RICARDO

24 February 2022

This announcement contains inside information for the purposes of Article 7 of the Market Abuse Regulation (EU) 596/2014 as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 ("MAR"), and is disclosed in accordance with the Company's obligations under Article 17 of MAR.

Ricardo plc

Interim Report for the six months ended 31 December 2021 (“HY 2021/22”)
Strong order intake up 16% compared to HY 2020/21 and underlying operating cash conversion of 162%, providing good momentum for the second half

HIGHLIGHTS

- Overall trading in line with the Board’s expectations
- Strong order intake of £210.6m, a 16% increase driven by accelerating environmental trends across all segments
- Revenue up 13% at £185.5m with improved performance in all segments at constant currency
- Good order intake and revenue growth in A&I signalling inflection point towards sustainable profitability
- Underlying operating profit up 42% at £10.5m
- Strong underlying operating cash conversion of 162%
- Net debt reduction to £38.5m creating opportunities to invest for growth
- Interim dividend of 2.91p declared

	Reference		**HY 2021/22**	HY 2020/21	Growth/(decline)	
Order intake		£m	**210.6**	181.1	16	%
Order book		£m	**315.5**	318.2	(1)	%
Revenue		£m	**185.5**	164.7	13	%
Underlying	*(2)*					
- Operating profit margin		%	**5.7**	4.5	1.2	pp
- Profit before tax		£m	**8.7**	5.0	74	%
- Basic earnings per share	*(3)*	p	**10.6**	6.8	56	%
Statutory						
- Operating profit margin		%	**3.5**	0.2	3.3	pp
- Profit/(loss) before tax		£m	**4.7**	(2.1)	324	%
- Basic earnings/(loss) per share		p	**5.6**	(2.7)	307	%
Underlying cash conversion	*(2) & (4)*	%	**161.9**	100.0	61.9	pp
Cash conversion	*(4)*	%	**167.6**	100.0	67.6	pp
Net debt	*(5)*	£m	**(38.5)**	(50.4)	24	%
Dividend per share (declared and paid)		p	**2.91**	1.75	66	%
Headcount	*(6)*	no.	**2,869**	2,878	-	%

References are defined in the glossary of terms below.

Commenting on the results, Graham Ritchie, Chief Executive Officer, said:

“Our half-year results are in line with our expectations, and I would like to thank my colleagues for their continued focus during my transition into the Group. Our strong order intake is particularly encouraging and is driven by increasing demand for services in respect of energy transition, climate change and decarbonisation. We have also seen strong cash generation in the first half that will create opportunity to invest in our key target segments to deliver sustainable growth.

“The Group enters the second half of the year with a good level of orders and pipeline of opportunities and solid momentum in all segments. As we enter our seasonally stronger second half, whilst some economic uncertainty remains, we are cautiously optimistic to deliver on our full year expectations for revenue and underlying PBT. Following strong net debt improvement in the first half we would expect a further small improvement by year-end.

"We look forward to the capital-markets event planned for late spring, where we will set out our strategic plans for future profitable growth."

About Ricardo plc

Ricardo plc is a world-class environmental, engineering and strategic consulting company listed on the London Stock Exchange. With over 100 years of engineering excellence, we provide exceptional levels of expertise in delivering leading edge and innovative cross sector sustainable products and solutions, helping our global customers increase efficiencies, achieve growth and create a cleaner and safer future. Our mission is clear – to create a world fit for the future.

For more information visit www.ricardo.com.

Analyst and investor presentation

There will be a presentation for analysts relating to the Group's interim results for the six months ended 31 December 2021 at 9:30am on Thursday 24 February 2022. A recording of the presentation will be available online to all investors from Thursday 24 February 2022 at https://ricardo.com/investors/financial-reporting/results-presentations.

Further enquiries:

Ricardo plc		
Ian Gibson, Chief Financial Officer	Tel:	01273 455611
Natasha Perfect, Group Marketing and Communications	Website:	www.ricardo.com
SEC Newgate	Tel:	020 7680 6882
Elisabeth Cowell / Isabelle Smurfit	E-mail:	ricardo@secnewgate.co.uk

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) Defense refers to our US-based segment which provides services to the US defence market.

(2) Underlying measures exclude the impact on statutory measures of specific adjusting items as set out in Note 8. Underlying measures are considered to provide a more useful indication of underlying performance and trends over time.

(3) Underlying earnings also exclude a tax credit to statutory earnings of £0.9m (HY 2020/21: £1.8m) for the specific adjusting items in Note 8.

(4) Cash conversion is a key measure of the Group's cash generation and measures the conversion of profit into cash. This is the reported cash generated from operations (defined as operating cash flow, less movements in net working capital and defined benefit pension deficit contributions) divided by earnings before interest, tax, depreciation and amortisation ('EBITDA'), expressed as a percentage.

(5) Net debt, as set out in Note 12, 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 believes this definition is the most appropriate for monitoring the indebtedness of the Group and is consistent with the treatment in the Group's banking agreements.

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

(7) Constant currency growth/decline is calculated by translating the result for the prior period using foreign currency exchange rates applicable to the current period. This provides an indication of the growth/decline of the business, excluding the impact of foreign exchange. In the prior reporting period, constant currency results were calculated by translating the result for the current period using foreign currency exchange rates applicable to the prior period. Using current period rates to restate prior period results is considered to provide a more useful comparison, since current period performance remains stated at actual rates. See also Note 4.

Trading summary

The Group has performed in line with the Board's expectations for the six months to 31 December 2021 ('HY 2021/22'), delivering revenue of £185.5m, 13% up on the prior period ('HY 2020/21'). Underlying operating profit was £10.5m and underlying profit before tax was £8.7m, growth of 42% and 74% on the prior period, respectively. On a reported basis, operating profit was £6.5m (HY 2020/21: £0.3m) and profit before tax was £4.7m (HY 2020/21: loss of £2.1m). The results reflect a continuation of the positive momentum seen in the second half of the prior year.

Headline trading performance

		Underlying(2)		Reported	
	Revenue	Operating profit	Profit before tax	Operating profit	Profit/(loss) before tax
HY 2021/22 (£m)	**185.5**	**10.5**	**8.7**	**6.5**	**4.7**
HY 2020/21 (£m)	164.7	7.4	5.0	0.3	(2.1)
Growth (%)	**13**	**42**	**74**	**2,067**	**324**
HY 2020/21 (£m) at current period exchange rates	162.2	7.3	4.9	0.4	(2.0)
Constant currency(7) growth (%)	**14**	**44**	**78**	**1,525**	**335**

References in superscript are defined in the glossary of terms.

On a constant currency basis revenue increased by £23.3m (14%) compared to HY 2020/21. Similarly, on a constant currency basis, underlying operating profit and profit before tax increased by £3.2m (44%) and £3.8m (78%), respectively.

Energy & Environment ('EE'), Rail, Defense and Performance Products ('PP') all met or exceeded the Board's expectations in terms of underlying operating profit. Performance in Automotive & Industrial ('A&I') continues to be challenging, due to the impact of the slow recovery from COVID-19 and customers' supply chain issues, although we are seeing improved momentum, with an increase in order intake and revenue, resulting in a reduced loss compared to the prior period. The segmental results are discussed in more detail in the Operating segments review below.

Net debt was £38.5m at 31 December 2021, a reduction of £8.4m on the 30 June 2021 position of £46.9m. This improvement reflects a strong working capital performance. Working capital reduced by £13.0m in the period and the Group generated an underlying cash inflow of £15.6m, excluding restructuring costs and acquisition-related payments.

Order intake up 16% on HY 2020/21 with closing order book of £315.5m

Order intake of £210.6m represents a 16% increase on the prior period. Across the segments, order intake increased by 37% in EE due to increased demand for climate and environment related services. Rail order intake was 6% lower than the prior period due to the timing of large project wins and foreign exchange. In A&I, order intake increased by 30% compared to the prior period, reflecting the increasing activity in the sector, with increased order intake in new mobility solutions. Defense order intake reduced by 27%, reflecting the timing of Anti-lock braking systems/electronic stability control ('ABS/ESC') orders and the recognition of the multi-year Infantry Squad Vehicle ('ISV') programme in the prior period. PP order intake increased by 36%, driven by an increase in orders on key ongoing client programmes combined with securing a new multi-year follow on transmission order.

Revenue up 13% on HY 2020/21

Revenue has grown across all the Group's segments, with the exception of Rail, which saw a small decline compared to the prior period. On a constant currency basis, revenue grew across all the segments. EE continued its strong growth trajectory, with revenue increasing by 16%, driven by increased levels of work supporting international governments with climate commitments and private sector clients with their decarbonisation strategies. Defense revenue increased by 55% as it delivered increased volumes of ABS/ESC kits and engineering services work. Higher engine and transmission volumes, together with industrial engineering work, increased PP revenue by 17%. A&I revenue increased by 8% overall, driven by growth in the EMEA and North America regions. Revenue reduced by 3% in Rail, due to foreign exchange movements (on a constant currency basis Rail revenue increased by 1%) and lower levels of work in Australia, partially offset by growth in consulting work in the Netherlands, the UK and Asia.

Trading summary

Underlying operating profit up 42% on HY 2020/21, with reported operating profit of £6.5m (HY 2020/21: £0.3m)

Underlying operating profit, which excludes specific adjusting items, increased by 42% to £10.5m (HY 2020/21: £7.4m). The Group's underlying operating profit margin increased to 5.7% from 4.5%. Underlying operating profit increased by 13% in EE, with an underlying operating profit margin of 13.9% (HY 2020/21: 14.3%), driven by the increased volume of work. Underlying operating profit in Rail improved from £3.5m in HY 2020/21 to £3.8m in HY 2021/22 due to improved levels of utilisation (margin improved from 9.1% to 10.2%). Defense underlying operating profit increased by 65%, from £1.7m to £2.8m (margin increased from 12.2% to 13.0%) due to the combination of the increased ABS/ESC volumes and engineering work. PP underlying operating profit was stable at £3.9m, with margin reducing from 11.0% to 9.4%, as PP benefitted from higher engine pricing in the prior period.

Reported operating profit increased from £0.3m to £6.5m. The Group recognised costs of £4.0m (HY 2020/21: £7.1m) in respect of specific adjusting items relating to the amortisation of acquired intangible assets, external project costs and the recognition of costs in relation to the implementation of a new cloud-based ERP system in PP. Specific adjusting items in the prior period also included restructuring actions in the A&I segment. Specific adjusting items are discussed in more detail below.

Underlying profit before tax up 74% on HY 2020/21, with reported profit before tax of £4.7m (HY 2020/21: loss of £2.1m)

Underlying profit before tax increased by 74% to £8.7m (HY 2020/21: £5.0m), driven by the improvement in underlying operating profit.

As noted above, HY 2021/22 reported profit before tax includes £4.0m of costs relating to specific adjusting items (HY 2020/21: £7.1m), discussed in more detail below.

Net debt down 18% to £38.5m (FY 2020/21: £46.9m)

Closing net debt was £38.5m (FY 2020/21: £46.9m). The Group had a net cash inflow for the period of £8.4m.

The Group paid acquisition-related earn out and retention costs of £4.9m in respect of acquisitions made in prior years, external project fees of £0.5m, and reorganisation costs, in respect of actions provided for at the end of FY 2020/21, of £1.8m. Excluding these specific adjusting items, the Group generated £15.6m of cash, which was achieved through a continuing strong focus on working capital, which reduced by £13.0m on an underlying basis. The composition of net debt is defined in Note 12.

Specific adjusting items

As set out in more detail in Note 8, the Group's underlying profit before tax excludes £4.0m of costs incurred during the period that have been charged to the income statement as specific adjusting items (HY 2020/21: £7.1m).

	HY 2021/22		HY 2020/21	
	£m	**£m**	£m	£m
Underlying[2] profit before tax		**8.7**		5.0
Amortisation of acquired intangibles		**(2.2)**		(2.8)
Acquisition-related expenditure		**(1.1)**		(1.1)
ERP system implementation costs		**(0.5)**		-
Reorganisation costs				
- A&I US - change in fair value of contingent consideration	**(0.3)**		(0.1)	
- A&I EMEA - reorganisation costs	**0.1**		(1.5)	
- A&I US - DTC purchase and impairment	**-**		(1.5)	
Total reorganisation costs		**(0.2)**		(3.1)
GMP equalisation		**-**		(0.1)
Reported profit/(loss) before tax		**4.7**		(2.1)

References in superscript are defined in the glossary of terms

Amortisation of acquired intangibles was £2.2m in the period, compared to £2.8m in HY 2020/21, with the reduction reflecting the end of the amortisation of intangible assets acquired as part of the purchase of AEA Ltd in 2012.

Acquisition-related costs of £1.1m were incurred in the period. These represent external fees in respect of certain strategic projects. Costs in the prior period reflect earn-out and deferred compensation payments for Transport Engineering Pty Ltd (renamed Ricardo Rail Australia, or 'RRA') and PLC Consulting Pty Ltd (renamed Ricardo Energy, Environment and Planning, or 'REEP'), which were acquired in May 2019 and July 2019 respectively.

ERP system implementation costs: Due to the result of guidance being issued following a recent IFRS Interpretations Committee ('IFRIC') decision, £0.5m of external costs incurred in FY 2020/21 in relation to the implementation of a new cloud-based ERP system within the PP operating segment have been expensed in the period. These costs were previously capitalised in line with prevailing practice at the time the costs were incurred. They have been classified as a specific adjusting item as they are not reflective of the underlying performance of the business in the period.

Reorganisation costs: A charge of £0.3m was recognised in the period in respect of a reduction in the fair value of contingent consideration arising on the sale of the US engine test business, located at the Detroit Technology Campus ('DTC') site (HY 2020/21: charge of £0.1m). The business was sold in June 2020. The reduction in the fair value reflects lower levels of traditional engine testing work than originally forecast at the time the business was sold.

£1.5m of reorganisation costs were incurred in the A&I EMEA business in the prior period, due to headcount reductions which were made due to the impact of COVID-19 on the level of short-term workable orders in the business. Further actions were taken in the second half of FY 2020/21. A credit of £0.1m has been recognised in the current period, reflecting the difference between actual costs incurred in HY 2021/22 and the reorganisation provisions made at 30 June 2021.

A charge of £1.5m was taken in the prior period to reflect a reduction in the fair value of the South office building of DTC, which was held-for-sale at 31 December 2020. In January 2021, management decided to continue to use the building as offers received for the property were lower than expected. As a result, it is not currently classified as held-for-sale.

Guaranteed Minimum Pensions ('GMP') equalisation: in the prior period, a charge of £0.1m was incurred in order to equalise male and female members' benefits for the effect of for historical transfers out of the Group's defined benefit pension scheme.

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

The Group continues to invest in R&D and spent £6.1m (HY 2020/21: £5.0m) before government grant income of £1.2m (HY 2020/21: £0.4m). Development costs capitalised in this period were £3.5m (HY 2020/21: £3.5m), reflecting continued investment in software products in the PP segment, together with technology, tools and processes in the A&I and EE segments. Developments in the A&I segment have focused on the electric vehicle and alternative fuel spaces.

Capital expenditure on property, plant and equipment, excluding right-of-use assets, was £2.6m (HY 2020/21: £2.2m), reflecting targeted investment in our business operations, including hydrogen and electrical test capability in our A&I EMEA business.

Net finance costs

Finance income was £0.2m (HY 2020/21: £0.3m) and finance costs were £2.0m (HY 2020/21: £2.7m) for the year, giving net finance costs of £1.8m (HY 2020/21: £2.4m). The reduction in costs reflects a reduction in the bank loan balance, as well as a reduction in the applicable interest rates as a result of improved leverage.

Taxation

The underlying effective tax rate was 24.4% for the period (HY 2020/21: 23.7%). The reported effective tax rate was 25.9% (HY 2020/2: 27.1%). The underlying rate is in line with the prior period.

Earnings per share

Basic earnings per share was 5.6p (HY 2020/21: loss per share of 2.7p). The Directors consider that underlying earnings per share provides a more useful indication of underlying performance and trends over time. Underlying basic earnings per share for the year was 10.6p (HY 2020/21: 6.8p). The calculation of basic earnings per share, with a reconciliation to an underlying basic earnings per share, which excludes the impact (net of tax) of specific adjusting items, is disclosed in Note 9.

Dividend

As set out in more detail in Note 10, the Board has declared an interim dividend of 2.91p per share (HY 2020/21: 1.75p), which reflects the Board's desire to increase the return to shareholders as the Group continues to recover from the impact of COVID-19. The dividend will be paid gross on 8 April 2022 to holders of ordinary shares on the Company's register of members on 11 March 2022.

Banking facilities

Net debt at 31 December 2021 comprised cash and cash equivalents of £56.8m, and borrowing and overdrafts, including hire purchase liabilities and net of capitalised debt issuance costs, of £95.3m.

The Revolving Credit Facility ('RCF') of £200m continues to provide the Group with committed funding available for the remaining term through to July 2023, alongside the Group's uncommitted overdraft facilities of £16m. At 31 December 2021, the amount undrawn on the RCF was £113m and the Group held net liquid cash reserves of £56.8m. This provides the Group with total cash and liquidity of £185.5m as at 31 December 2021.

The Group's Adjusted Leverage ratio (defined as net debt over EBITDA for the last twelve months, excluding the impact of specific adjusting items and IFRS 16 *Leases*) was 1.0x as at 31 December 2021. The Adjusted Leverage covenant was 3.0x.

The Interest Cover ratio (defined as EBITDA for the last twelve months, excluding the impact of specific adjusting items and IFRS 16, over net finance costs), was 11.7x at 31 December 2021. The Interest Cover covenant is 4.0x.

Further details are provided in Note 12.

Foreign exchange

On consolidation, revenue and costs are translated at the average exchange rates for the year. The Group is exposed to movements in the Pound Sterling exchange rate, principally from work carried out with customers that transact in Euros, US Dollars, Australian Dollars and Chinese Renminbi. Compared to the prior year, the average value of the Pound Sterling strengthened by 6% against the Euro, 4% against the US Dollar and 3% against the Australian Dollar. Sterling weakened by 1% against the Chinese Renminbi. On a constant currency basis revenue increased by £23.3m (14%) compared to HY 2020/21. Similarly, on a constant currency basis, underlying operating profit and profit before tax increased by £3.2m (44%) and £3.8m (78%), respectively.

Pensions

The Group's defined benefit pension scheme operates within the UK. The fair value of the scheme's assets at the end of the period was £162.8m (FY 2020/21: £156.2m). Due to an increase in scheme assets during the period, the pre-tax surplus, measured in accordance with IAS 19, increased to £9.6m from £6.8m at 30 June 2021. Ricardo paid £2.1m of cash contributions into the scheme during the period (HY 2020/21: £2.3m). From November 2021, following completion of the 2020 triennial valuation negotiations with the scheme Trustees, the level of deficit funding contributions reduced from £4.6m per annum to £1.8m per annum through to November 2023.

Chairman of the Board

Sir Terry Morgan CBE has given notice to Ricardo of his intention to stand down as Chairman of the Board. The Nomination Committee is commencing the process to select his successor and Sir Terry, who joined Ricardo in January 2014, has confirmed that he will remain in place for an orderly handover to the successful candidate. Ricardo will keep investors appraised of progress.

Group Outlook

Our half-year results are in line with our expectations. Our strong order intake is particularly encouraging and is driven by increasing demand for services in respect of energy transition, climate change and decarbonisation. We have also seen strong cash generation in the first half that will create opportunity to invest in our key target segments to deliver sustainable growth.

The Group enters the second half of the year with a good level of orders and pipeline of opportunities and solid momentum in all segments. As we enter our seasonally stronger second half, whilst some economic uncertainty remains, we are cautiously optimistic to deliver on our full year expectations for revenue and underlying PBT. Following strong net debt improvement in the first half we would expect a further small improvement by year-end.

We look forward to the capital-markets event planned for late spring, where we will set out our strategic plans for future profitable growth.

By order of the Board:

Graham Ritchie
Chief Executive Officer

Ian Gibson
Chief Financial Officer

23 February 2022

Operating segments review

The Group reports five operating segments, as set out below.

Prior period operational and financial highlights for each segment are shown both at historical foreign exchange rates (as originally reported) and restated to the current period exchange rates. This provides an indication of the performance of each segment, excluding the impact of foreign exchange (see also note 4).

Plc costs includes the costs of running the public limited company, including foreign exchange exposure on intercompany loans.

	Revenue		Underlying[2] operating profit/(loss)		Underlying[2] operating profit margin	
	2021	2020	**2021**	2020	**2021**	2020
For the six months ended December	**£m**	£m	**£m**	£m	**%**	%
Energy and environment ('EE')	**30.9**	26.6	**4.3**	3.8	**13.9**	14.3
Rail	**37.4**	38.5	**3.8**	3.5	**10.2**	9.1
Automotive & Industrial ('A&I')	**54.2**	50.1	**(1.7)**	(3.4)	**(3.1)**	(6.8)
Defense	**21.5**	13.9	**2.8**	1.7	**13.0**	12.2
Performance Products ('PP')	**41.5**	35.6	**3.9**	3.9	**9.4**	11.0
Operating segments total	**185.5**	164.7	**13.1**	9.5	**7.1**	5.8
Plc costs	**-**	-	**(2.6)**	(2.1)	**-**	-
Total	**185.5**	164.7	**10.5**	7.4	**5.7**	4.5

References in superscript are defined in the glossary of terms above.

ENERGY & ENVIRONMENT ('EE')

Our Energy and Environment ('EE') operating segment works across the value chain: gathering and evaluating evidence, setting policy measures, and working with our customers, partners, and stakeholders to support the implementation of a wide range of solutions. We have more than 40 years of experience in addressing sustainability issues and customers value our deep understanding of energy and environmental drivers, policy development, technical excellence, and the ability to turn challenges into business opportunities.

Operating and financial highlights

		Historical rates		Constant currency[7]	
	HY 2021/22	HY 2020/21	Growth/ (decline) %	HY 2020/21	Growth/ (decline) %
Order intake (£m)	**38.5**	28.2	37	28.2	37
Order book (£m)	**56.1**	41.5	35	41.5	35
Revenue (£m)	**30.9**	26.6	16	26.6	16
Underlying[2] operating profit (£m)	**4.3**	3.8	13	3.9	10
Underlying[2] operating profit margin (%)	**13.9**	14.3	(0.4)pp	14.7	(0.8)pp
Headcount[6] (no.)	**721**	625	15	625	15

References in superscript are defined in the glossary of terms above.

EE delivered a strong first half performance. Order intake was £38.5m (HY 2020/21: £28.2m), growth of 37% on the prior period. Revenue and underlying operating profit increased by 16% and 13%, respectively. Underlying operating profit margin was 13.9%, broadly in line with the prior period margin of 14.3%.

During a period in which the UK hosted the COP26 Global UN Climate Conference, our Climate Services business has continued to go from strength to strength, supporting International Governments with their climate commitments. With the increasing investor interest in the environmental, social and corporate governance ('ESG') agenda, there is also increasing demand for private-sector decarbonisation support, as companies seek to invest in Net Zero strategies, target-setting, monitoring and reporting. In addition, our Water business has had a record start to a year, benefitting from strong demand for environmental and water resource-management support from UK Water companies.

While we continue to service hundreds of global clients from the UK, our international growth is focussed on three key territories, where we have built a local presence providing regional advisory and consulting services: Australia, where performance has been strong, with revenue growth across the range of environmental advisory and approvals, planning, engineering and compliance services; the Middle East, which has seen an increasing pipeline of waste and air-quality advisory work; and Spain, where our team has grown rapidly over the last year, providing services to the European Commission as well as Spanish and Latin American markets.

Key contract wins in the period included the UK Government's Climate Services for a Net Zero Resilient World programme that will help to shape the evidence base for future UK climate policy, and the renewal of the Automatic Urban and Rural Air Quality Monitoring Network contract, also for the UK Government. Internationally, we renewed the contract for "ELTIS", the EU's Urban Mobility Observatory, and we also won a major air-quality network contract with the Royal Commission for Riyadh City.

Outlook

The second half outlook remains strong across a wide range of our technical areas and geographies, all benefitting from increased demand for climate and environment related services. Climate services support will continue to grow at the national, regional and city level, as policy makers step up to the challenges of COP26 and the need for action now.

The insights and track record from our European policy work provide a platform for activity in other geographies and in the Private sector. We are already seeing the knock-on effect of governmental led climate strategies, as we support increasing numbers of private sector clients on their ESG journeys, and with their decarbonisation plans. Increasingly, we are also assisting with implementation actions to realise their Net Zero plans, together with monitoring of progress against targets and external verification.

RAIL

Our Rail operating segment serves the global rail market, delivering technical and engineering consultancy services. With capabilities in all areas – from rolling stock, signalling, and telecommunications to energy efficiency, safety management, and operational planning – we support a client portfolio that ranges from some of the world's largest rail administrations to niche component suppliers. Along with our consultancy unit, we also operate a separate independent entity – Ricardo Certification – which performs accredited assurance services. Both divisions draw upon an international pool of rail engineers, technicians, auditors, and support teams.

Operating and financial highlights

		Historical rates		Constant currency[7]	
	HY 2021/22	HY 2020/21	(Decline) /growth %	HY 2020/21	(Decline) /growth %
Order intake (£m)	**41.5**	44.1	(6)	42.5	(2)
Order book (£m)	**99.7**	110.5	(10)	107.5	(7)
Revenue (£m)	**37.4**	38.5	(3)	37.2	1
Underlying[2] operating profit (£m)	**3.8**	3.5	9	3.4	12
Underlying[2] operating profit margin (%)	**10.2**	9.1	1.1pp	9.1	1.1pp
Headcount[6] (no.)	**569**	617	(8)	617	(8)

References in superscript are defined in the glossary of terms above.

Rail HY 2021/22 order intake was £41.5m, compared to £44.1m in the prior period. The reduction was due to the timing of larger project wins and movements in foreign exchange, with prior period order intake including a significant multi-year project win in Australia. Revenue was £37.4m, 3% lower than the prior period (£38.5m). Compared to the prior period, Sterling strengthened against the Australian Dollar and Euro. As a result, on a constant currency basis revenue increased by £0.2m. Underlying operating profit was £3.8m, a 9% increase (HY 2020/21: £3.5m) on the prior period, and underlying operating profit margin was 10.2%, a 1.1pp improvement. The growth in profitability was driven by increased utilisation and project margins. On a constant currency basis, operating profit grew by £0.4m (12%) on the prior period.

In October 2021, we were appointed by the Taipei City Government to provide independent verification and validation services for the second phase of a new metro route for the city. This includes monitoring the route's construction to ensure that the rolling stock, track infrastructure and other critical subsystems – such as communications and power supply – meet required quality and safety standards. When fully operational in 2028, this will be one of the most advanced driverless systems in the world.

Our teams in Australia and Europe (specifically the Netherlands, Denmark and the UK) reported encouraging starts to the year, as maintenance schemes and vehicle-testing programmes recommenced after twelve months of disruption related to COVID-19.

We also secured a significant contract to provide independent safety-assessment services to a regional transport operator in Canada, representing an exciting opportunity to gain a foothold in the wider North American market.

Outlook

We enter the second half of the year with a good order book and a robust business pipeline. In growth markets such as Australia and Canada, the COVID-19 pandemic has not deterred national and regional governments from the long-term rail infrastructure investments that we are experienced in supporting. In Australia, Rail is already working on the extension of the Sydney Metro and the upgrade of train-control technologies on Brisbane's commuter network.

In Europe, by contrast, there is a greater focus on extending asset value and a political culture of pushing the industry to reduce its environmental impact. This has inspired initiatives such as HydroFLEX in the UK – for which Ricardo provided technical support – which have demonstrated how existing vehicles could be converted to operate under electric, battery and hydrogen power. Displayed during COP26 in Glasgow, HydroFLEX reflects a growing appetite for innovation in decarbonisation, an area rich in potential for the Ricardo group.

AUTOMOTIVE & INDUSTRIAL ('A&I')

For over 100 years, Ricardo's Automotive and Industrial ('A&I') operating segment has been using engineering and research-and-development expertise to help global vehicle manufacturers innovate and improve the efficiency and performance of their products. With digital engineering, efficiency, and effectiveness at our core, we are able to solve the most complex mobility challenges, offering a true end-to-end service to create clean, efficient, integrated energy and propulsion systems for the future. We are recognised as a thought leader in clean propulsion, electrification, and renewable fuels and we apply our experience, processes, and insights to drive innovation – from the initial concept design right through to product execution.

Operating and financial highlights

		Historical rates		Constant currency(7)	
	HY 2021/22	HY 2020/21	Growth/ (decline) %	HY 2020/21	Growth/ (decline) %
Order intake (£m)	**76.7**	59.0	30	58.4	31
Order book (£m)	**88.9**	86.1	3	86.8	2
Revenue (£m)	**54.2**	50.1	8	49.6	9
Underlying(2) operating loss (£m)	**(1.7)**	(3.4)	50	(3.4)	50
Underlying(2) operating profit margin (%)	**(3.1)**	(6.8)	3.7pp	(6.9)	3.8pp
Headcount(6) (no.)	**966**	1,045	(8)	1,045	(8)

References in superscript are defined in the glossary of terms above.

We entered this financial year having operationally aligned our three historical regional businesses, in EMEA, North America and Asia, to drive strategic alignment and increased efficiency. The team is driving a change-management process, while maintaining a clear focus on delivering into a market that is still recovering from the impact of the COVID-19 pandemic.

All key metrics have improved on the prior period. Order intake has been encouraging at £76.7m, a 30% increase on the prior period and an 88% increase on the second half of FY 2020/21 (£40.8m). Revenue was £54.2m, 8% up on the prior period, and the underlying operating loss was £1.7m, a 50% reduction on the prior period loss. The loss reflects the typical seasonality of the business, with profits historically weighted towards the second half of the financial year (we made an underlying operating profit of £1.8m in the second half of FY 2020/21).

In EMEA, order intake and revenue have both improved period on period. These, together with benefits from a restructuring programme from the previous year, have improved profitability. In the period we have secured a number of key contract wins in the electrified vehicle space.

Performance in North America has also improved period on period but remained subdued in the first quarter. Order intake levels have increased, and we are seeing positive momentum moving into the second half of the year.

In Asia, new opportunities have emerged in the heavy-duty and light mobility sectors, specifically in Korea and Japan. China, in contrast, has faced headwinds, largely resulting from pricing pressure and a highly competitive labour market.

A competitive recruitment market for highly skilled staff remains our most pressing challenge across the business. Although the business's global flexible staffing model has got off to a good start, the costs of implementation have impacted the overall profitability within this period.

Outlook

We remain cautiously optimistic about the second half of the year, as we continue to develop our consolidated global operating model. Overall, key market trends indicate continued demand for our core services, including internal combustion engine and mild hybrid, together with increasing demand for services related to emerging technologies, which include electrification and software. This is bringing opportunities for us to support both "new tech" and conventional industry players in their developments in electrification.

The pace required for client programme delivery is also increasing opportunities for us to explore business models that realise value for IP through focused investment in research and development. Generally, current challenges as well as future prospects – particularly within sustainable transportation – bode well for A&I.

DEFENSE

Our Defense operating segment has significant insight into the needs of armed forces and provides solutions to meet the challenges facing our customers in the integration of logistics and field support for complex and diverse systems. Our wide range of engineering and software solutions provides system-integration engineering for the US Army's ground inventory and we are the data-replication agent for the US Navy. Ricardo Defense is recognised as a leader in transitioning commercial and emerging technology research to applied use by our customer. Defense also specialises in niche manufacturing, adapting commercial industry products to deliver innovative sector applications that protect people and infrastructure.

Operating and financial highlights

		Historical rates		Constant currency[7]	
	HY 2021/22	HY 2020/21	(Decline) /growth %	HY 2020/21	(Decline) /growth %
Order intake (£m)	**15.9**	21.9	(27)	21.0	(24)
Order book (£m)	**20.9**	21.7	(4)	21.9	(5)
Revenue (£m)	**21.5**	13.9	55	13.3	62
Underlying[2] operating profit (£m)	**2.8**	1.7	65	1.6	75
Underlying[2] operating profit margin (%)	**13.0**	12.2	0.8pp	12.0	1.0pp
Headcount[6] (no.)	**184**	181	2	181	2

References in superscript are defined in the glossary of terms above.

Defense delivered strong growth period on period. Order intake was £15.9m (HY 2020/21: £21.9m), with the period-on-period movement reflecting the timing of orders for our anti-lock braking system/electronic stability control ('ABS/ESC') safety systems, together with the recognition of the multi-year GM Infantry Squad Vehicle ('ISV') order in the prior period. Revenue and underlying operating profit increased significantly by 55% and 65%, respectively. Underlying operating profit margin was 13.0%, an improvement of 0.8pp on the prior period. We delivered growth across both of our main business areas: Solution Products, which includes ABS/ESC, and Technical Services, which includes software and systems engineering and Field Service Support (systems installation, training and sustainment of assets in the field).

Within Solution Products, we delivered 1,786 ABS/ESC units, compared to 581 units in the prior period. Volume growth reflects a combination of increased volumes for new production vehicles and the program to retrofit the US Army's in-service fleet of vehicles.

Defense has been successful in supporting the US Army in establishing a new centralised Army Procurement Office, which focuses on the transition of new technologies into field applications. This has led to an increase in demand for our systems engineering and integration expertise as well as Field Service Support for both ABS/ESC and GM ISV. In addition, the programme to design and integrate wireless intercom systems for the US Army is ramping up in preparation of an anticipated application to significantly more vehicle systems.

Outlook

We see growth potential in Solution Products, in particular sales of ABS/ESC kits as the retrofit program continues, together with the potential assembly and supply of wireless intercom kits to multiple vehicle platforms.

Within Technical Services, we are seeing increased demand for Field Service Support (as the number of assets in the field increases), and our software and systems engineering work, including the potential for growth in assisting customers in improving the management of their mobile fuel delivery systems.

PERFORMANCE PRODUCTS ('PP')

Performance Products ('PP') includes both the PP manufacturing and Software businesses. PP is responsible for the manufacture and assembly of niche high-quality components, prototypes, and complex products, including engines, transmission, and other precision and performance-critical products. Moreover, PP provides industrial engineering services to enable products to move from concept to production for customers around the globe. The Software business delivers advanced virtual-engineering tools and leading-edge simulation software, and delivers solutions that help our customers reduce costs, resources, and time to market, while efficiently managing complexity and safety.

Operating and financial highlights

		Historical rates		Constant currency[7]	
	HY 2021/22	HY 2020/21	Growth/ (decline) %	HY 2020/21	Growth/ (decline) %
Order intake (£m)	**38.0**	27.9	36	27.7	37
Order book (£m)	**49.9**	58.4	(15)	58.4	(15)
Revenue (£m)	**41.5**	35.6	17	35.5	17
Underlying[2] operating profit (£m)	**3.9**	3.9	-	3.9	-
Underlying[2] operating profit margin (%)	**9.4**	11.0	(1.6)pp	11.0	(1.6)pp
Headcount[6] (no.)	**416**	399	4	399	4

References in superscript are defined in the glossary of terms above.

PP delivered a resilient performance in the period. Order intake was £38.0m, an increase of 36% on the prior period, driven by the timing of a large transmission order and engine orders. Software order intake was at a similar level to the prior period. Revenue was up by 17% compared to the prior period. The growth was due to increased engine and transmission volumes. Underlying operating profit was flat period on period, with margin reducing by 1.6pp, as PP benefitted from higher engine prices in the prior period.

Transmission deliveries have been broadly in line with expectations. Whilst total deliveries of engines to McLaren increased compared to the prior period, volumes have not recovered to levels previously expected, partially due to the delayed launch of the Artura vehicle platform. The impact of the lower McLaren engine deliveries has been offset by increased industrial engineering work.

We have continued to develop our product offerings, successfully delivering hybrid and full electric drivelines for automotive, motorsport and defence clients. Working in collaboration with the UK Government, PP completed a UK niche volume battery assembly feasibility study and blueprint, demonstrating technical readiness for future battery programmes. In the current period, PP was successful in securing programme continuations for a number of key clients, including motorsport contracts.

Outlook

The continued disruption to global supply chains affecting our customers and suppliers presents the greatest risk to the short to medium term performance. COVID-19, semi-conductor shortages and ongoing Brexit complexities are the key factors in this challenge over the next six months. These risks have the potential to impact PP directly, through availability of materials, and indirectly, through reducing customer demand (caused by their ability to produce vehicles).

PP's ability to develop niche volume solutions for clients, while maintaining quality and efficiency usually associated with high volume production, remains a strong differentiator in the market. Our ability to call upon the in-depth design capabilities of our engineering consultancy divisions allows us to provide a comprehensive solution across all our targeted markets. We expect the demand for industrial engineering and electrification projects to continue to grow in the second half of the year.

Our Software strategy is focused on building an integrated market-leading portfolio of products and solutions to provide value to customers as they navigate the decarbonisation journey. In the current period, we were successful in winning funded development orders from an EU customer to develop processes relating to e-fuels. In the second half of the year, we are concentrating development efforts to improve thermal engine modelling, complex transmission solutions and tail pipe emissions modelling.

Condensed interim financial statements

Condensed consolidated income statement

for the six months ended 31 December (unaudited)

		2021			2020		
		Underlying	**Specific adjusting items(*)**	**Total**	Underlying	Specific adjusting items(*)	Total
	Note	**£m**	**£m**	**£m**	£m	£m	£m
Revenue	*4 & 7*	**185.5**	**-**	**185.5**	164.7	-	164.7
Cost of sales		**(125.3)**	**-**	**(125.3)**	(110.2)	-	(110.2)
Gross profit		**60.2**	**-**	**60.2**	54.5	-	54.5
Administrative expenses		**(50.0)**	**(4.0)**	**(54.0)**	(47.7)	(7.1)	(54.8)
Other income		**0.3**	**-**	**0.3**	0.6	-	0.6
Operating profit/(loss)		**10.5**	**(4.0)**	**6.5**	7.4	(7.1)	0.3
Finance income		**0.2**	**-**	**0.2**	0.3	-	0.3
Finance costs		**(2.0)**	**-**	**(2.0)**	(2.7)	-	(2.7)
Net finance costs		**(1.8)**	**-**	**(1.8)**	(2.4)	-	(2.4)
Profit/(loss) before taxation		**8.7**	**(4.0)**	**4.7**	5.0	(7.1)	(2.1)
Income tax (expense)/credit		**(2.1)**	**0.9**	**(1.2)**	(1.2)	1.8	0.6
Profit/(loss) for the period		**6.6**	**(3.1)**	**3.5**	3.8	(5.3)	(1.5)
Profit/(loss) attributable to:							
- Owners of the parent		**6.6**	**(3.1)**	**3.5**	3.8	(5.3)	(1.5)
- Non-controlling interests		**-**	**-**	**-**	-	-	-
		6.6	**(3.1)**	**3.5**	3.8	(5.3)	(1.5)

Earnings/(loss) per ordinary share attributable to owners of the parent during the period

Basic and diluted	*9*	5.6p	(2.7)p

(*) Specific adjusting items are disclosed separately in the condensed interim financial statements where it is necessary to do so to provide further understanding of the financial performance of the Group. Further details are given in Note 4 and Note 8.

Condensed consolidated statement of comprehensive income

for the six months ended 31 December (unaudited)

	2021	2020
	£m	£m
Profit/(loss) for the period	**3.5**	(1.5)
Other comprehensive income		
Items that will not be reclassified to profit or loss:		
Remeasurements of the defined benefit pension scheme	**0.6**	1.9
Deferred tax on remeasurements of the defined benefit pension scheme	**(0.1)**	(0.4)
Total items that will not be reclassified to profit or loss	**0.5**	1.5
Items that may be subsequently reclassified to profit or loss:		
Currency translation on foreign currency net investments	**(0.1)**	(0.8)
Total items that may be subsequently reclassified to profit or loss	**(0.1)**	(0.8)
Total other comprehensive income for the period (net of tax)	**0.4**	0.7
Total comprehensive income/(expense) for the period	**3.9**	(0.8)
Income/(expense) attributable to:		
- Owners of the parent	**3.9**	(0.8)
- Non-controlling interests	**-**	-
	3.9	(0.8)

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

Condensed consolidated statement of financial position

	Note	31 December 2021 Unaudited £m	30 June 2021 Audited £m
Assets			
Non-current assets			
Goodwill		**84.0**	84.7
Other intangible assets		**31.2**	33.9
Property, plant and equipment		**44.9**	46.9
Right-of-use assets		**16.9**	19.5
Retirement benefit surplus		**9.6**	6.8
Other receivables		**2.3**	2.3
Deferred tax assets		**9.4**	8.3
		198.3	202.4
Current assets			
Inventories		**20.1**	16.9
Trade, contract and other receivables		**120.8**	126.9
Derivative financial assets		**0.6**	0.9
Current tax assets		**1.9**	1.5
Cash and cash equivalents	*12*	**56.8**	42.0
		200.2	188.2
Total assets		**398.5**	390.6
Liabilities			
Current liabilities			
Borrowings	*12*	**9.0**	12.8
Lease liabilities		**4.6**	5.5
Trade, contract and other payables		**79.2**	76.6
Current tax liabilities		**1.7**	1.4
Derivative financial liabilities		**2.2**	1.0
Provisions		**3.9**	4.0
		100.6	101.3
Net current assets		**99.6**	86.9
Non-current liabilities			
Borrowings	*12*	**86.3**	76.1
Lease liabilities		**16.3**	18.8
Deferred tax liabilities		**8.2**	8.2
Provisions		**2.9**	3.4
		113.7	106.5
Total liabilities		**214.3**	207.8
Net assets		**184.2**	182.8
Equity			
Share capital		**15.6**	15.6
Share premium		**16.8**	16.8
Other reserves		**37.9**	38.0
Retained earnings		**113.7**	112.2
Equity attributable to owners of the parent		**184.0**	182.6
Non-controlling interests		**0.2**	0.2
Total equity		**184.2**	182.8

The accompanying notes form 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 1 July 2021	**15.6**	**16.8**	**38.0**	**112.2**	**182.6**	**0.2**	**182.8**
Profit for the period	**-**	**-**	**-**	**3.5**	**3.5**	**-**	**3.5**
Other comprehensive (expense)/income	**-**	**-**	**(0.1)**	**0.5**	**0.4**	**-**	**0.4**
Total comprehensive (expense)/income	**-**	**-**	**(0.1)**	**4.0**	**3.9**	**-**	**3.9**
Equity-settled transactions	**-**	**-**	**-**	**0.8**	**0.8**	**-**	**0.8**
Purchase of own shares to settle awards	**-**	**-**	**-**	**(0.1)**	**(0.1)**	**-**	**(0.1)**
Ordinary share dividends	**-**	**-**	**-**	**(3.2)**	**(3.2)**	**-**	**(3.2)**
At 31 December 2021 (unaudited)	**15.6**	**16.8**	**37.9**	**113.7**	**184.0**	**0.2**	**184.2**
At 1 July 2020	13.4	14.3	17.4	103.5	148.6	0.5	149.1
Loss for the period	**-**	-	-	(1.5)	(1.5)	-	(1.5)
Other comprehensive (expense)/income	-	-	(0.8)	1.5	0.7	-	0.7
Total comprehensive expense	-	-	(0.8)	-	(0.8)	-	(0.8)
Issue of ordinary share capital	2.2	2.5	23.5	-	28.2	-	28.2
Equity-settled transactions	-	-	-	0.4	0.4	-	0.4
Ordinary share dividends	-	-	-	-	-	(0.4)	(0.4)
At 31 December 2020 (unaudited)	15.6	16.8	40.1	103.9	176.4	0.1	176.5

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

Condensed consolidated statement of cash flows

for the six months ended 31 December (unaudited)

	Note	2021 £m	2020 £m
Cash flows from operating activities			
Profit/(loss) before taxation		**4.7**	(2.1)
Adjustments for:			
- Share-based payments		**0.7**	0.4
- Fair value losses on derivative financial instruments		**0.6**	0.4
- Profit on disposal of property, plant and equipment		**-**	(0.3)
- Net finance costs		**1.8**	2.4
- Depreciation, amortisation and impairment		**11.1**	13.8
Operating cash flows before movements in working capital		**18.9**	14.6
Changes in:			
- Inventories		**(3.2)**	0.8
- Trade, contract and other receivables		**6.5**	1.0
- Trade, contract and other payables		**9.8**	0.8
- Provisions		**(0.4)**	(0.8)
Defined benefit pension scheme payments in excess of past service costs		**(2.1)**	(2.3)
Cash generated from operations		**29.5**	14.1
Net interest paid		**(1.8)**	(1.8)
Income tax paid		**(2.4)**	(1.5)
Net cash from operating activities		**25.3**	10.8
Cash flows from investing activities			
Acquisitions of subsidiaries, net of cash acquired		**(4.9)**	(5.1)
Purchases of property, plant and equipment		**(2.6)**	(2.5)
Proceeds from disposal of property, plant and equipment		**-**	0.3
Purchases of intangible assets and capitalised development costs		**(3.5)**	(4.2)
Net cash used in investing activities		**(11.0)**	(11.5)
Cash flows from financing activities			
Proceeds from issuance of ordinary shares		**-**	28.2
Purchases of own shares to settle awards		**(0.1)**	-
Principal element of lease payments		**(2.7)**	(3.2)
Principal element of lease receivables		**0.1**	0.1
Proceeds from borrowings	*12*	**10.0**	5.0
Repayment of borrowings	*12*	**-**	(29.1)
Dividends paid to shareholders and return of capital	*10*	**(3.2)**	(0.4)
Net cash from financing activities		**4.1**	0.6
Effect of exchange rate changes on cash and cash equivalents		**0.2**	(1.1)
Net increase/(decrease) in cash and cash equivalents	*12*	**18.6**	(1.2)
Net cash and cash equivalents at 1 July		**29.3**	55.8
Net cash and cash equivalents at 31 December		**47.9**	54.6
At 1 July			
Cash and cash equivalents	*12*	**42.0**	66.3
Bank overdrafts	*12*	**(12.7)**	(10.5)
Net cash and cash equivalents at 1 July		**29.3**	55.8
At 31 December			
Cash and cash equivalents	*12*	**56.8**	61.4
Bank overdrafts	*12*	**(8.9)**	(6.8)
Net cash and cash equivalents at 31 December		**47.9**	54.6

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

Condensed interim financial statements

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 23 February 2022. 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 2021 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 for use in the UK.

These condensed interim financial statements should be read in conjunction with the financial statements for the year ended 30 June 2021 within the *Annual Report & Accounts* 2020/21, which were prepared in accordance with International Financial Reporting Standards ('IFRS'), IFRS Interpretations Committee ('IFRS IC') interpretations adopted by the UK and the Companies Act 2006 applicable to companies reporting under IFRS. The *Annual Report & Accounts 2020/21*, which was approved by the Board of Directors on 14 September 2021 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 2020/21* except for the requirements of IAS 34 *Interim Financial Reporting* in respect of income tax. Taxes on income in the interim period are accrued using the tax rate that would be applicable to expected total annual profit or loss.

In the context of the challenging economic environment in the automotive sector, exacerbated by the economic uncertainty caused by the ongoing COVID-19 pandemic, the Board of Ricardo plc has undertaken an assessment of the ability of the Group and Company to continue in operation and meet its liabilities as they fall due over the period of its assessment. In doing so, the Board considered events throughout the period of their assessment, including the availability and maturity profile of the Group's financing facilities and covenant compliance. These condensed interim financial statements have been prepared on the going concern basis which the directors consider appropriate for the reasons set out below. The Group funds its operations through cash generated by the Group and has access to a £200.0m Revolving Credit Facility ("RCF") which is linked to two covenants. These covenants are tested at 30 June and 31 December each year until the debt matures in July 2023. The threshold for the Adjusted Leverage (defined as net debt over underlying EBITDA for the last twelve months, excluding IFRS 16 *Leases*) is 3.0x for each test date. The threshold for the Interest Cover (defined as underlying EBITDA for the last twelve months over net finance costs, excluding IFRS 16 *Leases*) is 4.0x for each test date.

At the reporting date, the Group had an adjusted leverage of 1.0x and interest cover was 11.7x. As at the date of approval of these condensed interim financial statements, the amount of the RCF undrawn and available to the Group was £125m, with total borrowing, including overdrafts and hire purchase liabilities, of £82m and cash and cash equivalents of £43m.

The Directors have prepared a cash flow forecast which covers at least 12 months from the date of approval of these condensed interim financial statements. In this forecast, the directors have considered the impact of the ongoing COVID-19 pandemic on trading levels, as well as delays in starting new projects and converting pipeline opportunities, on the Group's results, operations and financial position, in a severe but plausible downside scenario. This scenario models a reduction of 15% in the Group's EBITDA in FY 2021/22 with no growth in FY 2022/23. In addition, the downside scenario models an increase in net working capital days over the remainder of FY 2021/22 and FY 2022/23.

The modelled downside scenario incorporates some mitigating actions which are within the control of the Group, such as setting appropriate levels of dividends, the non-payment of discretionary bonuses and a reduction in non-essential capital expenditure. Although headroom under the Group's banking covenants is reduced under this downside scenario, the Group (and Company) is expected to operate within its committed facilities and covenant requirements during the forecast period.

Consequently, the directors are confident that the Group and Company will have sufficient funds to continue to meet its liabilities as they fall due for at least 12 months from the date of approval of the condensed interim financial statements and therefore have prepared the condensed interim financial statements on a going concern basis.

3. Seasonality

Based upon management's 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.

4. Alternative Performance Measures

Throughout this document the Group presents various alternative performance measures ('APMs') in addition to those reported under IFRS. The measures presented are those adopted by the Chief Operating Decision Maker ('CODM', deemed to be the Chief Executive Officer), together with the main Board, and analysts who follow us in assessing the performance of the business. Explanations of how they are calculated and how they are reconciled to an IFRS statutory measure are set out below.

(a) Group profit and earnings measures

Underlying profit before tax ('PBT') and underlying operating profit: These measures are used by the Board to monitor and measure the trading performance of the Group. They exclude certain items which the Board believes distort the trading performance of the Group. These include the amortisation of acquired intangible assets, acquisition-related expenditure, costs related to implementation and configuration of purchased software services, reorganisation costs, and other specific adjusting items.

The Group's strategy includes geographic and sector diversification, including targeted acquisitions and disposals. By excluding acquisition-related expenditure from underlying PBT and underlying operating profit, the Board has a clearer view of the performance of the Group and is able to make better operational decisions to support its strategy.

Acquisition-related expenditure includes the costs of acquisitions, deferred and contingent consideration fair value adjustments (including the unwinding of discount factors), transaction-related fees and expenses, and post-deal integration costs.

Costs related to implementation and configuration of purchased software services are excluded from underlying PBT and operating profit as they are not considered to be reflective of the Group's trading performance in the year. The costs relate to software which is expected to be utilised over multiple years.

Reorganisation costs arising from major restructuring activities, profits or losses on the disposal of businesses, and significant impairments of property, plant and equipment, are excluded from underlying PBT and underlying operating profit as they are not reflective of the Group's trading performance in the year, as are any other specific adjusting items deemed to be one-off in nature.

The related tax effects on the above and other tax items which do not form part of the underlying tax rate are also taken into account. Items are treated consistently year-on-year, and these adjustments are also consistent with the way that performance is measured under the Group's incentive plans and its banking covenants. A reconciliation is shown below. Further details of the nature of the specific adjusting items are given in Note 8.

Condensed interim financial statements

Reconciliation of underlying profit before tax to reported profit/(loss) before tax

	2021			2020		
	Underlying	**Specific adjusting items**	**Total**	Underlying	Specific adjusting items	Total
	£m	**£m**	**£m**	£m	£m	£m
Revenue	**185.5**	**-**	**185.5**	164.7	-	164.7
Cost of sales	**(125.3)**	**-**	**(125.3)**	(110.2)	-	(110.2)
Gross profit	**60.2**	**-**	**60.2**	54.5	-	54.5
Administrative expenses and other income	**(49.7)**	**-**	**(49.7)**	(47.1)	-	(47.1)
Amortisation of acquired intangibles	**-**	**(2.2)**	**(2.2)**	-	(2.8)	(2.8)
Acquisition-related expenditure	**-**	**(1.1)**	**(1.1)**	-	(1.1)	(1.1)
ERP implementation costs	**-**	**(0.5)**	**(0.5)**	-	-	-
Purchases and disposals	**-**	**(0.3)**	**(0.3)**	-	(1.6)	(1.6)
Other reorganisation costs	**-**	**0.1**	**0.1**	-	(1.5)	(1.5)
GMP equalisation	**-**	**-**	**-**	-	(0.1)	(0.1)
Operating profit/(loss)	**10.5**	**(4.0)**	**6.5**	7.4	(7.1)	0.3
Net finance expense	**(1.8)**	**-**	**(1.8)**	(2.4)	-	(2.4)
Profit/(loss) before taxation	**8.7**	**(4.0)**	**4.7**	5.0	(7.1)	(2.1)
Income tax (expense)/credit	**(2.1)**	**0.9**	**(1.2)**	(1.2)	1.8	0.6
Profit/(loss) for the year	**6.6**	**(3.1)**	**3.5**	3.8	(5.3)	(1.5)

Underlying earnings attributable to the owners of the parent: The Group uses underlying earnings attributable to the owners of the parent as the input to its adjusted EPS measure. This profit measure excludes the amortisation of acquired intangibles, acquisition-related expenditure, reorganisation costs and other specific adjusting items, but is an after-tax measure. The Board considers underlying EPS to be more reflective of the Group's trading performance in the year than reported EPS. A reconciliation between earnings attributable to the owners of the parent and underlying earnings attributable to the owners of the parent is shown in Note 9.

Constant currency growth/decline: The Group generates revenues and profits in various territories and currencies because of its international footprint. Those results are translated on consolidation at the foreign exchange rates prevailing at the time. Constant currency growth/decline is calculated by translating the result for the prior period using foreign currency exchange rates applicable to the current period. This provides an indication of the growth/decline of the business, excluding the impact of foreign exchange. In the prior reporting period, constant currency results were calculated by translating the result for the current period using foreign currency exchange rates applicable to the prior period. Using current period rates to restate prior period results is considered to provide a more useful comparison, since current period performance remains stated at actual rates.

Headline trading performance

		Underlying		**Reported**	
	Revenue	**Operating profit**	**Profit before tax**	**Operating profit**	**Profit/(loss) before tax**
HY 2021/22 (£m)	**185.5**	**10.5**	**8.7**	**6.5**	**4.7**
HY 2020/21 (£m)	164.7	7.4	5.0	0.3	(2.1)
Growth (%)	**13**	**42**	**74**	**2,067**	**324**
HY 2020/21 (£m) at current period exchange rates	162.2	7.3	4.9	0.4	(2.0)
Constant currency growth (%)	**14**	**44**	**78**	**1,525**	**335**

Segmental underlying operating profit: This is presented in the Group's segmental disclosures and reflects the underlying trading of each segment, as assessed by the main Board. This excludes segment-specific amortisation of acquired intangibles, acquisition-related expenditure and other specific adjusting items, such as reorganisation costs. It also excludes unallocated Plc costs, which represent the costs of running the public limited company and specific adjusting items which are outside of the control of segment management. A reconciliation between segment underlying operating profit, the Group's underlying operating profit and operating profit is presented in Note 6.

(b) Cash flow measures

Cash conversion: A key measure of the Group's cash generation is the conversion of profit into cash. This is the reported cash generated from operations (defined as operating cash flow, less movements in net working capital and defined benefit pension deficit contributions) divided by earnings before interest, tax, depreciation and amortisation ('EBITDA'), expressed as a percentage.

Underlying cash conversion: This is underlying cash generated from operations (defined as reported cash generated from operations, adjusted for the cash impact of specific adjusting items) divided by underlying EBITDA (defined as reported EBITDA, adjusted for the impact of specific adjusting items). A reconciliation between the two is shown below.

Cash conversion

	2021			2020		
	Underlying	**Specific adjusting items**	**Total**	Underlying	Specific adjusting items	Total
	£m	**£m**	**£m**	£m	£m	£m
Operating profit/(loss)	**10.5**	**(4.0)**	**6.5**	7.4	(7.1)	0.3
Depreciation, amortisation and impairment	**9.2**	**(0.3)**	**8.9**	9.5	1.5	11.0
Amortisation of acquired intangibles	**-**	**2.2**	**2.2**	-	2.8	2.8
EBITDA	**19.7**	**(2.1)**	**17.6**	16.9	(2.8)	14.1
Movement in working capital	**13.0**	**(0.3)**	**12.7**	1.8	-	1.8
Pension deficit payments	**(2.1)**	**-**	**(2.1)**	(2.3)	-	(2.3)
Profit on disposal of assets	**-**	**-**	**-**	(0.3)	-	(0.3)
Share based payments	**0.7**	**-**	**0.7**	0.4	-	0.4
Fair value losses on derivative financial instruments	**0.6**	**-**	**0.6**	0.4	-	0.4
Cash generated from/(used in) operations	**31.9**	**(2.4)**	**29.5**	16.9	(2.8)	14.1
Cash conversion	**161.9%**		**167.6%**	100.0%		100.0%

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 believes this definition is the most appropriate for monitoring the indebtedness of the Group and is consistent with the treatment in the Group's banking agreements.

(c) Tax measures

Underlying effective tax rate ('ETR'): We report one adjusted tax measure, which is the tax rate on underlying profit before tax. This is the tax charge applicable to underlying profit before tax expressed as a percentage of underlying profit before tax.

5. Critical judgements and key sources of estimation uncertainty

As set out in Note 1c to the Group annual financial statements 2020/21, management undertakes a process to assess the risks on inception of all fixed price contracts, then monitors and reviews the risks and performance of contracts as they progress to completion. The highest value, highest risk, most technically complex and financially challenging contracts to deliver, as measured against a number of quantitative and qualitative factors, are categorised as 'Red Category 4' contracts, which are subject to more frequent and senior levels of management review.

As at 31 December 2021, 12 contracts (30 June 2021: 9) were categorised as Red Category 4. At 31 December 2021, £4.7m (30 June 2021: £3.6m) of revenue had been recognised in respect of work performed on these plus one other contract where outcomes were subject to negotiation with customers. This amount includes a change in scope which was deemed to be a contract modification as it had been agreed with the customer and was awaiting formal signature at 31 December 2021. If this change had not been accounted for as a contract modification, reported revenue would have been up to £0.4m lower. Management has made a specific judgement over the ability to recover each of the amounts under negotiation and has recognised provisions of £2.0m (30 June 2021: £1.7m) against this revenue, resulting in a net exposure of £2.7m (30 June 2021: £1.9m). The possible financial outcomes from these negotiations range from an upside of £2.5m, if management recovers the full £4.7m of revenue and potential negotiation upside, to a downside of £2.7m, if management is unsuccessful in recovering any of the £4.7m.

6. Financial performance by segment

The Group's operating segments are being reported based on the financial information provided to the Chief Operating Decision Maker (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.

The Group reports the following five segments: Energy & Environment ('EE'); Rail; Automotive & Industrial ('A&I'); Defense; and Performance Products ('PP').

The Software business is aggregated into the Performance Products operating segment for reporting purposes. Whilst the Software business continues to be run as a separate business with its own leadership team, it has a number of similar characteristics to the Performance Products manufacturing business, in that it is involved in the development and sale of niche products, requiring a high level of capital/development spend, primarily selling to automotive manufacturers.

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.

There are varying levels of integration between the segments. The segments use EE for their specialist environmental knowledge. A&I and PP have various shared projects. There are also shared service costs between the segments. Inter-segment transactions are eliminated on consolidation. Inter-segment pricing is determined on an arm's length basis in a manner similar to transactions with third parties. Included within Plc costs 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.

	EE	Rail	A&I	Defense	PP	Plc	Total
	£m	£m	£m	£m	£m	£m	£m
For the six months ended 31 December 2021							
Total segment revenue	**31.4**	**37.4**	**56.1**	**21.5**	**43.0**	**-**	**189.4**
Inter-segment revenue	**(0.5)**	**-**	**(1.9)**	**-**	**(1.5)**	**-**	**(3.9)**
Revenue from external customers	**30.9**	**37.4**	**54.2**	**21.5**	**41.5**	**-**	**185.5**
Segment underlying operating profit/(loss)	**4.3**	**3.8**	**(1.7)**	**2.8**	**3.9**	**-**	**13.1**
Plc costs	**-**	**-**	**-**	**-**	**-**	**(2.6)**	**(2.6)**
Underlying operating profit/(loss)	**4.3**	**3.8**	**(1.7)**	**2.8**	**3.9**	**(2.6)**	**10.5**
Specific adjusting items(*)	**(0.2)**	**(1.8)**	**(0.2)**	**(0.2)**	**(0.5)**	**(1.1)**	**(4.0)**
Operating profit/(loss)	**4.1**	**2.0**	**(1.9)**	**2.6**	**3.4**	**(3.7)**	**6.5**
Net finance costs							**(1.8)**
Profit before taxation							**4.7**
For the six months ended 31 December 2020							
Total segment revenue	27.0	38.6	51.5	13.9	37.0	-	168.0
Inter-segment revenue	(0.4)	(0.1)	(1.4)	-	(1.4)	-	(3.3)
Revenue from external customers	26.6	38.5	50.1	13.9	35.6	-	164.7
Segment underlying operating profit/(loss)	3.8	3.5	(3.4)	1.7	3.9	-	9.5
Plc costs	-	-	-	-	-	(2.1)	(2.1)
Underlying operating profit/(loss)	3.8	3.5	(3.4)	1.7	3.9	(2.1)	7.4
Specific adjusting items(*)	(0.7)	(1.8)	(3.1)	(0.2)	-	(1.3)	(7.1)
Operating profit/(loss)	3.1	1.7	(6.5)	1.5	3.9	(3.4)	0.3
Net finance costs							(2.4)
Loss before taxation							(2.1)

(*) See Note 8

7. Revenue

Disaggregation of revenue for the six months ended 31 December:	**2021** **£m**	2020 £m
a) Revenue stream		
Service provided under:		
- fixed price contracts	**98.9**	85.3
- time and materials contracts	**42.8**	42.2
- subscription and software support contracts	**3.7**	3.4
Goods supplied:		
- manufactured and assembled products	**36.5**	30.9
- software products	**2.9**	2.9
Intellectual property	**0.7**	-
Total	**185.5**	164.7
b) Customer location		
United Kingdom	**66.6**	53.4
Europe	**41.1**	38.3
North America	**39.3**	28.1
Rest of Asia	**11.8**	14.8
Australia	**11.8**	13.3
China	**10.3**	12.0
Rest of the World	**4.6**	4.8
Total	**185.5**	164.7
c) Timing of recognition		
Over time	**148.9**	132.8
At a point in time	**36.6**	31.9
Total	**185.5**	164.7

8. Specific adjusting items

Specific adjusting items are disclosed separately in the financial statements where it is necessary to do so in order to provide further understanding of the financial performance of the Group. These items comprise the amortisation of acquired intangible assets, acquisition-related expenditure, costs related to implementation and configuration of purchased software services, reorganisation costs and other non-recurring items that are included due to the significance of their nature or amount. Acquisition-related expenditure is incurred by the Group to effect a business combination, including the costs associated with the integration of acquired businesses. Costs related to implementation and configuration of purchased software services are excluded as they relate to software which is expected to be utilised over multiple years. Reorganisation costs relate to non-recurring expenditure incurred as part of fundamental restructuring activities, significant impairments of property, plant and equipment, and other items deemed to be one-off in nature.

For the six months ended 31 December	**2021** **£m**	2020 £m
Amortisation of acquired intangibles	**2.2**	2.8
Acquisition-related expenditure	**1.1**	1.1
ERP implementation costs	**0.5**	-
Reorganisation costs		
- Purchases and disposals	**0.3**	1.6
- Other reorganisation costs	**(0.1)**	1.5
Guaranteed Minimum Pensions ('GMP') equalisation	**-**	0.1
Total before tax	**4.0**	7.1
Tax charge on specific adjusting items	**(0.9)**	(1.8)
Total after tax	**3.1**	5.3

Amortisation of acquired intangible assets

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 the asset's useful economic life, which is between 3 to 9 years. During the period, certain "customer contracts and relationships" intangible assets reached the end of their economic life, resulting in a decrease in amortisation charges compared to the prior period.

Acquisition-related expenditure

The current period acquisition-related expenditure comprises £1.1m of external fees in respect of strategic projects. The comparative period included £1.1m of earn-out and employee retention costs, in relation to Transport Engineering Pty Ltd (now Ricardo Rail Australia - 'RRA'), and PLC Consulting Pty Ltd (now Ricardo Energy Environment and Planning - 'REEP'), acquired in May 2019 and July 2019 respectively.

ERP implementation costs

As a result of an IFRS Interpretations Committee ('IFRIC') decision in March 2021, £0.5m of external costs incurred in FY 2020/21 in relation to the implementation of a new cloud-based ERP system within the PP segment have been expensed in the current period. These costs were previously capitalised in line with prevailing practice at the time the costs were incurred. They have been classified as a specific adjusting item as they are not reflective of the underlying performance of the business in the period. The ERP system is expected to be utilised by the Group for at least five years.

Reorganisation costs

Purchases and disposals

The current period charge of £0.3m (HY 2020/21: £0.1m) relates to a reduction in the fair value of deferred consideration in respect of the sale of Ricardo's Detroit engine test business on 3 June 2020, in accordance with the treatment of the original proceeds in FY 2019/20. The reduction in the fair value reflects lower levels of traditional engine testing work than originally forecast at the time the business was sold. The comparative period charge includes a £1.5m impairment charge as a result of a decrease in the fair value of the Detroit Technology Campus ('DTC') South building, reflecting its market value at the balance sheet date. These costs were classified as specific adjusting items as they are significant in value and would distort the underlying trading performance of the Group if included.

Other reorganisation costs

A credit of £0.1m has been recognised in the current period reflecting the difference between actual costs in incurred in HY 2021/22 and provisions made at 30 June 2021. The comparative period charge reflects £1.5m of redundancy costs from headcount reductions in the Group's A&I business in Europe.

Guaranteed Minimum Pensions ('GMP') equalisation

In the prior period, a charge of £0.1m was incurred in order to equalise male and female members' benefits for the effect of for historical transfers out of the Group's defined benefit pension scheme.

9. Earnings per share

For the six months ended 30 December	2021 £m	2020 £m
Earnings/(loss) attributable to owners of the parent	**3.5**	(1.5)
Add back the net-of-tax impact of:		
- Amortisation of acquired intangibles	**1.7**	2.1
- Acquisition-related expenditure	**0.9**	0.8
- ERP implementation costs	**0.4**	-
- Asset purchases and disposals	**0.2**	1.2
- Other reorganisation costs	**(0.1)**	1.1
- Guaranteed Minimum Pensions ('GMP') equalisation	**-**	0.1
Underlying earnings attributable to owners of the parent	**6.6**	3.8

	2021 Number of shares millions	2020 Number of shares millions
Weighted average number of shares in issue	**62.2**	55.7

	2021 pence	2020 pence
Earnings/(loss) per share	**5.6**	(2.7)
Underlying earnings per share	**10.6**	6.8

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 than reported earnings per share.

There are no potentially dilutive shares (HY 2020/21: Nil).

10. Dividends

For the six months ended 31 December:	2021 £m	2020 £m
Final dividend for prior period: 5.11p per share (HY 2020/21: 0.00p) per share	**3.2**	-

On 23 February 2022 the Directors declared an interim dividend of 2.91p per share, which will be paid gross on 8 April 2022 to holders of ordinary shares on the Company's register of members on 11 March 2022.

In HY 2020/21 a dividend of £0.4m was issued during the period to a non-controlling interest. No such dividend was issued in the current period.

11. 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 £0.6m (30 June 2021: £0.9m) and derivative financial liabilities of £2.2m (30 June 2021: £1.0m) 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.

12. 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 most appropriate 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 2021 £m	30 June 2021 £m
Current assets - cash and cash equivalents		
- Cash and cash equivalents	**56.8**	42.0
Total cash and cash equivalents	**56.8**	42.0
Current liabilities - borrowings		
- Bank overdrafts repayable on demand	**(8.9)**	(12.7)
- Hire purchase liabilities maturing within one year	**(0.1)**	(0.1)
Total current borrowings	**(9.0)**	(12.8)
Non-current liabilities - borrowings		
- Hire purchase liabilities maturing after one year	**(0.2)**	(0.3)
- Bank loans maturing after one year	**(86.1)**	(75.8)
Total non-current borrowings	**(86.3)**	(76.1)
	(38.5)	(46.9)

Total cash and cash equivalents	**56.8**	42.0
Total borrowings	**(95.3)**	(88.9)
	(38.5)	(46.9)

Movement in net debt	31 December 2021 £m	30 June 2021 £m
At the beginning of the period	**(46.9)**	(73.4)
Net increase/(decrease) in cash and cash equivalents and bank overdrafts	**18.6**	(26.5)
Repayments of hire purchase	**0.1**	0.1
Amortisation of loan fees	**(0.3)**	-
Proceeds from bank loans	**(10.0)**	(5.0)
Repayments of bank loans	**-**	57.9
At the end of the period	**(38.5)**	(46.9)

Net debt at 31 December 2021 was £38.5m (FY 2020/21: £46.9m). As reported to the Board on a monthly basis, there is sufficient headroom in our banking facilities. At 31 December 2021 the Group held total facilities of £215.7m (FY 2020/21: £215.5m), which included committed facilities of £200.0m (FY 2020/21: £200.0m). The committed facility consists of a £200.0m multi-currency Revolving Credit Facility ('RCF') which provides the Group with committed funding through to July 2023. In addition, the Group has uncommitted facilities including overdrafts of £15.7m (FY 2020/21: £15.5m), which mature throughout this and the next financial year, and are renewable annually.

Non-current bank loans comprise committed facilities of £86.1m (FY 2020/21: £75.8m), net of direct issue costs, which were drawn primarily to fund acquisitions and general corporate purposes. These are denominated in Pounds Sterling and have variable rates of interest dependent upon the Group's adjusted leverage, which range from 1.4% to 2.2% above SONIA (FY 2020/21: 1.4% to 2.2% above LIBOR). Adjusted Leverage is defined in the Group's banking documents as being the ratio of total net debt to adjusted EBITDA for the last twelve months, excluding IFRS 16 *Leases*. Adjusted EBITDA is further defined as being operating profit before interest, tax, depreciation and amortisation, adjusted for any one-off, non-recurring, exceptional costs and acquisitions or disposals during the relevant period. At the reporting date, the Group has an adjusted leverage of 1.0x (FY 2020/21: 1.3x) which gives rise to an applicable interest rate of SONIA plus 1.4% (FY 2020/21: LIBOR plus 1.8%). The Group has banking facilities for its UK companies which together have a net overdraft limit, but the balances are presented on a gross basis in the condensed interim financial statements.

The Adjusted Leverage (covenant is 3.0x for each test date. The only other financial covenant is Interest Cover (defined as underlying EBITDA net finance costs for the last twelve months over, excluding IFRS 16 *Leases*), which is set at 4.0x for each test date.

13. Contingent liabilities

In the ordinary course of business, the Group has £11.8m (30 June 2021: £13.0m) of possible obligations for bonds, guarantees and counter-indemnities placed with our banking and other financial 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 employer's 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.

14. Principal risks and uncertainties

The Board regularly reviews its principal risks and uncertainties, including those relating to COVID-19. 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; cyber and information security; technology; compliance with laws and regulations; the defined benefit pension scheme; financing; and these included the continued consideration of the potential impact of COVID-19. The approach to mitigation of these principal risks is discussed on pages 35 to 37 of the Group's *Annual Report & Accounts 2020/21*, and the Directors have concluded that the disclosure remains appropriate. These principal risks and uncertainties should be read in conjunction with the Trading Summary and Operating Segments Review for the six months ended 31 December 2021 included within this Interim Report.

Statement of Directors' responsibilities

The Directors confirm that to the best of their knowledge:

- the condensed interim financial statements, which have been prepared in accordance with International Accounting Standard ('IAS') 34 *Interim Financial Reporting* as adopted for use in the UK, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group

- 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:

Graham Ritchie Chief Executive Officer	Ian Gibson Chief Financial Officer

23 February 2022

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 2021, 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 2021 are not prepared, in all material respects, in accordance with International Accounting Standard ('IAS') 34 *Interim Financial Reporting* as adopted for use in the UK 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.

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 UK. The Directors are responsible for preparing the condensed interim financial statements in accordance with IAS 34 as adopted by the UK.

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.

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

23 February 2022