, assurance and engineering business
- Cascade acquired 18th August 2015 – 32 people UK water consultancy business, now an additional practice area of E&E
- Exnovo acquired on 29th July 2016 – 35 people Italian motorcycle, urban mobility and industrial design and engineering business

Company	Date Acquired	No. people	Cash Paid	Annualised	
				Revenue	Operating Profit
LR Rail	1 Jul 15	440	£46.3m	c. £50m	c. £4m
Cascade	18 Aug 15	32	£3.2m	c. £3.5m	c. £0.5m
Exnovo	29 Jul 16	35	€2.5m	c. €3m	c. €0.4m

Segmental results with RDEC allocated between Technical Consulting and Performance Products



Full year ended 30 June

£m	Revenue earned		Underlying operating profit ⁽¹⁾		Underlying operating profit ⁽¹⁾ margin	
	2016	2015	2016	2015	2016	2015
Technical Consulting	267.9	196.6	32.5	20.0	12.1%	10.2%
Performance Products	64.5	60.9	7.1	7.7	11.0%	12.6%
Total	332.4	257.5	39.6	27.7	11.9%⁽²⁾	10.8%

- (1) excluding specific adjusting items, which comprise amortisation of acquired intangible assets, acquisition-related expenditure and prior year RDEC claim £1.5m
 (2) total Group underlying operating profit margin excluding specific adjusting items and current year RDEC is 10.3%