Creating a world fit for the future

RICARDO

25 February 2020

Ricardo plc

Interim Report for the six months ended 31 December 2019

HIGHLIGHTS

- Order intake and revenue both up 3% on HY 2018/19 to £208.6m and £192.9m, respectively;
- Underlying profit before tax ('PBT') up 5% to £16.0m on HY 2018/19;
- Strong growth in Energy & Environment ('E&E') and Defense, together with our newly acquired Rail and E&E businesses in Australia, has more than offset continuing pressures in the global automotive sector;
- Acquired businesses have been integrated and are performing well;
- Good order intake at £208.6m, compared to £201.9m in HY 2018/19;
- Order book increased to £319.4m, up £5.6m on June 2019;
- Net debt at £73.8m (June 2019: £47.4m) predominantly reflecting purchase of the Detroit facility and the acquisition of PLC Consulting. Underlying cash conversion of 80.8%; and
- Interim dividend increased by 4% to 6.24p from 6.00p;
- Full year outlook impacted by further automotive slowdown and Coronavirus.

			% Change	
	HY 2019/20	HY 2018/19	Growth	Organic[(6)(7)]
Order intake (£m)	**208.6**	201.9	3	(20)
Order book (£m)	**319.4**	301.8	6	(29)
Revenue (£m)	**192.9**	188.1	3	(1)
Underlying[(1)]				
- Operating profit margin (%)	**9.3**	8.8	6	-
- Profit before tax (£m)	**16.0**	15.3	5	(4)
- Basic earnings per share[(2)] (p)	**23.0**	22.1	4	(7)
- Cash conversion[(3)] (%)	**80.8**	85.7	(6)	(4)
Statutory				
- Operating profit margin (%)	**5.3**	6.2	(15)	(21)
- Profit before tax (£m)	**8.3**	10.3	(19)	(29)
- Basic earnings per share (p)	**11.8**	14.6	(19)	(31)
- Cash conversion[(3)] (%)	**78.5**	81.9	(4)	(3)
Net debt[(4)] (£m)	**(73.8)**	(27.5)	(168)	n/a
Dividend per share (p)	**6.24**	6.00	4	n/a
Headcount[(5)] (no.)	**3,058**	2,972	3	(1)

References in superscript are defined in the glossary of terms on page 2.

Commenting on the results, Dave Shemmans, Chief Executive Officer, said:

"Overall, the Group has achieved a good set of results in the first half of the year, which is in line with our expectations. The performance of E&E and Defense has been excellent, underlining the importance of our strategy of diversification. Our new acquisitions have been integrated into the Group and are both performing well. This has helped to offset the continuing challenges in our automotive sector businesses, particularly in China, where order intake has suffered from challenging macro conditions.

As we start the second half of the year, we have seen increased headwinds in the automotive sector which we anticipate will lead to suppressed order intake in our US, EMEA and China Automotive businesses. The Coronavirus outbreak at the start of H2 has already had an operationally disruptive impact on our Automotive and Rail operations in China and we anticipate continuing disruption to client engagement, project delivery and business development in the coming months in mainland China and surrounding countries. Based on the issues highlighted above we are anticipating material impact to our forecast second half profits and thus full year."

About Ricardo plc

Ricardo is a global engineering, technical, environmental and strategic consultancy business. We also manufacture and assemble low-volume, high-quality and high-performance products and develop advanced virtual engineering tools for conventional and electrified powertrains as well as for complex physical systems.

Our ambition is to be the world's pre-eminent organisation focused on the design, development and application of solutions to meet the challenges within the markets of Transport & Security, Energy, and Scarce Natural Resources & Waste. Our mission is ***to create a world fit for the future***, and we will achieve this through the activities of our portfolio of businesses, each of them underpinned by our talented team of professionals.

Analyst and investor presentation

There will be a presentation for analysts and investors of the Group's interim results for the six months ended 31 December 2019 at 9:30am GMT in London on Thursday 27th February 2020. Copies of the presentation will be available online afterwards at https://ricardo.com/investors/financial-reporting/results-presentations.

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Cautionary Statement

Note: Certain statements in this press release are forward-looking. Although these forward-looking statements are made in good faith based on the information available to the Directors at the time of their approval of the press release, we can give no assurance that these expectations will prove to have been correct. Because these statements involve risks and uncertainties, actual results may differ materially from those expressed or implied by these forward-looking statements. We undertake no obligation to update any forward-looking statements whether as a result of new information, future events or otherwise.

Glossary of terms – cross-referenced to superscript in the financial tables and commentary

(1) Underlying measures exclude the impact on statutory measures of specific adjusting items as set out in Note 6. The notes to the condensed interim financial statements can be found on pages 17 to 29. Underlying measures are considered to provide a more useful indication of underlying performance and trends over time.

(2) Underlying earnings also exclude a tax credit to statutory earnings of £1.7m (HY 2018/19: £1.0m) for the specific adjusting items in Note 6.

(3) Statutory cash conversion is calculated as cash generated from operations divided by earnings before interest, tax, depreciation and amortisation ('EBITDA'). Underlying cash conversion is calculated as cash generated from operations, adjusted for the impact of specific adjusting items on operating cash, divided by EBITDA, adjusted for the cash impact of specific adjusting items, as set out in Note 6.

(4) Net debt, as set out in Note 14, is defined as current and non-current borrowings less cash and cash equivalents, including hire purchase agreements, but excluding any impact of IFRS 16 lease liabilities. The transitional impact of the adoption of IFRS 16 *Leases* is set out in Note 17. Management believes this definition is the best for monitoring the indebtedness of the Group and is consistent with the treatment in the Group's banking agreements.

(5) Headcount is calculated as the number of employees on the payroll at the reporting date and includes subcontractors on a full-time equivalent basis.

(6) The organic result for the prior period includes the performance of acquisitions on a like-for-like basis with HY 2019/20. Transport Engineering (now Ricardo Rail Australia, or 'RRA') was acquired on 31 May 2019. Had RRA been acquired and consolidated from 1 July 2018 such that results for HY 2018/19 were on a like-for-like basis with HY 2019/20, revenue for HY 2018/19 would have been £6.9m higher. Underlying operating profit for HY 2018/19 would have been £1.3m higher and underlying profit before tax for HY 2018/19 would have been £1.1m higher. PLC Consulting (now Ricardo Energy, Environment and Planning, or 'REEP') was acquired on 31 July 2019. Had REEP been acquired and consolidated from 31 July 2018 such that results for HY 2018/19 were on a like-for-like basis with HY 2019/20, revenue for HY 2018/19 would have been £0.8m higher. Underlying operating profit and profit before tax for HY 2018/19 would both have been £0.3m higher.

(7) Organic growth is calculated as the growth in the result for the current period compared to the organic result for the prior period and provides an indication of the growth of the business on a like-for-like basis with the prior period.

(8) Constant currency organic growth is calculated by reference to a result for the current period that is retranslated using foreign currency exchange rates applicable to the prior period and provides an indication of the growth of the business on a like-for-like basis with the prior period, excluding the impact of foreign exchange.

Trading summary

The Group has delivered growth in revenue and underlying profit before tax in line with the Board's expectations. There has been strong growth in Defense and E&E. Our recent acquisitions in E&E and Rail have performed well and in line with plan. This has more than offset continued challenges in our businesses selling into the automotive sector, particularly in the US and China, with China impacted by slowing economic growth and changing government incentive regimes. Across Europe, our Automotive & Industrial ('A&I') segment continues to be impacted by lower levels of activity.

Order intake up 3% on HY 2018/19 with closing order book up 2% on FY 2018/19

Order intake of £208.6m, represents growth of 3% on HY 2018/19. The closing order book was up 2% on the prior year-end to £319.4m (FY 2018/19: £313.8m). Order intake has been strong in Rail and E&E. This was partially offset by an expected reduction in Performance Products ('PP'), and the timing of Antilock Braking System ('ABS') and Electronic Stability Control ('ESC') system orders in Defense, having received a significant order in HY 2018/19.

Headline trading performance		Underlying[1]		Reported	
	Revenue	Operating profit	Profit before tax	Operating profit	Profit before tax
HY 2019/20 (£m)	**192.9**	**18.0**	**16.0**	**10.3**	**8.3**
HY 2018/19 (£m)	188.1	16.6	15.3	11.6	10.3
Add performance of acquisitions[6] (£m)	7.7	1.6	1.4	1.6	1.4
Organic HY 2018/19[6] (£m)	195.8	18.2	16.7	13.2	11.7
Growth (%)	**3**	**8**	**5**	**(11)**	**(19)**
Organic growth[7] (%)	**(1)**	**(1)**	**(4)**	**(22)**	**(29)**
Constant currency organic growth[8] (%)	**(2)**	**(1)**	**(4)**	**(20)**	**(27)**

References in superscript are defined in the glossary of terms on page 2.

Revenue up 3% on HY 2018/19

Revenues grew to £192.9m, a 3% increase HY 2018/19 (£188.1m). Organic revenue was 1% lower, after normalising the prior period result for the impact of the Transport Engineering (renamed Ricardo Rail Australia, or 'RRA') and PLC Consulting (renamed Ricardo Energy, Environment and Planning, or 'REEP') acquisitions in May 2019 and July 2019 respectively.

Underlying operating profit up 8% on HY 2018/19, with reported operating profit down 11%

Underlying operating profit, which excludes specific adjusting items, increased by 8% to £18.0m (HY 2018/19: £16.6m). Underlying operating profit margin increased to 9.3% (HY 2018/19: 8.8%), of which 0.3 percentage points (£0.6m) reflects the adoption of IFRS 16 *Leases* from 1 July 2019. Lease charges that were previously recognised within operating profit are now replaced with a combination of interest (recorded below operating profit) and depreciation costs.

Excluding IFRS 16, E&E, Rail, and Defense all delivered growth in operating profit and operating profit margin overall. This growth was partially offset by declines in the A&I and Strategic Consulting & Software segments. PP showed a marginal decline, reflecting anticipated reductions in production volumes. On an organic basis, underlying operating profit declined by 1% (4% excluding the impact of IFRS 16), reflecting the challenges in A&I segment, Strategic Consulting & Software and organic Rail, excluding RRA. HY 2019/20 reported operating profit was £10.3m (HY 2018/19: £11.6m), with the reduction driven by an increase in specific adjusting items, as set out below.

Underlying profit before tax up 5% on HY 2018/19, with reported profit before tax down 19%

Underlying profit before tax increased by 5% to £16.0m (HY 2018/19: £15.3m). On an organic underlying basis, profit before tax declined by 4%. On a constant currency basis, underlying and organic underlying profit before tax would both have been £0.1m higher. IFRS 16 had no impact on profit before tax.

HY 2019/20 reported profit before tax includes £7.7m of costs relating to specific adjusting items (HY 2018/19: £5.0m). The increase primarily reflects a £2.5m impairment charge to write down the value of the Detroit Technical Center ('DTC') facility to its fair value following its purchase for £14.2m in August 2019. £1.2m of other reorganisation costs were charged in HY 2019/20 (HY 2018/19: £1.3m), spread across the A&I segment (£0.8m of redundancy costs and professional fees for business transformation and asset sale processes) and Rail (£0.4m of redundancy costs incurred as a continuation of the restructuring process started in the second half of FY 2018/19).

Trading summary

Acquisition-related costs of £1.0m were incurred in HY 2019/20 (HY 2018/19: £0.5m), with the increase reflecting £0.5m of accruals in relation to earn-out payments, mainly for RRA and REEP. £3.0m of amortisation on acquired intangibles was charged in FY 2019/20 (HY 2018/19: £2.0m), with the increase reflecting the RRA and REEP acquisitions. HY 2018/19 specific adjusting items included a £1.2m charge for the equalisation of Guaranteed Minimum Pensions.

Taxation

The underlying effective tax rate was broadly in line with the prior period at 22.5% (HY 2018/19: 22.2%). The reported effective tax rate was 22.9% (HY 2018/19: 23.3%).

Earnings per share

Basic earnings per share declined by 19% to 11.8p (HY 2018/19: 14.6p). The Directors consider that an underlying earnings per share provides a more useful indication of underlying performance and trends over time. Underlying basic earnings per share for the period increased by 4% to 23.0p (HY 2018/19: 22.1p). Basic earnings per share, with a reconciliation to an underlying basic earnings per share, which excludes the net of tax impact of specific adjusting items, is disclosed in Note 7.

Dividend

As set out in more detail in Note 8, the Board has declared a 4% increase in the interim dividend to 6.24p per share (HY 2018/19: 6.00p), reflecting the growth in HY 2019/20 underlying profit before tax and the Board's confidence in the prospects of the Group. The dividend will be paid on 6 April 2020 to shareholders on the register at the close of business on 13 March 2020.

Net debt

Closing net debt was £73.8m (FY 2018/19: £47.4m). The Group had a net cash outflow for the period of £26.4m, driven by the acquisitions of the DTC facility (£14.2m), £5.6m of acquisition-related cash costs (including the purchase of REEP), and £1.2m of restructuring cash costs. The net cash outflow from working capital was £3.4m in the period (£3.3m excluding the impact of specific adjusting items). The composition of net debt is defined in Note 14.

Research and Development ('R&D') and capital investment

The Group continues to invest in R&D and spent £7.2m (HY 2018/19: £5.3m) before government grant income of £0.7m (HY 2018/19: £0.9m). Costs capitalised this period were £4.4m (HY 2018/19: £2.6m), reflecting our continued investment in our Software segment, together with new technology, tools and processes in our A&I and E&E segments. During HY 2019/20, we successfully completed the sale the Group's *CryoPower* intellectual property to FPT Industrial S.p.A.

Capital expenditure on property, plant and equipment, excluding right-of-use assets was £17.7m (HY 2018/19: £3.0m). Excluding the DTC facility purchase capital expenditure was £3.5m, reflecting continued investment in our business operations, including new and upgraded test cell equipment, machinery and IT equipment.

Brexit

Across the Group, we have prepared for a range of possibilities for Brexit and any disruption that may arise. Where possible we are now contracting with customers directly through our European-based subsidiaries and we have secured a European accreditation route for our Rail business to supplement our existing UKAS accreditation, which will allow us to continue to offer our services across Europe. We have also assessed inventory holding patterns for our McLaren production line and have appropriate plans in place to mitigate any short-term disruption to the supply chain.

Coronavirus ('COVID-19')

The outbreak of Coronavirus resulted in the closure of our and the majority of our customers' Chinese sites since the Chinese New Year holiday and travel restrictions on our staff. Our Shanghai, Hangzhou and Hong Kong offices opened on 24 February, but our Beijing, Chongqing and Changchun offices remain closed. This has resulted in a slowdown in both order intake and the progress of ongoing projects, due to the inefficiencies created through customer staff and our own staff having to work from home.

Being a people-based business, we have focused our response on the well-being of our employees to support those in China as well as those travelling to and from China. Our employees have responded very well, and we are maximising working from home and self-isolation for those who return from the extended Chinese New Year holiday. We are minimising business travel to and from China.

Work continues to understand the impact on our clients, contracts and pipeline in our Rail and automotive businesses. This is an ongoing process. We are also regularly assessing the supply chain for our Defense and PP businesses.

Although it is not possible at this time to fully assess the potential impact on the current financial year, we do expect the impact to be material. Our operations in China accounted for 8% of the Group's revenue in the first half of the year.

Trading summary

Group Outlook

As we start the second half of the year, we have seen increased headwinds in the automotive sector which we anticipate will lead to suppressed order intake in our US, EMEA and China Automotive businesses. The Coronavirus outbreak at the start of H2 has already had an operationally disruptive impact on our Automotive and Rail operations in China and we anticipate continuing disruption to client engagement, project delivery and business development in the coming months in mainland China and surrounding countries. Based on the issues highlighted above we are anticipating material impact to our forecast second half profits and thus full year.

Operating segments review

From HY 2019/20, in order to provide a better picture of the key drivers of performance, the Group has changed its segmental reporting from the historical Technical Consulting and Performance Products segments, to the six segments set out below.

For the six months ended 31 December	Revenue		Underlying[1] operating profit		Underlying[1] operating profit margin	
	2019	2018	**2019**	2018	**2019**	2018
	£m	£m	**£m**	£m	**%**	%
Energy & Environment ('E&E')	**23.6**	20.9	**3.0**	2.1	**12.7**	10.0
Rail	**38.9**	34.1	**2.7**	1.9	**6.9**	5.6
Automotive & Industrial ('A&I')	**59.0**	67.2	**5.2**	7.4	**8.8**	11.0
Defense	**17.6**	8.8	**2.9**	0.4	**16.5**	4.5
Performance Products ('PP')	**43.2**	45.9	**4.1**	4.3	**9.5**	9.4
Strategic Consulting & Software ('other')	**10.6**	11.2	**1.4**	2.1	**13.2**	18.8
Operating segments total	**192.9**	188.1	**19.3**	18.2	**10.0**	9.7
Plc costs	**-**	-	**(1.3)**	(1.6)	**-**	-
Total	**192.9**	188.1	**18.0**	16.6	**9.3**	8.8

References in superscript are defined in the glossary of terms on page 2.

E&E, Rail, A&I, Defense (excluding the ABS/ESC product), and the Strategic Consulting element of the Strategic Consulting & Software ('other') segment, were previously reported within the Technical Consulting operating segment. PP, the ABS/ESC product, and the software element of the Strategic Consulting & Software ('other') segment, were previously reported within the Performance Products operating segment. Plc costs includes the costs of running the public limited company. HY 2018/19 segmental analysis has been reported on a consistent basis to aid comparability.

Operating segments review

ENERGY & ENVIRONMENT ('E&E')

Ricardo's E&E segment helps solve some of the world's most complex environmental challenges and provides governments, public agencies and businesses with expertise and advisory services, based on robust scientific evidence and analysis. E&E's activities are global and accounted for 12% of the Group's revenue in HY 2019/20. With its team of 550 scientists, economists, consultants and support staff, E&E expertise spans a wide range of environmental disciplines, including electricity asset management, carbon and climate policy, resource efficiency, air quality and greenhouse gas management, water resources and management of chemical-related risk.

Financial and operational highlights

	HY 2019/20	HY 2018/19	Growth (%)	Organic[7] (%)
Order intake (£m)	**24.5**	20.1	22	17
Order book (£m)	**35.6**	33.1	8	7
Revenue (£m)	**23.6**	20.9	13	9
Underlying[1] operating profit (£m)	**3.0**	2.1	43	25
Underlying[1] operating profit margin (%)	**12.7**	10.0	27	15
Headcount[5] (no.)	**550**	470	17	14

References in superscript are defined in the glossary of terms on page 2.

During HY 2019/20, E&E's revenue grew by 13% to £23.6m (HY 2018/19: £20.9m) and underlying operating profit by 43% to £3.0m (HY 2018/19: £2.1m). The strongest organic growth in HY 2019/20 came from outside Europe, including Australia, Southern Africa, South-East Asia, and the Gulf Cooperation Council states, particularly around air quality and waste.

There is growing demand for E&E's waste and resources engineering services in the UK, which has developed alongside the rapid organic and acquisitive growth of E&E's activity in Australia. Following the acquisition of PLC Consulting (now REEP) in July 2019, the Melbourne-based team has been performing well in servicing the waste infrastructure and planning markets in the Australian state of Victoria. E&E have won numerous circular economy projects including Materials Flow Analyses ('MFA') in Queensland and New South Wales.

Demand from the energy sector has also been very strong, including the impact assessment of renewable energy technologies on the operations of multi-country power pools in Southern Africa. One of E&E's biggest wins in the period was the 'DC Share' Electricity Network Innovation Competition project, which involves the trial of a novel solution that shares capacity across existing distribution network substations, enabling more high-power electric vehicle chargers to be connected at lower cost.

Work with airports also continues to develop, including the development and implementation of airport sustainability plans. E&E has also seen high growth in extensive monitoring and assessment work on perfluoroalkyl and polyfluoroalkyl substances ('PFAS') and winter water and de-icer monitoring programmes.

Market trends and outlook

E&E's expectations for the second half of the year remain positive, with order book intake showing an increase of 8% on HY 2018/19. It is anticipated that the principal growth areas (waste & resources, air quality, energy, and chemical risk management) will continue to develop. E&E also expects new interest from international institutions, government, cities and businesses looking to identify what 'net zero' means in order to develop plans for them and their stakeholders. Ricardo has also received new interest in our *Taskforce on Financial-related Climate Disclosures* ('TCFD') initiative offering, which is provided to customers as a joint package with Ricardo's Strategic Consulting segment.

Operating segments review

RAIL

Ricardo serves the rail market through two separate businesses: a consultancy division that provides technical advice and an independent certification division that performs accredited assurance services. Both serve a similar geographic footprint across Europe, Asia-Pacific and the Middle East. Rail supports a client base that includes rail service operators, infrastructure managers, regulatory bodies and industry suppliers. Whilst strict rules determine that each business operates independently, both may draw resources from our pool of 630 rail engineers, technicians, auditors and support staff. Rail accounted for 20% of the Group's revenue in HY 2019/20.

Financial and operational highlights

	HY 2019/20	HY 2018/19	Growth (%)	Organic[7] (%)
Order intake (£m)	**51.4**	28.0	84	35
Order book (£m)	**115.4**	80.4	44	(2)
Revenue (£m)	**38.9**	34.1	14	(5)
Underlying[1] operating profit (£m)	**2.7**	1.9	42	(16)
Underlying[1] operating profit margin (%)	**6.9**	5.6	23	(12)
Headcount[5] (no.)	**630**	555	14	(3)

References in superscript are defined in the glossary of terms on page 2.

In HY 2019/20, Rail order intake was £51.4m, a growth of 84% on HY 2018/19, reflecting two significant multi-year programme wins in Australia and Korea. Rail delivered revenue of £38.9m and underlying operating profit of £2.7m, a growth of £4.8m and £0.8m on HY 2018/19 respectively. The first half of the year has seen mixed fortunes for the consultancy and assurance businesses. The Middle East, China, Australia and mainland European markets are buoyant and growing and we have delivered solid performances. However, consultancy activities in the UK and parts of Asia have been impacted by market changes that are requiring us to re-profile our capability to align with market demands, together with some disruption from the Hong Kong riots.

An early high-profile success was the award of a five-year contract to provide system engineering and assessment services for South Korea's Great Train Express (GTX), a new higher-speed commuter network to serve Seoul and its surrounding regions. Being a part-tunnelled, new build beneath the densely populated capital region, the project is similar in scope and complexity to London's Elizabeth Line ('Crossrail') and Ricardo can provide significant value and insight from its experience on this project.

Elsewhere, we commenced safety assurance work on the second stage of Etihad Rail's construction of a national rail network for the UAE. In northern Europe, we supported the delivery of a complex metro/freight mix line between Rotterdam and Hoek van Holland and helped the Danish infrastructure manager, Banedanmark, pass a key milestone in its long-term programme to upgrade the national signalling system to the European Railway Traffic Management System ('ERTMS') with its successful launch on a key eastern route.

The industry's increasing adoption of digital technologies – from communication-based signalling and remote condition monitoring to complex train management software – has led to the emergence of cyber security as a high-level concern. This is where Ricardo's Digital Resilience partnership with Roke has proved to be positive, enabling us to enter the market quickly with a specialist team dedicated to the rail sector. Rail's work on Bombardier's Aventra passenger train was one of the first examples of a major train manufacturer commissioning cyber security assessments to inform product design and testing processes, and we are now looking at opportunities to provide similar services for other aspects of the industry, such as signalling technologies.

The acquisition in May 2019 of Transport Engineering (now RRA), a Sydney-based rail consultancy of over 100 people, makes this our first year with a dedicated team based in the burgeoning Australia and New Zealand markets. There has been impressive growth in both pipeline and headcount since acquisition and plans are already in place to extend the team's capabilities to the wider Asia-Pacific region, particularly in technical disciplines such as safety engineering, Reliability, Availability, Maintainability and Safety ('RAMS') analysis, human factors analysis and rolling stock consultancy.

Market trends and outlook

Looking ahead, Rail is addressing the above-mentioned issues in the UK and parts of Asia. In addition, the Asia business is currently responding to the impact arising from the Coronavirus outbreak. Rail has a strong order book and pipeline of opportunities. More importantly, its diverse service portfolio – from system-wide assurance to niche operational concerns such as remote monitoring and digital resilience – means Ricardo has carved out a unique position within the industry as a specialist with expertise in some of its most complex and critical challenges. Work is underway to bring that model to new territories by emulating our successful entry into the Australian market.

Operating segments review

AUTOMOTIVE & INDUSTRIAL ('A&I')

Ricardo's A&I segment provides products and services that span the areas of hybrid and electric systems, electrification, engines, driveline and transmissions, testing, and vehicle engineering. A&I serves clients within the automotive, motorcycle, and off-highway & commercial vehicle sectors, together with clients in adjacent markets where our core capabilities apply. It accounted for 31% of the Group's revenue in HY 2019/20, with 1,180 staff based at both engineering and sales offices within the UK, US, Europe and Asia, mainly in China.

Financial and operational highlights

	HY 2019/20	HY 2018/19	Growth (%)
Order intake (£m)	**68.5**	70.1	(2)
Order book (£m)	**83.9**	91.0	(8)
Revenue (£m)	**59.0**	67.2	(12)
Underlying(1) operating profit (£m)	**5.2**	7.4	(30)
Underlying(1) operating profit margin (%)	**8.8**	11.0	(20)
Headcount(5) (no.)	**1,180**	1,270	(7)

References in superscript are defined in the glossary of terms on page 2.

Order intake in HY 2019/20 was £68.5m (HY 2018/19: £70.1m). The challenging economic and political conditions continued during the period: China's slowing economic growth, the trade tensions between the US and China, the Brexit debate together with the UK General Election, and reduced credit availability in India, all had an impact on customer activity and orders. Original equipment manufacturers have also continued to pursue significant cost-reduction programmes designed to maintain trading performance whilst protecting new product developments in all aspects of vehicle electrification, including mild-hybrids to full battery electric vehicles, and are making greater use of virtual product development.

Uncertainty in outsourcing trends has continued and the lower level of order intake had a consequent impact on revenues, which decreased from £67.2m to £59.0m, as well as on operational efficiency. A&I's underlying operating profit decreased from £7.4m to £5.2m, and the margin decreased from 11.0% to 8.8%. We continue with our initiatives to create a more flexible cost base. Ricardo purchased the DTC facility in August 2019 in order to extricate ourselves from a long-term lease on the property. The facility, including the Detroit engine testing assets, is currently being marketed for sale, with a view to repositioning our US business as a more operationally efficient consultancy.

During the period, A&I secured a range of programmes across our services, including vehicle, hybrid and electric systems. The demand for A&I's services in our off-highway & commercial vehicles market sector remained at a good level and activity within our motorcycle business has been particularly strong. Ricardo completed the sale of the *CryoPower* intellectual property to FPT Industrial S.p.A and will continue to assist with their development of this innovative and high-efficiency combustion engine.

During HY 2019/20, A&I produced a highly versatile and cost-effective demonstrator for general service defence purposes, adapted from Ford's iconic *Ranger* series, Europe's best-selling pick-up truck. In partnership with Roke, Ricardo launched a digital resilience assessment service for vehicles. A&I played a crucial role in the development of JCB's *Fastrac* tractor, which Guy Martin was shown powering to a new Guinness World Records' speed record on the Channel 4 documentary, *Guy Martin: The World's Fastest Tractor*.

Market trends and outlook

Carbon dioxide ('CO2') emissions targets continue to drive the global agenda, with industry increasing its investment in electrification and alternative energy propulsion, together with its digitalisation of processes and products. These trends provide a significant longer-term pipeline of opportunities for A&I through the provision of innovative solutions for clean, efficient and secure propulsion, to deliver future revenue and profit growth.

In the short-term, the prevailing economic uncertainty faced by the Automotive industry across the globe, together with the impact of the Coronavirus outbreak on our China operations, pose continued and additional headwinds to performance.

Operating segments review

DEFENSE

Defense, a US-based segment, is focused on creating a safe and secure world fit for the future through delivery of services, software, and products that protect life, reduce defence programme costs, and reduce waste. The technical professionals within our Defense segment work on future mobility challenges, disrupted communication environments, and improved processes to streamline the fielding, modification, maintenance and sustainment of complex systems. Defense delivered 9% of total Group revenue in HY 2019/20 with a headcount of 140.

Financial and operational highlights

	HY 2019/20	HY 2018/19	Growth (%)
Order intake (£m)	**13.7**	20.3	(33)
Order book (£m)	**14.7**	16.5	(11)
Revenue (£m)	**17.6**	8.8	100
Underlying(1) operating profit (£m)	**2.9**	0.4	625
Underlying(1) operating profit margin (%)	**16.5**	4.5	267
Headcount(5) (no.)	**140**	120	17

References in superscript are defined in the glossary of terms on page 2.

In HY 2019/20, operating profit grew significantly in comparison to the prior period, driven by growth in both the engineering services business and sales of the ABS/ESC system product. Order intake reduced from £20.3m in HY 2018/19 to £13.7m in HY 2019/20, which reflects the timing of ABS/ESC orders from the US government. Revenue increased to £17.6m in HY 2019/20 (HY 2018/19: £8.8m) and underlying operating profit increased to £2.9m (HY 2018/19: £0.4m), with underlying operating profit margin increasing from 4.5% to 16.5%. The margin was low in the prior period as costs were increased in preparation for the delivery of the secured ABS/ESC orders.

Underpinning our commitment to quality, Defense again achieved Capability Maturity Model Integration ('CMMI') Level 3 certification for its systems and software development processes that have earned a reputation for producing safe, reliable, precise, and cost-effective solutions for our customers. Ricardo designed, developed and integrated the ABS/ESC kit to address an ongoing High-Mobility Multipurpose Wheeled Vehicle ('HMMWV', or Humvee) rollover issue and it has been proven by the US Army to mitigate vehicle rollover and loss-of-control accidents. To date, the production team has delivered over 3,000 units to new HMMWV production vehicles.

The internally developed Mobile Fuel and Energy Management (MFEM) software provides dynamic visibility and management of liquid fuel. Through a simple glance at a handheld device, the system helps facilitate rapid, efficient decision making to ensure that personnel have the energy resources needed to attain their objectives. MFEM replaces manual procedures and calculations for fuel management with a fully automated process resulting in significantly improved speed, accuracy, and efficiency for field operations.

Market trends and outlook

The market outlook for Defense is positive. The US President's fiscal year 2020 Defense Budget of $750bn is $34bn above funds enacted in 2019. In July 2018, the US Army introduced a new 4-star Army Futures Command. For the first time, one command is driving concept development, requirements determination, organisation design, science and technology research, and solution development. This provides an opportunity for Defense to support the US Army's new disruptive acquisition process as Ricardo has a quicker, more agile approach.

The President's FY21 Defense budget was published in February 2020 and is in the public domain. ABS/ESC installation to HMMWV fielded fleet is included as part of "modification of in-service equipment" and the Ricardo National Stock Number is referenced. The FY21 budget specifies that 5,421 vehicles are included, with a value for HMMWV ABS/ESC retrofit kits of $71.7m, installation of $22m and $40m for HMMWV Ambulance upgrades including 871 ABS/ESC retrofit kits. The budget has been passed to Congress for consideration, review and potential amendment. This includes review by the House and Senate Armed Services Committees and Defense Appropriations subcommittees. The budget is expected to be finalised and approved in October 2020. Contract awards follows budget approval.

Operating segments review

PERFORMANCE PRODUCTS ('PP')

Ricardo's PP business manufactures and assembles high-quality prototypes and niche volumes of complex engine, transmission and vehicle products. It accounted for 22% of the Group's revenue in HY 2019/20. These products are designed either by PP's motorsport products design team, Ricardo's A&I segment, or by our customers. Our diverse portfolio of projects covers a number of clients including McLaren, Bugatti, Porsche, Aston Martin Lagonda, Moog Aerospace, Rolls Royce, BMW, PSA and a number of high-profile top-flight motorsport businesses. PP also operates in markets outside automotive and motorsport including aerospace and defence, power generation and rail. PPs' 310 staff deliver goods and services to its global customer base from its UK sites in Shoreham-by-Sea and Leamington Spa.

Financial and operational highlights

	HY 2019/20	HY 2018/19	Growth (%)
Order intake (£m)	**39.7**	49.9	(20)
Order book (£m)	**62.8**	70.7	(11)
Revenue (£m)	**43.2**	45.9	(6)
Underlying[(1)] operating profit (£m)	**4.1**	4.3	(5)
Underlying[(1)] operating profit margin (%)	**9.5**	9.4	1
Headcount[(5)] (no.)	**310**	320	(3)

References in superscript are defined in the glossary of terms on page 2.

During HY 2019/20, PP delivered revenue of £43.2m and an underlying operating profit of £4.1m, a reduction of 6% and 5% respectively on the prior period. Underlying operating profit margin was 9.5%, similar to the prior period. Engine supply continued to McLaren across a broad range of models including 600LT, GT, Senna and Speedtail from our dedicated facility in Shoreham-by-Sea. The Speedtail is McLaren's first-ever Hyper-GT, fitted with a Ricardo assembled V8 engine as part of a hybrid powertrain system that produces more than 1,000 horsepower. It is McLaren's fastest production car to date. From Leamington Spa, transmission deliveries continued for motorsport clients in Formula 1, Formula E, WRC, R5, GTE, GT3, Super Formula, Indy Lights and Heritage formulae. As anticipated, order intake and operating profit were lower than the prior period due to the phasing of both engine and transmission supply programmes. Preparations have continued through the first half of the year for two new significant transmission programmes that will enter series production in the later stage of the financial year.

Outside of the core markets of premium automotive and motorsport, PP delivered its 20,000th high precision aerospace component and began deliveries to the Ministry of Defence for the Combat Vehicle Reconnaissance (Tracked) ('CVR(T)') final drive programme.

Market trends and outlook

PP expects current trends to continue into the second half of the financial year. The PP business has a strong order book with sight of a good base load of demand over the next two to ten years, dependent on customer and platform. As our existing customers continue to invest significantly in new vehicle variants, we see positive growth in the coming years in our high-performance vehicle segment including hybrid and electrified powertrains, and we are well positioned to capitalise on emerging technologies in the automotive and motorsport market.

The expertise within the PP business, coupled with the synergies with Ricardo's other segments, gives a firm platform on which to develop further manufacturing and industrial engineering consultancy opportunities. In particular, we are working towards winning further premium automotive, motorsport, defence and aerospace projects in addition to securing new hardware opportunities in the rail sector.

Operating segments review

STRATEGIC CONSULTING AND SOFTWARE

Owing to their size, Ricardo Strategic Consulting ('RSC') and Ricardo Software are combined into a single 'all other segments' for reporting purposes within Note 4. Combined, these two divisions account for 6% the Group's revenue and have a headcount of 190. They are not material enough to require reporting within their own individual segments. A brief summary has been produced below in order to provide further understanding of the Group's activities in the period.

RSC is a leading management consultancy dedicated to serving the automotive, transportation, and mobility industries. We offer a comprehensive portfolio of services, advising global leaders on high-impact strategic issues and resolving operational challenges. RSC is uniquely positioned within the management consulting industry. Our professionals intersect the space between traditional engineering specialists and pure-play strategy consultants, enabling them to support our clients as technical strategists and trusted advisors on their most difficult challenges.

Ricardo Software aims to help customers solve problems through technology exploration and process innovation. We deliver advanced virtual engineering tools, supported by a team of technical experts, to global partners across automotive, rail, motorcycle, off-highway, defence, energy and environment industries. Our leading-edge simulation software enables users, quickly and accurately, to create, analyse and optimise complex physical systems - from initial concept to final design.

Financial and operational highlights

	HY 2019/20	HY 2018/19	Growth (%)
Order intake (£m)	**10.7**	13.4	(20)
Order book (£m)	**7.1**	10.1	(30)
Revenue (£m)	**10.6**	11.2	(5)
Underlying[1] operating profit (£m)	**1.4**	2.1	(33)
Underlying[1] operating profit margin (%)	**13.2**	18.8	(30)
Headcount[5] (no.)	**190**	180	6

References in superscript are defined in the glossary of terms on page 2.

In HY 2019/20, RSC experienced challenging market conditions in the US and China, but this was partially offset by the team's greater focus and success in the European market. Political uncertainty continued to impact the UK with the time taken to convert project leads lengthening over the previous period. However, investment in local sales expertise has generated new growth in the India and Asia markets. Overall, the global RSC order book remains volatile with both revenue and profitability down on the prior period's performance.

In HY 2019/20, Software order intake was below the prior period, driven by lower one-off perpetual license sales particularly in China due to the slowdown in the Chinese automotive market. License renewals were similar to the prior period. The order intake for application engineering and solutions has seen good growth in the period, which has partially offset the reduced order intake from one-off perpetual license sales.

Market trends and outlook

In response to changing client requirements, RSC is transforming itself into a more agile, scalable offering. We launched Ricardo-TRNTY (https://trnty.ricardo.com) in HY 2019/20, a new on-line portal. It provides new and existing clients with quality-checked expertise by drawing on Ricardo's global network of freelance consultants. This is a great opportunity to capitalise on shifting market requirements as we respond to the need to efficiently scale the business. RSC is also on a clear path to deliver a more balanced revenue model by focusing on digital knowledge sales via our eStore (https://estore.ricardo.com).

Within Software, the business strategy is focused on simulation and analysis diversification into other engineering domains whilst also modernising the Software business. This will include a move to offering consumption-based licensing models to complement our traditional annual lease and perpetual license business. The growth in solutions and application engineering work is also being catered for with increases in headcount to meet this demand.

Condensed interim financial statements

Condensed consolidated income statement
for the six months ended 31 December (unaudited)

	Note	2019 Underlying £m	2019 Specific adjusting items(*) £m	2019 Total £m	2018 Underlying £m	2018 Specific adjusting items(*) £m	2018 Total £m
Revenue	*4 & 5*	**192.9**	**-**	**192.9**	188.1	-	188.1
Cost of sales		**(126.6)**	**-**	**(126.6)**	(123.8)	-	(123.8)
Gross profit		**66.3**	**-**	**66.3**	64.3	-	64.3
Administrative expenses		**(48.8)**	**(7.7)**	**(56.5)**	(48.1)	(5.0)	(53.1)
Other income		**0.5**	**-**	**0.5**	0.4	-	0.4
Operating profit	*4*	**18.0**	**(7.7)**	**10.3**	16.6	(5.0)	11.6
Finance income		**0.2**	**-**	**0.2**	0.3	-	0.3
Finance costs		**(2.2)**	**-**	**(2.2)**	(1.6)	-	(1.6)
Net finance costs		**(2.0)**	**-**	**(2.0)**	(1.3)	-	(1.3)
Profit before taxation		**16.0**	**(7.7)**	**8.3**	15.3	(5.0)	10.3
Taxation		**(3.6)**	**1.7**	**(1.9)**	(3.4)	1.0	(2.4)
Profit for the period		**12.4**	**(6.0)**	**6.4**	11.9	(4.0)	7.9
Profit attributable to:							
- Owners of the parent		**12.3**	**(6.0)**	**6.3**	11.8	(4.0)	7.8
- Non-controlling interests		**0.1**	**-**	**0.1**	0.1	-	0.1
		12.4	**(6.0)**	**6.4**	11.9	(4.0)	7.9
Earnings per ordinary share attributable to owners of the parent during the period							
Basic	*7*			**11.8p**			14.6p
Diluted	*7*			**11.8p**			14.6p

(*) Specific adjusting items comprise amortisation of acquired intangible assets, acquisition-related expenditure, reorganisation costs and non-recurring items that are disclosed separately due to the significance of their nature or amount. Further details are given in Note 6.

Condensed consolidated statement of comprehensive income
for the six months ended 31 December (unaudited)

	2019 £m	2018 £m
Profit for the period	**6.4**	7.9
Other comprehensive income		
Items that will not be reclassified to profit or loss:		
Remeasurements of the defined benefit pension scheme	**0.8**	(3.9)
Deferred tax on remeasurements of the defined benefit pension scheme	**(0.1)**	0.7
Total items that will not be reclassified to profit or loss	**0.7**	(3.2)
Items that may be subsequently reclassified to profit or loss:		
Currency translation on foreign currency net investments	**(3.4)**	1.1
Fair value gains on foreign currency cash flow hedges	**(0.9)**	0.2
Total items that may be subsequently reclassified to profit or loss	**(4.3)**	1.3
Total other comprehensive loss for the period (net of tax)	**(3.6)**	(1.9)
Total comprehensive income for the period	**2.8**	6.0
Attributable to:		
- Owners of the parent	**2.7**	5.9
- Non-controlling interests	**0.1**	0.1
	2.8	6.0

The accompanying notes are an integral part of these condensed interim financial statements.

Condensed consolidated statement of financial position

	Note	31 December 2019 (Unaudited) £m	30 June 2019 (Audited) £m
Assets			
Non-current assets			
Goodwill	*10*	**84.0**	84.2
Other intangible assets		**40.2**	41.0
Property, plant and equipment		**44.9**	44.6
Right-of-use assets(*)	*11*	**24.7**	-
Investment properties(*)		**2.3**	-
Deferred tax assets		**7.1**	6.7
		203.2	176.5
Current assets			
Inventories		**18.0**	14.5
Trade, contract and other receivables		**129.3**	141.4
Derivative financial assets	*13*	**3.9**	0.3
Current tax assets		**1.3**	-
Cash and cash equivalents	*14*	**39.2**	36.3
		191.7	192.5
Non-current assets held for sale	*12*	**11.0**	2.9
		202.7	195.4
Total assets		**405.9**	371.9
Liabilities			
Current liabilities			
Borrowings	*14*	**(8.3)**	(4.0)
Lease liabilities(*)		**(6.5)**	-
Trade, contract and other payables		**(78.2)**	(84.8)
Current tax liabilities		**(0.9)**	(3.5)
Derivative financial liabilities	*13*	**(0.3)**	(1.2)
Provisions		**(1.5)**	(2.2)
		(95.7)	(95.7)
Net current assets		**107.0**	99.7
Non-current liabilities			
Borrowings	*14*	**(104.7)**	(79.7)
Lease liabilities(*)		**(23.3)**	-
Trade, contract and other payables		**(2.0)**	(5.1)
Retirement benefit obligations		**(5.5)**	(8.5)
Deferred tax liabilities		**(8.5)**	(7.3)
Provisions		**(3.6)**	(3.7)
		(147.6)	(104.3)
Total liabilities		**(243.3)**	(200.0)
Net assets		**162.6**	171.9
Equity			
Share capital		**13.4**	13.4
Share premium		**14.3**	14.3
Other reserves		**13.5**	16.9
Retained earnings		**120.9**	126.8
Equity attributable to owners of the parent		**162.1**	171.4
Non-controlling interests		**0.5**	0.5
Total equity		**162.6**	171.9

(*) The Group has adopted IFRS 16 *Leases* from 1 July 2019. The Group followed the modified retrospective transition approach to IFRS 16 where comparative information is not restated. For further information please see Note 17.

The accompanying notes are an integral part of these condensed interim financial statements.

Condensed consolidated statement of changes in equity

for the six months ended 31 December (unaudited)

	Attributable to owners of the parent						
	Share capital	Share premium	Other reserves	Retained earnings	Total	Non-controlling interests	Total equity
	£m	£m	£m	£m	£m	£m	£m
At 30 June 2019 (previously reported)	**13.4**	**14.3**	**16.9**	**126.8**	**171.4**	**0.5**	**171.9**
Adjustment on initial application of IFRS 16 (net of tax)(*)	**-**	**-**	**-**	**(4.0)**	**(4.0)**	**-**	**(4.0)**
At 1 July 2019 (adjusted)	**13.4**	**14.3**	**16.9**	**122.8**	**167.4**	**0.5**	**167.9**
Profit for the period	**-**	**-**	**-**	**6.3**	**6.3**	**0.1**	**6.4**
Other comprehensive loss for the period	**-**	**-**	**(3.4)**	**(0.2)**	**(3.6)**	**-**	**(3.6)**
Total comprehensive income for the period	**-**	**-**	**(3.4)**	**6.1**	**2.7**	**0.1**	**2.8**
Equity-settled transactions	**-**	**-**	**-**	**0.8**	**0.8**	**-**	**0.8**
Purchases of own shares to settle awards	**-**	**-**	**-**	**(0.6)**	**(0.6)**	**-**	**(0.6)**
Ordinary share dividends	**-**	**-**	**-**	**(8.2)**	**(8.2)**	**(0.1)**	**(8.3)**
At 31 December 2019 (unaudited)	**13.4**	**14.3**	**13.5**	**120.9**	**162.1**	**0.5**	**162.6**

	Attributable to owners of the parent						
	Share capital	Share premium	Other reserves	Retained earnings	Total	Non-controlling interests	Total equity
	£m	£m	£m	£m	£m	£m	£m
At 30 June 2018	13.4	14.3	15.7	124.4	167.8	0.4	168.2
Profit for the period	-	-	-	7.8	7.8	0.1	7.9
Other comprehensive income/(loss) for the period	-	-	1.1	(3.0)	(1.9)	-	(1.9)
Total comprehensive income for the period	-	-	1.1	4.8	5.9	0.1	6.0
Equity-settled transactions	-	-	-	0.6	0.6	-	0.6
Purchases of own shares to settle awards	-	-	-	(1.0)	(1.0)	-	(1.0)
Ordinary share dividends	-	-	-	(7.9)	(7.9)	-	(7.9)
At 31 December 2018 (unaudited)	13.4	14.3	16.8	120.9	165.4	0.5	165.9

(*) The Group has adopted IFRS 16 *Leases* from 1 July 2019. The Group followed the modified retrospective transition approach to IFRS 16 where comparative information is not restated. For further information please see Note 17.

The accompanying notes are an integral part of these condensed interim financial statements.

Condensed consolidated statement of cash flows
for the six months ended 31 December (unaudited)

	Note	2019 £m	2018 £m
Cash flows from operating activities			
Profit before tax		**8.3**	10.3
Adjustments for:			
Share-based payments		**0.8**	0.6
Fair value losses on derivative financial instruments		**(0.3)**	(1.3)
Profit on disposal of property, plant and equipment		**-**	(0.5)
Net finance costs		**2.0**	1.3
Depreciation, amortisation and impairment		**13.9**	7.7
Operating cash flows before movements in working capital		**24.7**	18.1
(Increase)/decrease in inventories		**(3.5)**	1.2
Decrease/(increase) in trade, contract and other receivables		**12.4**	(14.5)
(Decrease)/increase in trade, contract and other payables		**(11.5)**	12.6
Decrease in provisions		**(0.8)**	(0.5)
Defined benefit pension scheme payments in excess of past service costs		**(2.3)**	(1.0)
Cash generated from operations		**19.0**	15.9
Net finance costs		**(2.0)**	(1.1)
Tax paid		**(4.7)**	(2.6)
Net cash generated from operating activities		**12.3**	12.2
Cash flows from investing activities			
Acquisitions of subsidiaries, net of cash acquired		**(4.3)**	(1.7)
Purchases of property, plant and equipment		**(17.9)**	(3.0)
Proceeds from disposal of property, plant and equipment		**0.1**	3.0
Purchases of intangible assets and capitalised development costs		**(4.9)**	(3.2)
Net cash used in investing activities		**(27.0)**	(4.9)
Cash flows from financing activities			
Purchases of own shares to settle awards		**(0.6)**	(1.0)
Principal element of lease payments		**(2.3)**	-
Proceeds from settlement of derivatives		**0.7**	-
Proceeds from borrowings	*14*	**59.1**	15.0
Repayment of borrowings	*14*	**(34.0)**	(5.8)
Dividends paid to shareholders	*8*	**(8.3)**	(7.9)
Net cash generated from financing activities		**14.6**	0.3
Effect of exchange rate changes on cash and cash equivalents		**(1.3)**	0.2
Net (decrease)/increase in cash and cash equivalents	*14*	**(1.4)**	7.8
Net cash and cash equivalents at beginning of period		**32.4**	23.8
Net cash and cash equivalents at end of period		**31.0**	31.6

The accompanying notes are an integral part of these condensed interim financial statements.

Notes to the condensed interim financial statements
for the six months ended 31 December 2019 (unaudited)

1 General information
Ricardo plc (the 'Company'), a public company limited by shares, is listed on the London Stock Exchange and incorporated and domiciled in the United Kingdom. The address of its registered office is Shoreham Technical Centre, Shoreham-by-Sea, West Sussex, BN43 5FG, England, United Kingdom, and its registered number is 222915.

The condensed interim financial statements were approved for issue by the Board of Directors on 24 February 2020. These condensed interim financial statements have not been audited, but they have been subject to an independent review by KPMG LLP ('KPMG'), whose independent review report is included at the end of this report.

2 Basis of preparation
These condensed interim financial statements of the Company and its subsidiaries (together, the 'Group') for the six months ended 31 December 2019 do not comprise statutory accounts within the meaning of Section 434 of the Companies Act 2006. They have been prepared in accordance with the *Disclosure Guidance and Transparency Rules* of the United Kingdom's Financial Conduct Authority and IAS 34 *Interim Financial Reporting*, as adopted by the European Union.

These condensed interim financial statements should be read in conjunction with the financial statements for the year ended 30 June 2019 within the *Annual Report & Accounts 2018/19*, which were prepared in accordance with International Financial Reporting Standards ('IFRS'), IFRS Interpretations Committee ('IFRS IC') interpretations adopted by the European Union and the Companies Act 2006 applicable to companies reporting under IFRS. The *Annual Report & Accounts 2018/19*, which was approved by the Board of Directors on 11 September 2019 and delivered to the Registrar of Companies. The report of the auditors on those statutory accounts was unqualified, did not contain an emphasis of matter paragraph and did not contain any statement under Section 498 of the Companies Act 2006.

The accounting policies adopted within this Interim Report are consistent with the *Annual Report & Accounts 2018/19* except for the requirements of IAS 34 *Interim Financial Reporting* in respect of income tax and the adoption of IFRS 16 *Leases*. Taxes on income in the interim period are accrued using the tax rate that would be applicable to expected total annual profit or loss. The impact of the adoption of the new leasing standard and the new accounting policy are disclosed in Note 17.

At the time of approving these condensed interim financial statements, and having reassessed the principal risks and uncertainties of the Group, the Directors considered it appropriate to adopt the going concern basis of accounting in preparing the condensed interim financial statements.

3 Seasonality
Management does not consider the Group's business to be highly seasonal but based upon its experience, higher levels of revenue and profit are expected in the second half of each financial year. This is typically due to lower levels of annual leave and a greater number of chargeable hours, which equates to higher revenues on a predominantly fixed cost base, and therefore higher profits.

Notes to the condensed interim financial statements
for the six months ended 31 December 2019 (unaudited)

4 Operating segments

The Group's operating segments are being reported based on the financial information provided to the Chief Operating Decision Maker who is the Chief Executive Officer. The information reported includes financial performance but does not include the financial position of assets and liabilities. The operating segments were identified by evaluating the Group's products and services, processes, types of customers and delivery methods. From HY 2019/20, in order to provide more granularity in the key drivers of performance, the Group has changed its segmental reporting from the historical Technical Consulting and Performance Products segments, to the segments set out below:

- Energy & Environment ('E&E');
- Rail;
- Automotive & Industrial ('A&I');
- Defense; and
- Performance Products ('PP').

There is also an 'all other segments', which comprises the Group's Strategic Consulting ('RSC') and Software businesses. The operating segment section of this Interim Report provides further detail on the segments' performance.

Measurement of performance

Management monitors the financial results of its operating segments separately for the purpose of making decisions about allocating resources and assessing performance. Segmental performance is measured based on underlying operating profit, as this measure provides management with an overall view of how the different operating segments are managing their total cost base against the revenue generated from their portfolio of contracts. Included within Plc costs in the following tables are costs arising from a central Group function, including the costs of running the public limited company, which are not recharged to the other operating segments.

For the six months ended 31 December 2019	**E&E**	**Rail**	**A&I**	**Defense**	**PP**	**All other segments**	**Plc**	**Total**
	£m	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**
Total segment revenue	**25.1**	**39.0**	**60.5**	**17.6**	**44.2**	**11.2**	**-**	**197.6**
Inter-segment revenue	**(1.5)**	**(0.1)**	**(1.5)**	**-**	**(1.0)**	**(0.6)**	**-**	**(4.7)**
Revenue from external customers	**23.6**	**38.9**	**59.0**	**17.6**	**43.2**	**10.6**	**-**	**192.9**
Segment underlying operating profit	**3.0**	**2.7**	**5.2**	**2.9**	**4.1**	**1.4**	**-**	**19.3**
Plc costs	**-**	**-**	**-**	**-**	**-**	**-**	**(1.3)**	**(1.3)**
Underlying operating profit	**3.0**	**2.7**	**5.2**	**2.9**	**4.1**	**1.4**	**(1.3)**	**18.0**
Specific adjusting items(*)	**(0.8)**	**(2.7)**	**(3.3)**	**(0.2)**	**-**	**-**	**(0.7)**	**(7.7)**
Operating profit	**2.2**	**-**	**1.9**	**2.7**	**4.1**	**1.4**	**(2.0)**	**10.3**
Net finance costs								**(2.0)**
Profit before taxation								**8.3**

For the six months ended 31 December 2018	E&E	Rail	A&I	Defense	PP	All other segments	Plc	Total
	£m	£m	£m	£m	£m	£m	£m	£m
Total segment revenue	21.3	34.2	70.6	8.8	48.2	11.7	-	194.8
Inter-segment revenue	(0.4)	(0.1)	(3.4)	-	(2.3)	(0.5)	-	(6.7)
Revenue from external customers	20.9	34.1	67.2	8.8	45.9	11.2	-	188.1
Segment underlying operating profit	2.1	1.9	7.4	0.4	4.3	2.1	-	18.2
Plc costs	-	-	-	-	-	-	(1.6)	(1.6)
Underlying operating profit	2.1	1.9	7.4	0.4	4.3	2.1	(1.6)	16.6
Specific adjusting items(*)	(0.5)	(1.2)	(1.4)	(0.2)	-	-	(1.7)	(5.0)
Operating profit	1.6	0.7	6.0	0.2	4.3	2.1	(3.3)	11.6
Net finance costs								(1.3)
Profit before taxation								10.3

(*) See Note 6 for specific adjusting items, which represent a reconciliation between underlying performance and statutory performance.

5 Revenue

Disaggregation of revenue for the six months ended 31 December:	2019 £m	2018 £m
a) Revenue stream		
Services provided under:		
- fixed price contracts	**99.6**	104.3
- time and materials contracts	**36.1**	32.4
- Subscription and software support contracts	**3.2**	3.7
Goods supplied:		
- manufactured or assembled products	**49.2**	44.0
- software products	**3.8**	3.7
Intellectual property	**1.0**	-
Total	**192.9**	188.1
b) Customer location		
United Kingdom	**69.1**	77.3
Europe	**42.4**	46.3
North America	**33.8**	25.9
China	**13.6**	16.1
Rest of Asia	**16.9**	16.7
Australia	**10.2**	0.7
Rest of the World	**6.9**	5.1
Total	**192.9**	188.1
(c) Timing of recognition		
Over time	**142.4**	143.4
At a point in time	**50.5**	44.7
Total	**192.9**	188.1

Notes to the condensed interim financial statements
for the six months ended 31 December 2019 (unaudited)

6 Specific adjusting items

For the six months ended 31 December	2019 £m	2018 £m
Amortisation of acquired intangible assets[1]	**3.0**	2.0
Acquisition-related expenditure[2]	**1.0**	0.5
Reorganisation costs[3]	**3.7**	1.3
Guaranteed Minimum Pensions ('GMP') equalisation[4]	**-**	1.2
Total before tax	**7.7**	5.0
Tax credit on specific adjusting items	**(1.7)**	(1.0)
Total after tax	**6.0**	4.0

(1) Amortisation of acquired intangible assets have been classified as specific adjusting items due to their size and nature, being acquisition-related expenditure. On acquisition of a business, the purchase price is allocated to assets such as customer contracts and relationships. Amortisation occurs on a straight-line basis over its useful economic life, which is between 3 and 9 years. The increase in the period is due to the two recent acquisitions (see Note 9).

(2) Acquisition-related expenditure in the current and prior periods comprised earn-out and employee retention costs, accrued on a pro-rata basis, in relation to recently acquired businesses (see Note 9), together with integration costs and the costs of maintaining an internal acquisitions department.

(3) Reorganisation costs in the current period includes a net charge of £2.5m relating to the impairment, net of the extinguishment of an associated IFRS 16 lease liability, of the Detroit Technical Center ('DTC'). The freehold property, located at 40000 Ricardo Drive, Van Buren Township, Detroit, Michigan, 48111-1641, United States, was purchased for £14.2m (USD 17.3m) on 21 August 2019. The purchase of the facility removes the Group from its long-term lease commitment to October 2037 and the purchase price was predicated on its tenancy. The impairment, together with the extinguishment of the lease liability, has been classified as specific adjusting items due to the size and non-recurring nature of the transaction.

Since its purchase, DTC has been marketed for sale, together with the DTC engine test assets, which were held for sale as at 30 June 2019 (see Note 12).

Other reorganisation costs in the current period included external fees and contractor costs incurred in relation to the marketing of the DTC assets and transformation of the A&I operations in the UK. In addition, redundancy costs were incurred in relation to the completion of the fundamental restructuring of the A&I business (which accounted for all of the reorganisation costs in the prior period) and the ongoing restructuring operations in Rail.

(4) In October 2018, the High Court issued a judgement confirming that pension schemes are required to equalise male and female members' benefits for the effect of Guaranteed Minimum Pensions ('GMP'). The past service cost due to GMP equalisation is considered to be non-recurring in nature and significant in its amount.

Notes to the condensed interim financial statements
for the six months ended 31 December 2019 (unaudited)

7 Earnings per share

For the six months ended 31 December	2019 £m	2018 £m
Earnings attributable to owners of the parent	**6.3**	7.8
Add back the net-of-tax impact of:		
- Amortisation of acquired intangible assets	**2.4**	1.6
- Acquisition-related expenditure	**0.8**	0.4
- Reorganisation costs	**2.8**	1.0
- Guaranteed Minimum Pensions ('GMP') equalisation	**-**	1.0
Underlying earnings attributable to owners of the parent	**12.3**	11.8

For the six months ended 31 December	2019 Number of shares millions	2018 Number of shares millions
Basic weighted average number of shares in issue	**53.4**	53.4
Effect of dilutive potential shares	**-**	0.2
Diluted weighted average number of shares in issue	**53.4**	53.6

Earnings per share	2019 pence	2018 pence
Basic	**11.8**	14.6
Diluted	**11.8**	14.6

Underlying earnings per share	2019 pence	2018 pence
Basic	**23.0**	22.1
Diluted	**23.0**	22.0

Underlying earnings per share is also shown because the Directors consider that this provides a more useful indication of underlying performance and trends over time.

8 Dividends

For the six months ended 31 December	2019 pence/share	2018 pence/share	2019 £m	2018 £m
Amounts distributed in the period for FY 2018/19	**15.28p**	14.71p	**8.2**	7.9
Interim dividend declared for FY 2019/20	**6.24p**	6.00p	**3.3**	3.2

The Directors have declared an interim dividend of 6.24p per share, which will be paid on 6 April 2020 to shareholders who are on the register of members at the close of business on 13 March 2020.

A dividend of £0.1m was issued during the period to a non-controlling interest.

9 Acquisitions

(a) Acquisitions in the current period - PLC Consulting

On 31 July 2019, the Group acquired the entire issued share capital of PLC Consulting Pty Ltd ('PLC Consulting') for initial cash consideration of £4.2m (AUD 7.4m), which includes an adjustment for cash and normalised net working capital of £0.3m (AUD 0.4m), paid in November 2019.

PLC Consulting is an Australian firm with a strong technical advisory capability across the project life cycle in infrastructure, environment and planning, including supporting the environmental requirements of master-planning, business cases, procurement, design, construction and operation. PLC Consulting was renamed Ricardo Energy Environment and Planning ('REEP') on 5 August 2019. The following tables set out the provisional fair value of cash consideration payable to acquire PLC Consulting, together with the provisional assessment of the fair value of net assets acquired.

Provisional fair value of cash consideration	£m
Initial cash consideration	4.2
Total provisional fair value of cash consideration	**4.2**

Provisional assessment of the fair value of identifiable net assets acquired	£m
Customer contracts and relationships	1.3
Trade, contract and other receivables	0.5
Cash and cash equivalents	0.4
Trade, contract and other payables	(0.2)
Deferred tax liabilities	(0.4)
Total provisional assessment of the fair value of identifiable net assets acquired	**1.6**
Goodwill	2.6
Total provisional fair value of cash consideration	**4.2**

The maximum contingent cash payable is £1.4m (AUD 2.6m). The amounts payable will be based on the achievement of a range of annual performance targets measured against the earnings before interest, tax, depreciation and amortisation of PLC Consulting across a two-year earn-out period. These payments are dependent upon the continuing employment of the sellers in the business and are not considered to be consideration. £0.2m (AUD 0.4m), representing a pro-rata accrual for the fair value of the expected year one payment, has been accrued within specific adjusting items (see Note 6).

Provisional adjustments have been made for the recognition of customer-related intangible assets separable from goodwill amounting to £1.3m (AUD 2.4m), but have not yet been made to other identifiable net assets acquired to reflect their fair value. The provisional assessment of net assets acquired is based upon available financial information and may be adjusted in future in accordance with the requirements of IFRS 3 *Business Combinations* and the sale and purchase agreement.

The provisional assessment of goodwill arising on acquisition can be ascribed to the existence of a skilled, active workforce, developed expertise and processes and the opportunities to obtain new contracts and develop the business. None of these meet the criteria for recognition as intangible assets separable from goodwill. None of the goodwill recognised on consolidation is expected to be deductible for tax purposes.

The provisional assessment of net assets acquired of £1.6m (AUD 3.0m) includes trade receivables of £0.5m (AUD 0.9m), all of which is expected to be collectible.

The revenue included in the income statement in relation to the acquired business was £1.2m. The underlying operating profit over the same period was £0.4m. This is reported in the E&E segment in Note 4.

Had PLC Consulting been acquired and consolidated from 1 August 2018, revenue and operating profit in the prior period income statement would have been £0.9m and £0.3m higher, respectively.

Notes to the condensed interim financial statements
for the six months ended 31 December 2019 (unaudited)

(b) Acquisitions in the prior year - Transport Engineering
On 31 May 2019, the Group acquired the entire issued share capital of Transport Engineering Pty Ltd ('Transport Engineering') for initial cash consideration payable of £21.7m (AUD 39.5m) which includes an adjustment for cash and normalised net working capital of £0.5m (AUD 0.9m) paid in August 2019, together with the accrued provisional fair value of contingent cash consideration payable of £5.1m (AUD 9.4m).

Transport Engineering is a leading rail technical services consultancy based in Australia. It expands the Group's existing capabilities within the growing Asia-Pacific rail market and provides a footprint for other Ricardo businesses in Australia. Transport Engineering was renamed Ricardo Rail Australia ('RRA') on 11 June 2019. The following tables set out the provisional fair value of cash consideration payable to acquire Transport Engineering, together with the provisional assessment of the fair value of net assets acquired.

Provisional fair value of cash consideration	£m
Initial cash consideration	21.7
Provisional fair value of contingent cash consideration	5.1
Total provisional fair value of cash consideration	**26.8**

Provisional assessment of the fair value of identifiable net assets acquired	£m
Customer contracts and relationships	9.7
Property, plant and equipment	0.1
Trade, contract and other receivables	2.3
Cash and cash equivalents	2.3
Trade, contract and other payables	(1.7)
Current tax liabilities	(0.9)
Deferred tax liabilities	(2.9)
Total provisional assessment of the fair value of identifiable net assets acquired	**8.9**
Goodwill	17.9
Total provisional fair value of cash consideration	**26.8**

The Group also acquired all of Transport Engineering's shareholding in its associate, Wamarragu Transport Services Pty Ltd, the financial results of which are immaterial to the Group.

The cash impact of the acquisition in the prior year was £18.9m (AUD 34.4m), being the initial cash consideration of £21.2m (AUD 38.6m) paid on completion, less cash acquired of £2.3m (AUD 4.2m). £0.5m (AUD 0.9m) was paid for cash and normalised net working capital in the current period. The maximum contingent cash consideration payable is £8.1m (AUD 15.0m). The amounts payable will be based on the achievement of annual performance targets measured against the profit before tax of Transport Engineering across a two-year earn-out period. Each earn-out is only payable in full if the performance target is achieved. £0.2m has been accrued within specific adjusting items (see Note 6) in the current period reflecting the unwind of the discount applied to the fair value of the deferred consideration.

Provisional adjustments have been made to identifiable net assets acquired to reflect their fair value. These include the recognition of customer-related intangible assets separable from goodwill amounting to £9.7m (AUD 17.8m). The provisional fair values of contingent cash consideration and identifiable net assets acquired may be adjusted in future in accordance with the requirements of IFRS 3 *Business Combinations* and the sale and purchase agreement.

The provisional assessment of goodwill arising on acquisition can be ascribed to the existence of a skilled, active workforce, developed expertise and processes and the opportunities to obtain new contracts and develop the business. None of these meet the criteria for recognition as intangible assets separable from goodwill. None of the goodwill recognised on consolidation is expected to be deductible for tax purposes.

The provisional assessment of the fair value of trade, contract and other receivables acquired of £2.3m (AUD 4.2m) included trade receivables of £0.3m (AUD 0.6m) and amounts recoverable on contracts of £1.8m (AUD 3.2m), all of which have been collected.

Had Transport Engineering been acquired and consolidated from 1 July 2018, revenue and underlying operating profit in the income statement in the prior period would be £6.9m and £1.3m higher, respectively.

10 Goodwill

Movement in goodwill	31 December 2019 £m	30 June 2019 £m
At 1 July	**84.2**	65.5
Acquisition of business (Note 9)	**2.6**	17.9
Exchange adjustments	**(2.8)**	0.8
At period end	**84.0**	84.2

Goodwill by operating segment	31 December 2019 £m	30 June 2019 £m
Energy & Environment ('E&E')	**15.8**	13.3
Rail	**44.3**	46.0
Automotive & Industrial ('A&I')	**19.4**	20.3
Defense	**3.4**	3.5
Performance Products ('PP')	**1.1**	1.1
At period end	**84.0**	84.2

11 Right-of-use assets

The Group adopted IFRS 16 *Leases* from 1 July 2019. This requires the recognition of right-of-use assets, which are leased assets the Group has the right to use for the term of the respective lease. This does not include hire purchase assets, which continue to be recognised within plant, property and equipment. For further information please see Note 17.

	Property £m	Plant and machinery £m	Fixtures, fittings and equipment £m	Total £m
Cost				
At 30 June 2019	-	-	-	-
Impact on adoption of IFRS 16 (Note 17)	52.6	0.8	0.3	53.7
At 1 July 2019	52.6	0.8	0.3	53.7
Additions	-	0.1	-	0.1
Disposals	(20.3)	-	-	(20.3)
At 31 December 2019	**32.3**	**0.9**	**0.3**	**33.5**
Accumulated depreciation and impairment				
At 30 June 2019	-	-	-	-
Impact on adoption of IFRS 16 (Note 17)	15.9	-	-	15.9
At 1 July 2019	15.9	-	-	15.9
Charge for the period	2.5	0.2	-	2.7
Disposals	(9.8)	-	-	(9.8)
At 31 December 2019	**8.6**	**0.2**	**-**	**8.8**
Net book value				
At 31 December 2019	**23.7**	**0.7**	**0.3**	**24.7**
At 1 July 2019	36.7	0.8	0.3	37.8
At 30 June 2019	-	-	-	-

The disposal of the right-of-use asset for leased property arose from to the Group's purchase of the freehold property at DTC, as set out in Notes 6 and 12.

Notes to the condensed interim financial statements
for the six months ended 31 December 2019 (unaudited)

12 Non-current assets held for sale

	31 December 2019 £m	30 June 2019 £m
Freehold land and buildings	**7.9**	-
Plant and machinery	**3.1**	2.9
At period end	**11.0**	2.9

In January 2019, the Directors made a decision to commence a process to market actively the test cell assets at DTC for sale, which had a net book value of £2.9m (USD 3.7m).

As explained in Note 6, on 21 August 2019, the Group purchased the freehold property of DTC for £14.2m (USD 17.3m). Subsequently, the Group commenced a process to market the newly acquired freehold property together with the DTC test assets that were previously held for sale at 30 June 2019 as a single disposal group. During the period the Group continued to invest in these test cell assets to improve their desirability, increasing the held for sale net book value to £3.1m (USD 4.1m). The freehold property was assessed for impairment as part of being classified as held for sale and impaired to £8.6m (USD 10.5m). The value at 31 December 2019 was £7.9m (USD 10.5m) due to foreign exchange.

The disposal of these assets will provide the flexibility to realign the cost base of the A&I segment in the US with its strategy to become a more operationally efficient consultancy.

13 Fair value of financial assets and liabilities

There are no differences between the fair value of financial assets and liabilities included within the following categories in the Condensed Consolidated Statement of Financial Position and their carrying value:

- Trade, contract and other receivables;
- Derivative financial assets;
- Cash and cash equivalents;
- Trade, contract and other payables; and
- Derivative financial liabilities

Derivative financial assets of £3.9m (30 June 2019: £0.3m) and derivative financial liabilities of £0.3m (30 June 2019: £1.2m) relate to foreign exchange forward and swap contracts, which are Level 2 of the fair value hierarchy within IFRS 13 *Fair Value Measurement*. The Group use derivative financial instruments primarily to manage currency risk on its US Dollar, Euro, Chinese Renminbi, Japanese Yen, Hong Kong Dollar and Australian Dollar denominated receivables and payables from its subsidiaries, in addition to managing transactional exposures relating to customer contracts denominated in foreign currencies. It is the Group's policy not to undertake any speculative currency transactions.

14 Net debt

Net debt is defined as current and non-current borrowings less cash and cash equivalents, including hire purchase agreements, but excluding any impact of IFRS 16 lease liabilities. Management believe this definition is the best for monitoring the indebtedness of the Group and is consistent with the treatment in the Group's banking agreements.

Analysis of net debt	**31 December 2019 £m**	30 June 2019 £m
Current assets - cash and cash equivalents:		
- Cash and cash equivalents	**39.2**	36.3
Total	**39.2**	36.3
Current liabilities - borrowings:		
- Bank overdrafts repayable on demand	**(8.2)**	(3.9)
- Hire purchase lease liabilities maturing within one year	**(0.1)**	(0.1)
- Other loans maturing within one year	**-**	-
Total	**(8.3)**	(4.0)
Non-current liabilities - borrowings:		
- Hire purchase lease liabilities maturing after one year	**(0.5)**	(0.6)
- Bank loans maturing after one year	**(104.2)**	(79.1)
Total	**(104.7)**	(79.7)
At period end	**(73.8)**	(47.4)

Movement in net debt	**31 December 2019 £m**	30 June 2019 £m
Net debt at beginning of period	**(47.4)**	(26.1)
(Decrease)/increase in cash and cash equivalents, and bank overdrafts	**(1.4)**	8.6
Repayments of/(proceeds from) hire purchase lease	**0.1**	(0.7)
Proceeds from bank loans	**(59.1)**	(64.0)
Repayments of bank loans	**34.0**	34.8
At period end	**(73.8)**	(47.4)

Net debt at 31 December 2019 was £73.8m (FY 2018/19: £47.4m). As reported to the Board on a monthly basis, there is sufficient headroom in our banking facilities. At 31 December 2019 the Group held total facilities of £165.9m (FY 2018/19: £166.4m), which included committed facilities of £150.0m, which provides the Group with sufficient funding through to July 2023 to support future acquisitions, strategic investments and new projects, as well as the Group's ongoing working capital requirements. As at 31 December 2019, £104.2m of the committed facilities were drawn (FY 2018/19: £79.1m).

15 Contingent liabilities

In the ordinary course of business, the Group has £7.6m (30 June 2019: £7.3m) of possible obligations for bonds, guarantees and counter-indemnities placed with our banking institutions primarily relating to performance under contracts with customers. These possible obligations are contingent on the outcome of uncertain future events which are considered unlikely to occur. The Group is also involved in commercial disputes and litigation with some customers, which is also in the normal course of business. Whilst the result of such disputes cannot be predicted with certainty, the ultimate resolution of these disputes is not expected to have a material effect on the Group's financial position or results.

In July 2013, a guarantee was provided to the Ricardo Group Pension Fund ('RGPF') of £2.8m in respect of certain contingent liabilities that may arise, which have been secured on specific land and buildings. The outcome of this matter is not expected to give rise to any material cost to the Group.

In October 2018, a further guarantee was provided to the RGPF for an amount that shall not exceed the employers' liability were a debt to arise under Section 75 of the Pensions Act 1995. The guarantee will terminate on 5 April 2023. The outcome of this matter is not expected to give rise to any material cost to the Group on the basis that the Group continues as a going concern.

16 Principal risks and uncertainties

The Board regularly reviews its principal risks and uncertainties, including those relating to Brexit. To ensure our risk process drives continuous improvement across the business, we monitor the ongoing status and progress of key action plans against each risk on a half-yearly basis. Risk is a key consideration of the Board in all strategic decisions. In the most recent risk review cycle, risks were reviewed which relate to customers and markets; contracts; people; technology; compliance with laws and regulations; the defined benefit pension scheme; financing; and cyber risk, and these included the continued consideration of the potential impact of Brexit. The approach to mitigation of these principal risks is discussed on pages 45 and 46 of the Group's *Annual Report & Accounts 2018/19*, and the Directors have concluded that the disclosure remains appropriate. These principal risks and uncertainties should be read in conjunction with the highlights, trading summary and operating segments review for the six months ended 31 December 2019 included within this Interim Report.

17 Changes in significant accounting policies

IFRS 16 *Leases*

This note explains the impact of the adoption of IFRS 16 *Leases* on the Group's financial statements, the transition method and also discloses the new accounting policies, critical judgements and key estimates that have been applied from 1 July 2019.

IFRS 16 *Leases* replaces IAS 17 *Leases* and provides a single model for lessees which recognises a right-of-use asset and an associated lease liability for future lease payments for all leased assets for periods longer than one year or which are not classified as low value. The distinction between operating and finance leases is removed.

Transition method

The Group adopted the modified retrospective approach to transition, with the option being taken to recalculate the value of eight materially significant leased property assets while recognising the remaining leased assets at an amount equal to the liability on transition, adjusted for any prepaid or accrued lease expenses. Under this approach the Group has not restated comparative financial information, which remains presented under IAS 17. For the eight leased property assets which have been recalculated, the Group has elected to measure the right-of-use asset as if IFRS 16 had been applied since the start of the lease, but using the incremental borrowing rate at 1 July 2019, with the difference between the right-of-use asset and the lease liability taken to retained earnings on transition.

The Group has elected to adopt the following practical expedients on transition:

- not to capitalise a right-of-use lease asset or related lease liability where the lease expires before 30 June 2020;
- not to reassess contracts to determine if the contract contains a lease nor to separate lease and non-lease components;
- to use hindsight in determining the lease term;
- to exclude initial direct costs from the measurement of the right-of-use asset; and
- to apply the portfolio approach where a group of leases has similar characteristics.

Notes to the condensed interim financial statements
for the six months ended 31 December 2019 (unaudited)

Accounting policy

The Group's accounting policy for leases under IAS 17 *Leases* was disclosed in Note 1(j) to the financial statements in the *Annual Report & Accounts 2018/19*.

The Group's policy for leases as of 1 July 2019 under IFRS 16 *Leases*, is as follows:

Definition of a lease

Under IFRS 16, a contract is, or contains, a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for consideration.

Lessee accounting

At the lease commencement date, a right-of-use asset is recognised for the leased item with a corresponding lease liability for any payments due. The right-of-use asset is initially measured at cost, being the present value of the lease payments paid or payable (net of any incentives received from the lessor), plus any initial direct costs and/or restoration costs.

Right-of-use assets is depreciated on a straight-line basis from the commencement date of the lease to the earlier of the end of the asset's useful life or the end of the lease term. The lease term is the non-cancellable period of the lease plus any periods for which the Group is 'reasonably certain' to exercise any extension options. If right-of-use assets are considered to be impaired, the carrying value is reduced accordingly.

The lease liability is initially measured at the value of future lease payments, discounted using the interest rate implicit in the lease. Where this rate is not determinable, the Group's incremental borrowing rate is used, which is then adjusted to reflect an estimate of the interest rate the Group would have to pay to borrow the amount necessary to obtain an asset of similar value, in a similar economic environment, and with similar terms and conditions.

After initial recognition, the lease liability is recorded at amortised cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate (e.g. an inflation related increase) or if the Group's assessment of the lease term changes. Any change in the lease liability as a result of these changes also results in a corresponding change in the recorded right-of-use asset.

Payments in respect of short-term and/or low-value leases continue to be charged to the income statement on a straight-line basis over the lease term.

For assets where the lessor transfers ownership of the underlying asset to the Group by the end of the lease term, or where the lease contains a purchase option at a nominal/notional value, then these assets will be initially classified as property, plant and equipment, and subsequently follow the depreciation rules set out in Note 1(p) to the financial statements in the *Annual Report & Accounts 2018/19*).

Lessor accounting

The Group determines at inception of the lease whether the lease is a finance or an operating lease. When a lease transfers substantially all the risks and rewards of ownership of the underlying asset then the lease is a finance lease; otherwise, the lease is an operating lease. Where the Group is an intermediate lessor, the interest in the head lease and the sub-lease is accounted for separately and the lease classification of a sub-lease (finance or operating) is determined by reference to the right-of-use asset arising from the head lease, not with reference to the underlying asset. This is the only substantive change for lessor accounting from IAS 17 to IFRS 16.

This resulted in one significant operating lease being reclassified as a finance lease. This is presented in investment properties and measured at fair value on transition to IFRS 16. The other sub-leased assets are all classified as operating leases, where payments received (net of any incentives granted by the Group) are recognised in the income statement on a straight-line basis over the lease term.

Critical judgements and key estimates

The Group exercises judgement in determining the likelihood of exercising break or extension options in determining the lease term. This impacts the size of the right-of-use asset and corresponding lease liability.

The discount rate used to calculate the lease liability is the rate implicit in the lease, if it can be readily determined, or the lessee's incremental borrowing rate if not. The Group uses the incremental borrowing rate for all leases. The incremental borrowing rate is calculated as the sum of the risk-free rate based on government bond rates, a credit risk adjustment for Ricardo and an asset specific adjustment.

Notes to the condensed interim financial statements
for the six months ended 31 December 2019 (unaudited)

Adjustment to the financial statements

Consolidated statement of financial position (extract)

As at 1 July 2019	Previously reported £m	IFRS 16 transitional adjustment £m	Adjusted under IFRS 16 £m
Assets			
Non-current assets			
Right-of-use assets	-	37.8	37.8
Investment properties	-	2.3	2.3
Deferred tax assets	6.7	1.0	7.7
Total non-current assets	176.5	41.1	217.6
Current assets			
Trade, contract and other receivables	141.4	(1.5)	139.9
Total current assets	192.5	(1.5)	191.0
Total current assets and non-current assets held for sale	195.4	(1.5)	193.9
Total assets	371.9	39.6	411.5
Liabilities			
Current liabilities			
Lease liabilities	-	(4.6)	(4.6)
Trade, contract and other payables	(84.8)	2.1	(82.7)
Total current liabilities	(95.7)	(2.5)	(98.2)
Net current assets	99.7	(4.0)	95.7
Non-current liabilities			
Lease liabilities	-	(41.1)	(41.1)
Total non-current liabilities	(104.3)	(41.1)	(145.4)
Total liabilities	(200.0)	(43.6)	(243.6)
Net assets	171.9	(4.0)	167.9
Equity			
Retained earnings	126.8	(4.0)	122.8
Equity attributable to owners of the parent	171.4	(4.0)	167.4
Total equity	171.9	(4.0)	167.9

Reconciliation between operating lease commitments and lease liabilities

The following table explains the differences between the operating lease commitments disclosed applying IAS 17 at 30 June 2019 and the lease liabilities recognised on transition to IFRS 16 on 1 July 2019.

	£m
Total operating lease commitments under IAS 17 at 30 June 2019	61.2
Discounting	(12.9)
Exempt lease payments	(0.8)
Non-lease component payments	(1.8)
Lease liabilities recognised on transition to IFRS 16 at 1 July 2019	45.7

Statement of Directors' responsibilities

The Directors confirm that to the best of their knowledge:

- the condensed interim financial statements have been prepared in accordance with International Accounting Standard 34 *Interim Financial Reporting* as adopted by the EU;

- the highlights, trading summary and operating segments review within this Interim Report includes a fair review of the information required by:

  (a) DTR 4.2.7R of the *Disclosure Guidance and Transparency Rules*, being an indication of important events that have occurred during the first six months of the financial year and their impact on the condensed interim financial statements; and a description of the principal risks and uncertainties for the remaining six months of the financial year; and

  (b) DTR 4.2.8R of the *Disclosure Guidance and Transparency Rules*, being related party transactions that have taken place in the first six months of the financial year and that have materially affected the financial position or performance of the Group during that period and any changes in the related party transactions described in the last annual report that could do so.

By order of the Board:

Dave Shemmans Chief Executive Officer	Ian Gibson Chief Financial Officer

24 February 2020

Independent review report to Ricardo plc

Conclusion

We have been engaged by Ricardo plc (the 'Company') to review the condensed interim financial statements for the six months ended 31 December 2019, which comprise the condensed consolidated income statement, the condensed consolidated statement of comprehensive income, the condensed consolidated statement of financial position, the condensed consolidated statement of changes in equity, the condensed consolidated statement of cash flows and the related explanatory notes.

Based on our review, nothing has come to our attention that causes us to believe that the condensed interim financial statements for the six months ended 31 December 2019 are not prepared, in all material respects, in accordance with International Accounting Standard ('IAS') 34 *Interim Financial Reporting* as adopted by the European Union (the 'EU') and the Disclosure Guidance and Transparency Rules (the 'DTR') of the United Kingdom's Financial Conduct Authority (the 'UK FCA').

Scope of review

We conducted our review in accordance with International Standard on Review Engagements (UK and Ireland) 2410 '*Review of Interim Financial Information Performed by the Independent Auditor of the Entity*' issued by the Auditing Practices Board for use in the UK. A review of interim financial information consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. We read the other information contained in the Interim Report and consider whether it contains any apparent misstatements or material inconsistencies with the information in the condensed interim financial statements.

A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

The impact of uncertainties due to the UK exiting the European Union on our review

Uncertainties related to the effects of Brexit are relevant to understanding our review of the condensed interim financial statements. Brexit is one of the most significant economic events for the UK, and its effects are subject to unprecedented levels of uncertainty of outcomes, with the full range of possible effects unknown. An interim review cannot be expected to predict the unknowable factors or all possible future implications for a company and this is particularly the case in relation to Brexit.

Directors' responsibilities

The Interim Report is the responsibility of, and has been approved by, the Directors. The Directors are responsible for preparing the Interim Report in accordance with the DTR of the UK FCA. As disclosed in Note 2, the annual financial statements of the Group are prepared in accordance with International Financial Reporting Standards as adopted by the EU. The Directors are responsible for preparing the condensed interim financial statements in accordance with IAS 34 as adopted by the EU.

Our responsibility

Our responsibility is to express to the Company a conclusion on the condensed interim financial statements based on our review.

The purpose of our review work and to whom we owe our responsibilities

This report is made solely to the Company in accordance with the terms of our engagement to assist the Company in meeting the requirements of the DTR of the UK FCA. Our review has been undertaken so that we might state to the Company those matters we are required to state to it in this report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company for our review work, for this report, or for the conclusions we have reached.

Michael Harper
for and on behalf of KPMG LLP
Chartered Accountants
15 Canada Square
London
E14 5GL

24 February 2020