Ricardo UK Limited Annual report and financial statements for the year ended 30 June 2022

Registered number: 02815682

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Directors and advisors

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Registered company number

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Strategic report

The Directors present their Strategic Report on Ricardo UK Limited (the 'Company') for the year ended 30 June 2022.

Review of the business

The Company comprises two reportable operating segments: Automotive & Industrial and Performance Products.

Automotive & Industrial

Automotive and Industrial ('A&I') is a trusted global engineering services partner for clean and efficient integrated propulsion and energy systems. With a customer-centric focus, A&I leverages digital engineering, systems thinking and its learning culture to offer a true end-to-end service from the initial concept phase right through to product execution. Our experience and history over more than 100 years at the forefront of mobility innovation enable us to deliver solutions to the most complex challenges, allowing our customers across all global transport sectors to achieve a sustainable zero carbon future.

A&I has over 500 staff operating from its UK technical and engineering centres of excellence and consulting offices, who deliver services to a diverse customer base across more than 50 countries. Traditionally, the passenger car market has been its focus, but today it serves customers across the globe in key automotive and industrial segments, including all transport sectors, passenger and light vehicles, commercial vehicles, off-highway vehicles, motorcycles, marine and aerospace, as well as stationary power generation and infrastructure. We are continuing to increase our customer base, aligning with original equipment manufacturers, tiered suppliers, research agencies and venture start-ups, supporting a global transport industry that is undergoing an unprecedented transformation.

The growth drivers of the A&I business are as follows: rapid shift to decarbonised, sustainable transport technology; requirements for bridge solutions to fill the technology gap between internal combustion engines and battery electric vehicles; global acceleration to reduce time and cost of new product development; and digital transformation through industry 4.0, connected intelligence and software development capabilities to unlock new revenue streams.

Our competitive strengths are that A&I: is a digital engineering leader in clean propulsion and energy; is a preferred partner for design and delivery of innovative and technically differentiated solutions; has global reach with an extensive local market footprint to provide support and flexibility in the field; has customer intimacy with a deep legacy in solution integration and customisation; and has proven sustainable intellectual property and process capability across the transport sector.

During the year, we secured several multi-million pound contracts from a geographically diverse customer base that included fuel cell, power electronics and battery applications for commercial trucks and electric utility vehicles; electrified motorcycle design and testing; and clean sheet engine design for defence and marine applications. Approximately 60% relates emerging technologies, focused on electrified propulsion, vehicle integration and software and digital services, and 40% relates to established mobility solutions, focused on high efficiency internal combustion engines and emissions compliance.

A&I delivered good growth in order intake, revenue and reduced its operating loss in the year. Order intake grew by 20% to £68,439,000 (2021: £57,068,000) and the higher demand combined with higher rates of staff utilisation translated into an 18% increase in revenue to £77,853,000 (2021: £66,094,000). However, this remains well below pre-pandemic levels and the corresponding impact on operational efficiency resulted in an operating loss before specific adjusting items (see Footnote 1 on page 20) of £2,705,000 (2021: £4,475,000) at a margin of -3.5% (2021: -6.8%), and £15,346,000 (2021: £7,486,000) after specific adjusting items at a margin of -19.7% (2021: -11.3%), due to reorganisation activities and goodwill impairment.

During the year, we have undertaken significant strategic and structural changes to reorganise our business around the two key pillars of emerging technologies and established mobility solutions. This organisation structure better reflects the changing landscape of our market – which has been heavily impacted by COVID-19, causing a temporary reduction in global passenger car purchases together with increasing concerns over climate change – and the ever-evolving business models of our customers.

Through the reorganisation, we have completed a number of actions to gain increased efficiencies that will support operational effectiveness across the business. These included a reduction in headcount primarily across senior management and administrative positions, the downsizing of and exit from under-utilised properties, the impairment of intangible assets relating to technologies that are no longer part of our focused strategy, and external advisory and legal fees. This reorganisation process will continue into the next financial year, ensuring continuous improvement to deliver increased value for our customers.

Furthermore, we have also gained further operational efficiencies by advancing our processes in identifying and acquiring talent and onboarding. By doing this, we can ensure that we are continuously attracting, retaining and inspiring the very best talent.

Strategic report (continued)

Review of the business (continued)

Performance Products

Performance Products ('PP') is responsible for the manufacture and assembly of niche high-quality products, including engines, transmissions, electric drive units and other performance-critical driveline and powertrain products. Moreover, we provide industrial engineering services to enable designs to successfully move from concept to series production for customers around the globe. PP has over 300 staff and our technical experts have decades of experience to support customers in bringing their cutting-edge innovations to market.

We have been a trusted engineering partner for world championship winning and world record breaking motorsport teams for over 40 years, including Formula 1, GT and prototype, single seater, WRC and electric race series including Formula E. Additionally, we deliver niche manufacturing services to blue chip customers that operate in the high-performance vehicles, aerospace, defence and rail sectors. We serve a global customer base from our manufacturing and operations based in the UK.

The growth drivers of the PP business are as follows: continuing demand from the premium automotive market; accelerated adoption of electrified powertrains; high demand for industrial engineering services; and the decarbonisation of transportation, with increased focus on electrification and hydrogen.

Our competitive strengths are that PP: is recognised as having global expertise in niche-volume industrial engineering; continually develops manufacturing knowledge in zero emissions propulsion technology including battery systems, e-machines and hydrogen-fuelled systems; and has in-depth knowledge of hybrid and electrified powertrains developed from top-flight motorsport.

With reference to our significant programmes, McLaren engine volumes increased modestly year-on-year with an uptick in the last quarter of the financial year in support of the launch of the new V6-powered *Artura*, and transmission programme volumes significantly increased year-on-year with the start of production of the Aston Martin *Valkyrie*, which added to the already well-established Porsche Cup and Bugatti *Chiron* programmes. Motorsport, aerospace and defence component and transmission projects performed in line with our expectations over the year.

As a result, order intake for the year increased by 33% to £75,712,000 (2021: £57,092,000), reflecting the timing of engine orders from McLaren and securing the next multi-year Porsche 992 Cup transmission programme. Revenue and operating profit before specific adjusting items (see Footnote 1 on page 20) both grew in the year, by 6% to £74,254,000 (2021: £70,030,000) and 16% to £6,378,000 (2021: £5,490,000), respectively, and the margin improved slightly to 8.6% (2021: 7.8%). Operating profit after specific adjusting items for the implementation costs of a new cloud-based ERP system and impairment of goodwill was £3,864,000 (2021: £5,490,000), at a margin of 5.2% (2021: 7.8%).

We continued to develop our portfolio of existing powertrain (engine) and drivetrain (transmission) products during the year as well as new projects in the zero emissions propulsion space, including electric drive units, industrial engineering services in electric vehicle production and concept work around battery systems and electric machines.

Our world class motorsport engineering and manufacturing capabilities continued to operate at the highest tiers in motorsport, with a particular focus on next generation technology. During the year, we worked with Hyundai (on its hybrid-powered Rally 1 car), DS (on its all-electric Formula E race car), Porsche (in GT racing), and with our long-standing customer in Formula 1.

We continued to provide the UK Ministry of Defence with key spare components and precision machined components to the aerospace industry under our AS9100 certification.

COVID-19 and subsequently the conflict in Ukraine continued to cause some disruption in the supply chain. However, our rigorous process management and tools ensured that client deliveries were not affected.

Strategic report (continued)

Review of the business (continued)

Considerations of the risk and impact of pandemic diseases (COVID-19)

The consequence of pandemic diseases can be significant disruption to our people and their health, to our operations and ability to travel and to those of customers and suppliers. This situation has existed in various levels and locations through the early parts of the financial year.

COVID-19 was the first pandemic to impact the business. The effects have included: lockdowns for many weeks in most territories where customers, suppliers and Ricardo operate; working from home or limited staff activity; delays in supplies; significant limitations on commuting and business travel; and new and rapidly changing government requirements. These have had a reduced impact on order intake and revenue compared to the prior year.

This risk was mitigated by a series of actions managed via our crisis management plan which was activated in early February 2020, integrating mitigations from our pandemic disease planning and specific customer and market risks. This command structure was supported by a team of the Group's senior personnel reporting to the Group's Chief Executive Officer, and was in place until April 2022 when it became a reactive central activity. We operated our manufacturing and testing activities as near to normal as possible with additional health and safety controls to protect our staff. These controls and responses were reviewed regularly as guidance from governments changed. For our office-based staff, we responded to a variety of lockdown requirements and continued to maximise the IT remote working capabilities that were initially deployed in March 2020.

Our operating model has become less dependent on fixed office locations. We have become more agile in the way our officebased staff work and we will need less space in some locations over time, executing an employee-focused 'Healthy People, Healthy Business' approach. We are still very much an office and site-based business. Our customer and supplier-facing teams have successfully adopted a 'digital first' approach as we sell and deliver our products and services. We have started reducing our office capacity to make the business more resilient and efficient. We have increased monitoring of long-term impacts in our supply chain to anticipate potential issues early.

Key performance indicators

- Order intake for the year was £144,151,000 (2021: £114,160,000), and the closing order book was £85,508,000 (2021: £92,464,000). Order intake increased by 26% across both segments of the business as customers began to recover from the impact of COVID-19 and navigate the continued challenges in the automotive industry, and due to the timing of engine orders from McLaren and securing the next multi-year Porsche 992 Cup transmission programme;
- Revenue was £152,107,000 (2021: £136,124,000), up 12% primarily due to the increased demand in workable order intake within Automotive & Industrial which significantly improved its operational activity and staff utilisation;
- Operating profit before specific adjusting items (see Note 3), increased to £3,673,000 (2021: £1,015,000) with a margin of 2.4% (2021: 0.7%), primarily driven by the impact that the higher volume of orders had on the operational efficiency of the business. The operating loss for the year after specific adjusting items was £11,482,000 (2021: £1,996,000) with a margin of -7.5% (2021: -1.5%), primarily due to impairments of goodwill in the year;
- Net assets decreased to £110,544,000 (2021: £121,777,000), primarily driven by a £12,237,000 impairment of goodwill, a £2,793,000 reduction in capital investments net of disposals, depreciation, amortisation and impairments, a £2,587,000 reduction in working capital to £10,993,000 (2021: £13,580,000*) as a result of good cash generation, and a £761,000 increase in net tax liabilities, partially offset by a £4,899,000 increase in non-current intercompany receivables, and a £2,195,000 increase in cash net of borrowings to £8,023,000 (2021: £5,828,000) due to the reduction in working capital;
- Closing headcount, which is the number of employees on the payroll and subcontractors on a full-time equivalent basis, remained stable at 860 (2021: 873), but employees reduced by 5% due to restructuring activities during the year and the proportion of subcontractors increased from 7% to 11% which improves our resource flexibility; and
- Customer satisfaction and loyalty is measured using a Net Promoter Score ('NPS') from -100 to +100 and is used to cultivate and build customer relationships. Average NPS over the financial year remained stable in Automotive & Industrial at +63 (2021: +63) and improved in Performance Products to +58 (2021: +41).

(*) Prior year working capital was restated from £23,580,000 to reclassify intercompany loan receivables as non-current on the basis that at the date of approval of the financial statements they were not expected to be settled within one year of the reporting date.

Strategic report (continued)

Principal risks and uncertainties

From the perspective of the Company, the principal risks and uncertainties are integrated with those of its fellow subsidiaries that are ultimately controlled by Ricardo plc (the 'Group') and are not managed separately. Accordingly, the principal risks and uncertainties of the Group, which include those of the Company and the potential risk and impact of COVID-19 and climate change, are disclosed on pages 58 to 61 of Ricardo plc's *Annual Report & Accounts 2021/22*, and do not form part of this Annual Report.

At the reporting date the Company had net assets of $\pm 110,544,000$ (2021: $\pm 121,777,000$) and net current assets of $\pm 15,173,000$ (2021: $\pm 15,515,000^*$), of which $\pm 8,023,000$ (2021: $\pm 5,828,000$) is comprised of cash and cash equivalents, as well as access to the Group's $\pm 200,000,000$ committed multi-currency Revolving Credit Facility ('RCF'). As set out in more detail in Notes 1(c) and 24 to the financial statements, the ultimate parent company has indicated that if required it will provide financial support for a period of at least one year from the date of approval of these financial statements, and on 2 August 2022 it replaced its RCF with a new $\pm 150,000,000$ committed multi-currency RCF with an additional $\pm 50,000,000$ accordion facility, of which $\pm 75,000,000$ was undrawn and available at the date of approval of these financial statements.

On this basis the Directors are satisfied that the Company has sufficient cash reserves, net assets, and access to financial support to continue to trade for a period of at least one year from the date of approval of these financial statements.

(*) Prior year net current assets were restated from £25,515,000 to reclassify intercompany loan receivables as non-current on the basis that at the date of approval of the financial statements they were not expected to be settled within one year of the reporting date.

Sustainability, environmental stewardship and addressing climate change

Across everything we do, in every assignment we undertake, we remain committed to the ethos of our founder. In 1915 Sir Harry Ricardo, one of the most innovative engineers of his time, set out on a mission to 'maximise efficiency and eliminate waste'. This remains as relevant today and with our vision 'to create a safe and sustainable world', sustainability is at the heart of our DNA, and what we want to stand for as a Company.

We are firmly committed to lead by example on our own environmental impacts, as we believe that we will then be the most credible to provide support externally to our customers, to solve their complex environmental challenges.

Clear scientific consensus exists that the Earth's climate is changing, and that greenhouse gas ('GHG') emissions from human activities are the principal cause. For financial markets, climate change is accepted as a non-diversifiable, principal risk. At Ricardo, we understand that the implications of unchecked emissions and the consequent global warming will be severe, and climate change is pivotal to the Group's strategy.

The Ricardo plc Group already measures and discloses elements of its impact on the environment through its GHG emissions inventory reporting, and the Group has gone further this year to include Scope 3 emissions, all of which is disclosed on pages 46 to 48 of Ricardo plc's *Annual Report & Accounts 2021/22*, and does not form part of this Annual Report.

In addition to climate change and the management of GHG emissions, we are also focused on the wider environmental impacts that cover use of natural and other resources, waste discharge, and our overall business operations.

Opportunities to create a safe and sustainable world

In developing Ricardo plc's growth strategy and establishing key target markets, the Ricardo plc Group reviewed the key environmental and energy transition megatrends as highlighted on page 16 of Ricardo plc's *Annual Report & Accounts 2021/22*. This identifies opportunities focusing on the power and energy sectors, leveraging our understanding of global regulatory frameworks, and providing solutions to support the shift to sustainable and safe mobility. In addition to the markets we serve, as identified on pages 2 and 3, we are also looking at developing disciplined operational execution that can accelerate the impact of our activities. These include:

- *Digitalisation of products and services:* Our strategy includes a strong digitalisation focus. Not only will this drive technical innovation, but it will also enable the Ricardo plc Group and its stakeholders to reduce overall emissions;
- *Decarbonising transportation:* Projects focused on reducing the environmental impacts of transportation have been a cornerstone of the Ricardo business for decades. The development of mobility solutions with reduced lifecycle GHG emissions is a critical feature of the Ricardo plc Group's strategy; and
- *Cross-business solutions:* The Ricardo plc Group's operating segments beyond Automotive & Industrial and Performance Products operate in sectors with increasing synergies. Joining up these capabilities to enable systems thinking and comprehensive technical delivery across complex client programmes, is an essential part of its strategy.

Strategic report (continued)

Sustainability, environmental stewardship and addressing climate change (continued)

Opportunities to create a safe and sustainable world (continued)

The Company delivers many positive environmental outcomes because of the work we undertake. These include:

- Ricardo and customer-funded engineering projects to develop low-emission and high-efficiency technologies for incorporation into products around the world;
- In addition to new products and services, Ricardo is focused on faster, more efficient and less carbon intensive product design and development. A major part of this has been a reduction or elimination of prototype procurement and testing and moving partially or entirely to digital and virtual engineering; and
- Lower carbon usage through the delivery of engineering projects that lead to more efficient consumer products being manufactured by our customers including electrification of energy storage and propulsion systems.

These products and services will have an impact on future levels of emissions, waste, energy usage, and noise across many of the markets we serve. The cumulative benefits of the projects we complete each year save many multiples of our operational carbon footprint over the service life of the products we engineer and the service we provide to our customers.

Delivering safe and sustainable customer solutions today

Ricardo is in a unique position of offering solutions to carbon reduction, technical expertise and being at the crossroads of technology, regulation and implementation. Through our extensive product and project work, we have helped many customers across industry and government, and earned accolades in the process. The following environmental activities are examples of work achievements through the year that are aligned to the Ricardo plc Group's growth strategy:

- Sustainable and safe mobility: We unveiled a design for an autonomous vehicle using advanced steel materials to demonstrate strength, light weight and safety for future sustainable urban mobility. Details of the Steel E-motive programme are online (https://steelemotive.world/about/). Funding has also been awarded by the Driving the Electric Revolution Challenge at UK Research & Innovation to the UK-ALUMOTOR consortium which Ricardo leads;
- Women in Construction and Engineering ('WICE') awards: One of our chief engineers, Dragica Kostic-Perovic, was awarded the *Best Woman Electrical & Mechanical Engineer* at the European WICE awards, which recognise the most exemplary women working across construction and engineering and drive diversity across the industry, where women represent only 9% of UK engineering professionals; and
- *Clean energy and resources:* Ricardo leads a consortium that is designing a community scale greenhouse gas removal system that produces biochar as one of its outputs.

Climate change and environmental revenue

Our revenue streams have been analysed to assess how strongly they are driven by climate change and the environment. For each item of revenue, we have applied one of the following classifications:

- Revenue generated which is specifically intended to address climate change, such as projects driven by the decarbonisation of transport in Automotive & Industrial ('A&I');
- Revenue generated which is driven by a significant environmental issue, such as improving the efficiency of existing powertrains in A&I;
- Revenue generated which has environmental benefit as one of its drivers, such as the manufacture of efficient transmissions and engines in Performance Products ('PP'); or
- None of the above.

		2022 (9	%)		2021 (%)	
			Weighted			Weighted
Climate change analysis of revenue streams	A&I	PP	average	A&I	PP	average
Specifically intended to address climate change	19	1	10	16	1	9
Driven by a significant environmental issue	5	-	3	12	1	6
Has environmental benefit as one of its drivers	41	51	46	36	58	47
None of the above	35	48	41	36	40	38

Strategic report (continued)

Sustainability, environmental stewardship and addressing climate change (continued)

Climate change and environmental revenue (continued)

- Automotive & Industrial: Approximately a quarter of A&I's revenue is strongly driven by climate change or the environment with two-thirds derived from activities generating a positive environmental impact to some degree. A&I's contributions across the transportation industry consist of cutting-edge propulsion system developments to reduce carbon emissions where internal combustion engines remain the most appropriate technology, through to next generation electrical energy storage systems to power the growth in electrified propulsion.
- *Performance Products:* Whilst only a small amount of PP's revenue is generated from activities that specifically address climate change or other environmental challenges, PP is directly involved in actions to improve the overall efficiency and performance of engines and transmissions. As a result, approximately half of PP's revenue is derived from activities that lower, or at least maintain its impact on the environment. PP supports programmes that include the development and manufacture of transmissions for use in electric vehicles, such as Formula E, together with the manufacture of hybrid engines and transmission systems.

Commitment to global best practice

The Ricardo plc Group is committed to leading by example, including delivery of tangible actions to achieve its Sustainable Development Goals ('SDGs') and compliance with best practice for reporting and disclosure through alignment of the Group's sustainability framework with the Global Reporting Initiative ('GRI') and the Sustainable Accounting Standard Board ('SASB'), as set out on pages 40 and 41 of Ricardo plc's *Annual Report & Accounts 2021/22*.

Task Force on Climate-Related Financial Disclosures

The Task Force on Climate-Related Financial Disclosures (TCFD') was initiated by the Financial Stability Board ('FSB'), to enable publicly listed and large private companies to understand and disclose the impacts of climate change on their businesses. It recommends that businesses consider both the opportunities and the risks associated with climate change, with the aim to improve disclosure of information to provide broader transparency to allow stakeholders and regulators to assess the risks and opportunities resulting from climate change. This aligns with our vision and purpose, and our on-going work to remain a prominent leader of best practice in the sectors in which we operate.

We comply with TCFD by providing the information on pages 7 and 8, including the material climate-related risks identified:

- *Physical risks to our facilities:* the growing severity of climate change and variability causing physical disruption (for instance, flooding) to business;
- *Climate-liability risks:* risks associated with either increases in customer litigation, a reduction in consulting budgets, or an increase in litigation against Ricardo itself. The Ricardo plc Group's existing risk register includes an assessment of risks to our business from litigation;
- *Reputational risks:* as stakeholders place more focus on climate change, a perceived lack of action could result in reputational damage;
- Changes in customer requirements driven by climate change: climate change could result in changing demand for certain products and services. The Ricardo plc Group strategy includes a strong decarbonisation focus with major focus on energy and the environment; and
- Changes in regulations relating to climate change: as environmental and emissions regulations tighten, the risk of penalties for non-compliance increases. As a provider of services relating to changes in global emissions standards, we are in a strong position to anticipate and respond to emerging regulatory risks. We action and mitigate these risks through our existing enterprise risk management processes.

Our TCFD progress to date and overall aims of our programme are to:

- establish climate-related features as part of our long-term strategy;
- continue to explore fully our climate-related opportunities;
- ensure we are fully aware and mitigate risks associated with climate change; and
- develop class-leading capabilities, enabling us to support our customers' own TCFD and energy transition journeys.

Strategic report (continued)

Sustainability, environmental stewardship and addressing climate change (continued)

Task Force on Climate-Related Financial Disclosures (continued)

These complex undertakings are achieved using our Group's diverse skill sets – climate specialists, scenario-planning experts, and management consultants. Using external climate scenarios and impact assessments as inputs, we have developed four bespoke scenario narratives, each describing a different hypothetical world around Ricardo in 2035:

	Temperature rise	
Scenario	trajectory by 2100	Narrative
Ecopolis	< 2°C	Chronic physical risks are being addressed, although extreme weather events remain inevitable. This scenario assumes cohesive international policy interventions and significant deployment of a broad suite of effective renewable energy solutions.
Digitopolis	2-3℃	Acute and chronic physical risks. This scenario assumes some international policy intervention, progress in energy efficiency, and a reduction in travel enabled by digital technologies.
Technopolis	2-3℃	Acute and chronic physical risks. This scenario assumes little international co-operation on policy interventions. Instead, major breakthroughs in renewable energy technologies enable some climate change mitigation.
Creative scavengers	4°C	Significant acute and physical risks. This scenario assumes a lack of cohesive international policy intervention, and sporadic technological progress.

Our work has resulted in a clear set of recommendations, which we have aligned to the four official TCFD recommended disclosure themes:

TCFD theme	Progress to date
Governance	 Oversight: Climate opportunities are reviewed by the Ricardo plc Group's board on an annual basis as part of its strategy review and budget-setting processes. Climate-related risks are reviewed at the Ricardo plc Group's Audit Committee meetings as part of their bi-annual risk review process; Management role: The Ricardo plc Group's board and Executive Committee review climate change quarterly as part of a wider review of Environmental, Social and Governance ('ESG') matters. Sustainability Committee formed in 2022 with oversight by the board of Ricardo plc; and Document and disclose: The Ricardo plc Group's process is disclosed above and includes scenarios, linkage to strategy, additional key performance indicators and disclosures.
Strategy	 Impact: The Ricardo plc Group's ESG agenda is aligned to its vision and purpose; Identification: The Ricardo plc Group's strategy includes specific themes relating to climate change, its mitigation, environmental solutions, clean energy and resources, and sustainable and safe mobility; and Resilience: The Ricardo plc Group's strategy has been assessed against the four scenarios described above. These scenarios include a temperature rise by the year 2100 ranging from 4°C to below 2°C.
Risk management	 Identification: The Ricardo plc Group's TCFD activities have enabled the assessment and integration of further climate-related risks into its enterprise risk register; Management: Climate change risks are managed similarly to other principal risks, see page 5; and Organisation: Risks are owned by the Ricardo plc Group's executive directors, the Company's Directors and heads of group functions.
<i>Metrics and targets</i>	 Company metrics: The Ricardo plc Group is committed to disclosing additional climate change metrics with stakeholders. We have analysed our own revenue sources and characterised this revenue according to the extent to which each component aims to address an environmental or climate change issue. We also provide a metric on the connection between R&D spend and climate change on page 9; Greenhouse gas emissions inventory: the Ricardo plc Group's expanded inventory is externally verified and disclosed on pages 46 to 48 of Ricardo plc's Annual Report & Accounts 2021/22; and Climate-related targets: the Ricardo plc Group has set out its net zero targets, progress and overall status on page 44 of Ricardo plc's Annual Report & Accounts 2021/22.

Strategic report (continued)

Research and Development

Ongoing investment in research and development ('R&D') supports Ricardo's growth strategy, and this year we spent £4,000,000 (2021: £1,638,000) on R&D before government grant income of £2,532,000 (2021: £1,212,000).

Development costs capitalised this year were £1,964,000 (2021: £2,427,000) and reflects our evaluation of the benefit to our customers of our latest innovations, focusing on delivering technology aligned with the enduring market drivers that bring value in volatile market conditions.

We are prioritising investment in R&D and capitalised expenditure to support further growth in services with a strong connection to climate change or the environment, and 98% (2021: 90%) of our R&D spend and 80% (2021: 50%) of our capitalised development costs were in areas specifically intended to address climate change. This year we have invested significantly in net zero technology around electrification and hydrogen.

The Company also submits annual claims in respect of the UK Government's Research and Development Expenditure Credit ('RDEC') scheme, which gives relief on R&D and other related qualifying expenditure under the scheme. The total RDEC recognised in the year was £4,400,000 (2021: £5,000,000).

Directors' duty under section 172 of Companies Act 2006

In line with our duties under section 172 of the Companies Act 2006, the Directors must act in a way that gives due regard, among other matters, to: the likely consequences of any decisions in the long-term; the interests of the Company's employees; the need to foster the Company's business relationships with suppliers, customers and others; the impact of the Company's operations on the community and environment; the desirability of the Company maintaining a reputation for high standards of business conduct; and the need to act fairly between members of the Company.

The Directors acknowledge that every decision it makes will not necessarily result in a positive outcome for each of the Company's stakeholders. By considering the Company's purpose and values, together with its strategic priorities and having a process in place for decision-making the Directors do, however, aim to make sure that its decisions are in the best interest of the Company, and collectively therefore, all of its stakeholders.

Further information about how these duties have been applied can be found throughout the Annual Report, as set out in the following table:

Section 172 duties	Key examples	Pages
Consequences of decisions in the	Review of the business	2-4
long-term	Principal risks and uncertainties	5
	Future developments	10
	Directors' activities	14
	Going concern	24
Interests of employees	Review of the business	2-4
	Employee engagement	11
Foster business relationships with	Review of the business	2-4
suppliers, customers, and others	Key performance indicators: customer satisfaction	4
	Sustainability, environmental stewardship and addressing climate change	5-8
	Future developments	10
Impact of operations on the	Sustainability, environmental stewardship and addressing climate change	5-8
community and environment	Research and Development	9
Maintaining a reputation for high	Review of the business	2-4
standards of business conduct		
Act fairly between members	Employee engagement	11
	Stakeholder engagement	12-13

Further details on how the Company and Directors engaged with stakeholders are provided on pages 12 and 13.

Details of key decisions taken by the Directors and how stakeholders were considered are provided on page 14.

Strategic report (continued)

Future developments

We continue to see strong momentum in our priority markets, underpinned by environmental and energy transition trends. The macroeconomic outlook around the world is challenging. Nevertheless, as we enter the new financial year, we are confident that we are well prepared for uncertainty in the short-term, and well positioned to deliver sustainable growth through the shift in our service portfolio, aligned to the megatrends in the longer term.

Automotive & Industrial

Our global focus is to deliver innovative, sustainable mobility solutions to customers across the world and build resilience through continued expansion across all transport sectors.

We prioritise four key areas across all mobility and industrial sectors: deployment of electrified systems; enablement of nextgeneration software and controls; digital development and modelling as a path to increasing product value; and the deployment of hydrogen and de-fossilised fuels as a bridge to zero carbon transportation. This is supported by our technology roadmap, global leadership research and development, and sustainable, high-value intellectual property.

As the transition to zero carbon will take time, we will continue to support our customers with their current and transition bridge business models while accelerating the journey to develop environmentally sustainable products. We will drive innovation in the development of cleaner, more efficient conventional engines and electric-based propulsion systems, using software and digital tools to fundamentally reimage the product development lifecycle and accelerate our customers' paths to profit.

The business is gaining momentum, with a strong rebound in order intake and revenue during the year, and a reduction in its operating loss. A rapid shift to decarbonised and sustainable transport technology along with demand for bridge solutions – which fill the technology gap between internal combustion engines and battery electric vehicles – are supporting increased requirements in our engineering and consulting services. During the year, we have structured our product portfolio around emerging technologies focused on software and electrification systems, and established mobility solutions focused on internal combustion enging technologies is expected to bring the most value in terms of high growth, high margin and high returns.

Performance Products

We delivered a solid performance with increased order intake, revenue and operating profit compared to the previous year, reflecting the timing of engine orders from McLaren and the recent contract win for the multi-year Porsche 992 Cup transmission programme.

The forthcoming year will see continued growth in both our powertrain and driveline businesses. This is driven by growth in sales of high-performance vehicles and increasing demand for manufacturing engineering and supply chain consultancy, as many new customers take ideas and designs into production, particularly in new technologies.

The key focus for the next financial year will be to ensure our supply chain is able to meet the demand and to capitalise on the significant number of new products coming to market, driven by emerging and green technologies.

Approval

Approved by the Board and signed on its behalf by:

C N Amsden **Director** 17 November 2022

Directors' report

The Directors present their report and the audited financial statements of the Company for the year ended 30 June 2022.

Directors

The Directors who held office between 1 July 2021 and the date of signing this report are shown below:

C N Amsden S J Dyke (resigned 27 July 2021) I J Gibson T P Hawksworth (appointed 27 July 2021 and resigned 30 June 2022) F J Oms O'Donnell (appointed 14 July 2022) G A Ritchie (appointed 1 October 2021) D J Shemmans (resigned 30 September 2021) M J Starkey

Directors' indemnities

The Company has purchased and maintained throughout the year and up until approval of these financial statements Directors' and Officers' liability insurance in respect of itself and its Directors. The Directors also have the benefit of the indemnity provisions in the Company's Articles of Association. The Company has entered into letter agreements for the benefit of the Directors of the Company in respect of liabilities which may attach to them in their capacity as Directors of the Company or associated companies. These provisions are qualifying third party indemnity provisions as defined in section 234 of the Companies Act 2006.

Results and dividends

The Company's loss for the financial year was £11,233,000 (2021: £3,047,000). No interim dividends (2021: £Nil) were paid during the financial year and no final dividend is proposed (2021: £Nil). On 11 November 2022, the Company paid an interim dividend of £5,000,000 (£0.50 per share).

Required information provided in the Strategic Report

The Strategic Report on pages 2 to 10 provides a review of the business, its research and development activities during the year, and the likely future developments of the Company, all of which form part of this report by cross-reference.

Branches outside the UK

The Company has an overseas branch in France, which exists to develop customer relationships in the region and to acquire orders for the provision of engineering and technical consultancy services by the Automotive & Industrial business in the UK.

Employee engagement

The Company provides employees with various opportunities to obtain information on matters of concern to them and to improve awareness of the financial and economic factors that affect the performance of the Company. These include informal business performance updates and formal bi-annual presentations to all members of staff, together with departmental and team briefings and meetings with employee representatives that take place throughout the year.

The Company strives to operate fairly at all times, and this includes not permitting discrimination against any employee or applicant for employment on the basis of race, religion or belief, colour, gender, disability, national origin, age, military service, veteran status, sexual orientation, or marital status. This includes giving full and fair consideration to suitable applications for employment from disabled persons and making appropriate accommodations so that if existing employees become disabled they can continue to be employed, wherever practicable, in the same job or, if this is not practicable, making every effort to find suitable alternative employment and to provide relevant training.

The ultimate parent company operates from time-to-time a tax-advantaged Share Incentive Plan ('SIP') for the UK employees of the Company, which is intended to encourage share ownership and wider interest in the performance of the Ricardo Group. Executive Directors are eligible to participate in these arrangements up to the applicable statutory limits. The SIP provides for partnership, matching, free and dividend shares.

Stakeholder engagement

Engaging and building trust with our diverse range of stakeholders with whom we interact regularly is key to our long-term success. Effective engagement starts with our shared values – create together, be innovative, aim high, and be mindful – which guide our way of work and are reflected in how we collaborate with our employees and how we treat and interact with our customers. We understand the importance of our stakeholders and how critical active engagement is at every level. We work hard to ensure that we understand and consider our stakeholders' views, allowing us to make more informed decisions that ensure the very best outcomes for the business and its stakeholders.

In support of the requirements of section 172 of the Companies Act 2006, the information below sets out how we engage Company-wide and at Director level on the key issues that matter most to our stakeholders and our response to those issues.

Stakeholder group	Key areas of interest	How we engage Company-wide	How we engage at Director level	How we respond
<i>Employees</i> The experience and expertise of our employees is essential for the delivery of our strategy. As a business, we ensure that we promote an open culture that is diverse, equitable and inclusive ('DEI'), and which fosters good engagement that allows us to deliver value to our customers.	 Systems for physical and mental wellbeing, health and safety Systems for speaking up and problem solving Business capabilities required for future growth Appealing employee value proposition that attracts talent Effective talent acquisition practices that encourage DEI Culture that encourages high levels of engagement and commitment 	 Continuous learning and development opportunities Fostering our DEI programme Code of ethics, whistleblowing hotline, and training Performance and development reviews Sharing of 'Speak Up', employee engagement survey results, and action plans 	 Provide support to senior leaders through mentoring programmes Active role in senior leader successor plans Updates provided on DEl initiatives Support annual refresh of the Group's People strategy Reporting of People-based metrics to the Group's board Employee engagement survey provides valuable insight 	 Engagement through in-person presentations, online tools, training, live recordings, and interactive forums Talent attraction and development plan Continued deployment of flexible working practices Reviewing, updating and promoting our values in line with the wider Ricardo culture Available for informal staff listening sessions
<i>Customers</i> Our customers are the cornerstone of everything that we do. We are committed to delivering service excellence and building lasting customer relationships that provide not only enhanced service levels but also ensure the future sustainability of the Company.	 Delivery of innovative solutions Lasting customer relationships Technical expertise Maintain consistently high-quality products and service levels Sustainable services to meet customers' evolving global green agenda requirements 	 Dedicated marketing and sales teams across disciplines, market sectors, and territories Project management responsible for sustainable solution design Sector specialist knowledge to build tailored solutions in response to customer needs 	 Regular feedback from 'Voice of Customer' reviews, used to address customer-specific issues and report 'net promoter scores' monthly to inform decision- making Strategic review process provides information on the customer landscape across all the markets in which we operate 	 We ensure that investment in R&D is focused on areas that prioritise net zero and decarbonisation Originally in response to COVID- 19, we maintain focus on our 'Digital First' strategy to ensure continuous service to customers across the globe

Stakeholder engagement (continued)

Stakeholder group	Key areas of interest	How we engage Company-wide	How we engage at Director level	How we respond
Suppliers We have a global network of suppliers that provide us with products and services that are needed for us to deliver according to customer requirements. For this reason, we actively engage with our suppliers to build trusted relationships to ensure our operational success.	 Sustainable procurement Uphold ethical standards Competitiveness Potential supply chain disruption Single-sourcing decisions made with our customers 	 Our terms and conditions require suppliers to act responsibly and to adhere to our codes of conduct and other policies Conduct initial and periodic due diligence and expect suppliers to operate according to professional and quality assurance standards 	• Periodically review and discuss significant supplier contracts, challenges and arrangements	 Review major suppliers to ensure responsible and ethical conduct Modern slavery risk assessments Comply with Group's new supplier code and sustainable procurement policy Encourage suppliers to maximise use of renewable energy Supply chain management to ensure minimal disruption
<i>Communities</i> We play an active role in helping our local communities thrive by contributing both socially and economically. We are duty bound to operate in a responsible and sustainable way and we do so by always aligning our decisions and actions to our core values.	 Protecting society Environmental impacts through indirect and direct actions Clear policies that commit to making our operations more energy efficient Support local initiatives and charitable causes 	 Encourage local engagement to promote positive change through participation in charitable and social events Support academic institutions and further education in promoting events related to engineering and sustainability programmes 	 Regularly review and support all related initiatives to realise the Group's net zero 2030 targets Periodic reports to the Group's management team to provide updates on key community and sustainability matters 	 Support enhanced annual report disclosures Work with organisations such as the Institute of Engineering and Technology to promote education in engineering Support STEM programme with on- site events and school visits
Parent company We are committed to helping the ultimate parent company to deliver value to its shareholders. If required, the ultimate parent company can provide us with the financial liquidity to continue to operate.	 Financial health and operating performance Strategic direction Going concern Growth drivers Acquisitions Dividends Environmental objectives and commitments 	 Regular interactions with Chief Executive and Financial Officers, who convey strategy and performance with shareholders and lenders Providing input into ultimate parent company's external publications 	 Monthly reporting of financial and operational performance Ensuring that distributions of profits are affordable Providing input into the ultimate parent company's assessments of long-term viability and impairment 	 Submit annual operating segment budgets for Group approval, with regular updates to ensure a good understanding of forecast expectations Monthly meetings to review financial performance against budget and forecast

Directors' activities

The Directors met monthly to discuss matters of strategic importance and recommend actions to be taken. Some of the ways in which the Directors considered stakeholders in these principal decisions made during the year under review are set out below.

Key matters	Matters considered and outcome	Stakeholders considered
People and culture	<i>COVID-19:</i> Actions taken by the Directors during last year's lockdowns ensured that all necessary measures were taken to safeguard the health and wellbeing of our people. Our sites remained 'covid secure' and in line with government guidance during the year.	Employees Communities
	<i>Quality, Health, Safety, Environment ('QHSE') and security:</i> Safety of Ricardo's employees is paramount and a QHSE audit was completed, following some corrective actions including facilities investment. Audits also completed for ISO 9001/AS 9100 quality management to maintain certification and for List X to maintain security clearance.	Employees Customers Suppliers
	<i>Redundancies:</i> The consolidation of Automotive & Industrial's three regions across the globe resulted in duplication of certain roles and senior leadership positions. As a result, difficult decisions were made to implement redundancies and in making these decisions, the Directors followed best practice and complied with legal requirements via regular consultation with the Works Council. The Directors recognised that these actions would adversely impact some employees but were necessary to right-size the cost base for the level of orders achieved, and to benefit all stakeholders in the long-term.	Employees Parent company
	<i>Financial wellbeing:</i> Towards the end of the year the Directors began investigating opportunities to help employees in the coming year to navigate the rising costs caused by inflation and the conflict in Ukraine, while minimising additional personal tax liabilities. <i>Employee engagement:</i> The business engaged with its employees through the Group's annual employee survey, the results of which were presented to the Group's board, who approved a number of follow-up actions to be implemented and monitored regularly.	Employees Communities Employees
Customer and supplier	<i>Customers:</i> Regular meetings held at Director level, in addition to reviewing 'Voice of Customer' results, with a focus on prioritisation of building trusted partnerships.	Customers
engagement	<i>Suppliers:</i> During the year we worked with a number of key suppliers to find solutions to provide greater stability and address cash flow issues caused by increasing costs	Suppliers
	and fluctuating demand. <i>Ukraine conflict:</i> Caused rising prices and occasional supply chain disruption, despite all efforts to mitigate. Assessment performed to end any relationships with customers or suppliers of restricted entities, with a confirmatory self-declaration required.	Customers Suppliers
Financial performance	<i>Risk mitigation:</i> During the year, the Directors were focused on taking measures to minimise the adverse impact on the business from the volatility in customer orders and securing significant business to deliver forecast financial performance.	Parent company Employees
	<i>Business updates:</i> Provided monthly to parent company and periodically to employees on key metrics and variances to approved business plan which underpin financial performance, including order intake, revenue, costs, profitability, and cash generation.	Parent company
Church a su c	The Directors also approved the Company's results for the year ended 30 June 2022.	
Strategy review	<i>Strategy refresh:</i> The parent company approved the Directors' renewed five-year strategy and business plan, which the Directors consider will positively impact all our stakeholders and the long-term success of the business.	Parent company Employees
	<i>Investments</i> : We continue to prioritise investment on decarbonisation and the net zero agenda with a focus on electrification and hydrogen, whilst continuing to support the transition away from fossil fuel-based internal combustion engines.	Parent company Customers
	<i>Net zero 2030:</i> It was agreed to develop a future site strategy to support the Group's Environmental, Social and Governance ('ESG') objectives and net zero 2030 targets.	Communities Suppliers

Directors' report (continued)

Financial risk management

The Company has risk management processes in place for contract and other business risks. Contract risks are managed through a contract management process which is closely linked to measurement of financial performance. The majority of active contracts are reviewed on a monthly basis. In addition, contracts in the highest risk category are independently reviewed by senior management either on a quarterly basis or once significant milestones are deemed to have been achieved.

Non-contract risks are owned by Group functions and the Managing Directors of the Group's operating segments. These noncontract risks are analysed, regularly reviewed, and recorded in the Group's risk register in liaison with the Group's Risk Manager, who has an independent reporting line to the Group's Chair of the Audit Committee. The approach to risk management is to identify key risks early and to remove, control or minimise the impact of them before they occur.

Risk transfer is managed by the Group's Risk Manager under the direction of the Group's Chief Financial Officer through an insurance programme, which is reviewed annually to ensure that it continues to meet business needs as the risk profile changes.

Risk appetite is managed through a number of internal controls, authority limits and insurance excesses. Risk appetite was reviewed during the year as part of the Group's review of risks and is stated as an internal policy document to ensure that:

- risks are either classified as strategic or operational and as either internally or externally driven;
- risks are evaluated on a gross and net risk basis;
- emergent risks are considered; and
- the Group's Chief Executive Officer reviews the higher-rated risks on the Group's risk register with the Group's Audit Committee twice each year, in the presence of the Group's other Executive Directors and the Group's Chair.

The Group's internal audit function provides assurances on systems of internal control, risk management and compliance with applicable legislation and regulations. This is complemented by internal audits required as part of maintaining certifications to international standards for management systems. The effectiveness of these risk management and internal audit processes is reviewed annually by the Group's Audit Committee.

Financial risks faced by the Company comprise credit risk, foreign exchange risk, interest rate risk, capital risk and liquidity risk.

The Company is exposed to credit risk in respect of its trade receivables, which are stated net of provision for impairment. We have limited experience of bad debts with any of our customers and exposure to this risk is mitigated by careful evaluation of the granting of credit and the use of credit insurance where practicable. Concentrations of credit risk with respect to trade receivables are limited due to the Company's large and unrelated customer base, which include the world's major transportation original equipment manufacturers and tier 1 suppliers.

The Company is also exposed to bank credit risk in respect of money held on deposit and certain derivative transactions entered into with banks by the ultimate parent company. Exposure to this form of risk is mitigated as material transactions are only undertaken with bank counterparties that have high credit ratings assigned by international credit rating agencies. The Group further limits risk in this area by setting an overall credit limit for all transactions with each bank counterparty in accordance with the institution's credit standing.

The Company faces currency exposures on trading transactions undertaken in foreign currencies and balances arising therefrom, primarily in the US, Europe and China. The ultimate parent company uses derivative financial instruments primarily to manage currency risk on balances denominated in foreign currencies with fellow Group undertakings and transactional exposures relating to customer contracts.

Interest rate, capital, and liquidity risks are managed by the ultimate parent company.

Statement of Directors' responsibilities in respect of the Strategic Report, the Directors' Report and the financial statements

The Directors are responsible for preparing the Strategic Report, the Directors' Report and the financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare financial statements for each financial year. Under that law they have elected to prepare the financial statements in accordance with UK accounting standards and applicable law (UK Generally Accepted Accounting Practice), including FRS 101 *Reduced Disclosure Framework*.

Under company law the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Company and of the profit or loss of the Company for that period. In preparing these financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable UK accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements;
- assess the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and
- use the going concern basis of accounting unless they either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error, and have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the Company and to prevent and detect fraud and other irregularities.

Approval

Approved by the Board and signed on its behalf by:

C N Amsden Director

17 November 2022

Independent auditor's report to the members of Ricardo UK Limited

Opinion

We have audited the financial statements of Ricardo UK Limited (the 'Company') for the year ended 30 June 2022 which comprise the Statement of Comprehensive Income, the Statement of Financial Position, the Statement of Changes in Equity, and the related Notes to the Financial Statements, including the Accounting Policies in Note 1.

In our opinion the financial statements:

- give a true and fair view of the state of the Company's affairs as at 30 June 2022 and of its loss for the year then ended;
- have been properly prepared in accordance with UK accounting standards, including FRS 101 *Reduced Disclosure Framework*; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ('ISAs (UK)') and applicable law. Our responsibilities are described below. We have fulfilled our ethical responsibilities under, and are independent of the Company in accordance with, UK ethical requirements including the FRC Ethical Standard. We believe that the audit evidence we have obtained is a sufficient and appropriate basis for our opinion.

Going concern

The Directors have prepared the financial statements on the going concern basis as they do not intend to liquidate the Company or to cease its operations, and as they have concluded that the Company's financial position means that this is realistic. They have also concluded that there are no material uncertainties that could have cast significant doubt over its ability to continue as a going concern for at least a year from the date of approval of the financial statements ('the going concern period').

In our evaluation of the Directors' conclusions, we considered the inherent risks to the Company's business model and analysed how those risks might affect the Company's financial resources or ability to continue operations over the going concern period.

Our conclusions based on this work:

- we consider that the Directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate; and
- we have not identified, and concur with the Directors' assessment that there is not, a material uncertainty related to events or conditions that, individually or collectively, may cast significant doubt on the Company's ability to continue as a going concern for the going concern period.

However, as we cannot predict all future events or conditions and as subsequent events may result in outcomes that are inconsistent with judgements that were reasonable at the time they were made, the above conclusions are not a guarantee that the Company will continue in operation.

Fraud and breaches of laws and regulations – ability to detect

Identifying and responding to risks of material misstatement due to fraud

To identify risks of material misstatement due to fraud ('fraud risks') we assessed events or conditions that could indicate an incentive or pressure to commit fraud or provide an opportunity to commit fraud. Our risk assessment procedures included:

- enquiring of Directors, internal audit and inspection of policy documentation as to the Company's high-level policies and procedures to prevent and detect fraud, including the internal audit function, and the Company's channel for 'whistleblowing', as well as whether they have knowledge of any actual, suspected or alleged fraud;
- reading Board meeting minutes; and

We communicated identified fraud risks throughout the audit team and remained alert to any indications of fraud throughout the audit.

As required by auditing standards, and taking into account possible pressures to meet profit targets and our overall knowledge of the control environment, we perform procedures to address the risk of management override of controls, in particular the risk that management may be in a position to make inappropriate accounting entries. On this audit we do not believe there is a fraud risk related to revenue recognition because of the relatively low estimation risk across the contract portfolio, the historical accuracy of forecasting and the strength of the control environment in place.

Independent auditor's report to the members of Ricardo UK Limited (continued)

Fraud and breaches of laws and regulations – ability to detect (continued)

Identifying and responding to risks of material misstatement due to fraud (continued)

We also identified a fraud risk related to inappropriate capitalisation of development costs in response to possible pressures to meet profit targets.

We also performed procedures including:

- identifying journal entries to test based on risk criteria and comparing the identified entries to supporting documentation. These included those posted to revenue, cash, and capitalised development costs, where applicable, to check for unexpected journal pairings; and
- the vouching of a sample of recorded timesheet entries directly with employees to confirm their accuracy.

Identifying and responding to risks of material misstatement due to non-compliance with laws and regulations

We identified areas of laws and regulations that could reasonably be expected to have a material effect on the financial statements from our general commercial and sector experience through discussion with the Directors and other management (as required by auditing standards), and discussed with the Directors and other management the policies and procedures regarding compliance with laws and regulations.

We communicated identified laws and regulations throughout our team and remained alert to any indications of noncompliance throughout the audit.

The potential effect of these laws and regulations on the financial statements varies considerably.

Firstly, the Company is subject to laws and regulations that directly affect the financial statements including financial reporting legislation (including related companies legislation), distributable profits legislation and taxation legislation and we assessed the extent of compliance with these laws and regulations as part of our procedures on the related financial statement items.

Secondly, the Company is subject to many other laws and regulations where the consequences of non-compliance could have a material effect on amounts or disclosures in the financial statements, for instance through the imposition of fines or litigation. We identified the following areas as those most likely to have such an effect: health and safety, anti-bribery, employment law, and certain aspects of company legislation recognising the nature of the Company's activities and its legal form. Auditing standards limit the required audit procedures to identify non-compliance with these laws and regulations to enquiry of the Director's, and inspection of regulatory and legal correspondence, if any. Therefore, if a breach of operational regulations is not disclosed to us or evident from relevant correspondence, an audit will not detect that breach.

Context of the ability of the audit to detect fraud or breaches of law or regulation

Owing to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the financial statements, even though we have properly planned and performed our audit in accordance with auditing standards. For example, the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely the inherently limited procedures required by auditing standards would identify it.

In addition, as with any audit, there remained a higher risk of non-detection of fraud, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls. Our audit procedures are designed to detect material misstatement. We are not responsible for preventing non-compliance or fraud and cannot be expected to detect non-compliance with all laws and regulations.

Strategic report and Directors' report

The Directors are responsible for the Strategic Report and the Directors' Report. Our opinion on the financial statements does not cover those reports and we do not express an audit opinion thereon.

Our responsibility is to read the Strategic Report and the Directors' Report and, in doing so, consider whether, based on our financial statements audit work, the information therein is materially misstated or inconsistent with the financial statements or our audit knowledge. Based solely on that work:

- we have not identified material misstatements in the Strategic Report and the Directors' Report;
- in our opinion the information given in those reports for the financial year is consistent with the financial statements; and
- in our opinion those reports have been prepared in accordance with the Companies Act 2006.

Independent auditor's report to the members of Ricardo UK Limited (continued)

Matters on which we are required to report by exception

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of Directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

We have nothing to report in these respects.

Directors' responsibilities

As explained more fully in their statement set out on page 16, the Directors are responsible for: the preparation of the financial statements and for being satisfied that they give a true and fair view; such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error; assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and using the going concern basis of accounting unless they either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue our opinion in an auditor's report. Reasonable assurance is a high level of assurance, but does not guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

A fuller description of our responsibilities is provided on the FRC's website at www.frc.org.uk/auditorsresponsibilities.

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

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's 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 and the Company's members, as a body, for our audit work, for this report, or for the opinions we have formed.

Mohammed Jami

Mohammed Sami (Senior Statutory Auditor) for and on behalf KPMG LLP, Statutory Auditor *Chartered Accountants*

15 Canada Square London E14 5GL

17 November 2022

Statement of comprehensive income

for the year ended 30 June 2022

		2022	2021
	Note	£'000	£'000
Revenue	2	152,107	136,124
Cost of sales		(110,264)	(101,703)
Gross profit		41,843	34,421
Administrative expenses		(45,764)	(40,861)
Other operating income		7,594	7,455
Operating profit before specific adjusting items		3,673	1,015
Specific adjusting items ⁽¹⁾	3	(15,155)	(3,011)
Operating loss	4	(11,482)	(1,996)
Finance income		311	423
Finance costs		(650)	(767)
Net finance costs	7	(339)	(344)
Loss before taxation		(11,821)	(2,340)
Income tax credit/(expense)	8	588	(707)
Loss and total comprehensive expense for the financial year		(11,233)	(3,047)

(1) Specific adjusting items are disclosed separately in the financial statements where it is deemed necessary to do so to provide further understanding of underlying financial performance. Further details are given in Note 3.

Statement of financial position

as at 30 June 2022

			Restated*
		2022	2021
	Note	£′000	£′000
Assets			
Non-current assets			
Goodwill	10	49,176	61,413
Other intangible assets	11	4,790	7,137
Property, plant and equipment	12	35,705	36,181
Right-of-use assets	13	752	722
Investments	14	1	1
Other receivables	16	14,899	10,000
		105,323	115,454
Current assets			
Inventories	15	16,344	14,994
Trade, contract and other receivables	16	53,647	58,418
Current tax assets		612	1,073
Cash and cash equivalents		8,023	5,828
		78,626	80,313
Total assets		183,949	195,767
Liabilities		-	
Current liabilities			
Borrowings	17	(147)	(144)
Lease liabilities	13	(467)	(712)
Trade, contract and other payables	18	(58,998)	(59,833)
Current tax liabilities		(380)	(380)
Provisions	19	(3,461)	(3,729)
		(63,453)	(64,798)
Net current assets		15,173	15,515
Non-current liabilities		·	·
Borrowings	17	(138)	(286)
Lease liabilities	13	(409)	(484)
Trade, contract and other payables	18	(2,573)	(1,521)
Deferred tax liabilities	20	(5,695)	(5,394)
Provisions	19	(1,137)	(1,507)
		(9,952)	(9,192)
Total liabilities		(73,405)	(73,990)
Net assets		110,544	121,777
Equity		-	
Share capital	21	10,000	10,000
Retained earnings		100,544	111,777

(*) The prior year has been restated and the impact of these restatements are set out in Note 25.

The notes on pages 23 to 46 are an integral part of these financial statements.

The financial statements of Ricardo UK Limited, registered number 02815682, on pages 20 to 46 were approved by the Board of Directors on 17 November 2022 and were signed on its behalf by:

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C N Amsden Director

Statement of changes in equity

for the year ended 30 June 2022

	Note	Share capital £'000	Retained earnings £'000	Total equity £'000
At 1 July 2020		10,000	114,824	124,824
Loss and total comprehensive expense for the financial year		-	(3,047)	(3,047)
At 30 June 2021		10,000	111,777	121,777
Loss and total comprehensive expense for the financial year		-	(11,233)	(11,233)
At 30 June 2022		10,000	100,544	110,544

Retained earnings includes £42,311,000 (2021: £54,548,000) of non-distributable reserves, comprised of £136,506,000 of intercompany debt forgiven by Ricardo plc in the financial year ended 30 June 2005, offset by £79,710,000 of amortisation of goodwill prior to the transition date for the preparation of the financial statements in accordance with FRS 101 and £14,485,000 of impairments to goodwill since the transition to FRS 101 (see Note 10).

Notes to the financial statements

for the year ended 30 June 2022

1 Accounting policies

This section describes the critical accounting judgements and estimates that management has identified as having a potentially material impact on the Company's financial statements and sets out our principal accounting policies. Where an accounting policy is generally applicable to a specific note to the financial statements, the policy is cross-referenced.

Ricardo UK Limited (the 'Company'), a private company limited by shares, is incorporated and domiciled in the United Kingdom and registered in England and Wales. The address of its registered office is: Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, England, United Kingdom, and its registered number is 02815682.

The Company provides engineering, technical and strategic consultancy services, and manufactures and assembles highquality prototypes and niche volumes of complex engine, transmission and vehicle products. The Company sells its products and services primarily to customers in the UK, Europe, Asia and North America.

(a) Basis of preparation

These financial statements were prepared in accordance with Financial Reporting Standard 101 *Reduced Disclosure Framework* ('FRS 101'). The principal accounting policies have been applied consistently to the years ended 30 June 2021 and 30 June 2022 and the recognition, measurement and disclosure requirements of UK-adopted international accounting standards have also been applied in conformity with the requirements of the Companies Act 2006, amended where necessary to comply with the Companies Act 2006, and set out below is where advantage of the FRS 101 disclosure exemptions has been taken.

- Paragraphs 45(b) and 46 to 52 of IFRS 2 *Share-based Payment* (disclosure of the number and weighted average exercise prices of share options and how the fair value of goods and services received was determined);
- IFRS 7 Financial Instruments: Disclosures,
- Paragraphs 91 to 99 of IFRS 13 *Fair Value Measurement* (disclosure of valuation techniques and inputs used for fair value measurement of assets and liabilities);
- Paragraphs 110 (second sentence), 113(a), 114, 115, 118, 119(a) to 119(c), 120 to 127 and 129 of IFRS 15 *Revenue from Contracts with Customers* (disclosure of the recognition, timing and disaggregation of revenue, detail and changes in significant judgements made, and assets recognised from the costs to obtain or fulfil a contract);
 - Paragraph 38 of IAS 1 Presentation of Financial Statements to present comparative information in respect of:
 - Paragraph 73(e) of IAS 16 Property, Plant and Equipment,
 - Paragraph 118(e) of IAS 38 Intangible Assets,
- The following paragraphs of IAS 1 *Presentation of Financial Statements*.
 - Paragraph 10(d) (presentation of a statement of cash flows);
 - Paragraph 16 (statement of compliance with all IFRS);
 - Paragraph 38A (requirement for a minimum of two primary statements, including statement of cash flows);
 - Paragraph 38B to 38D (additional comparative information);
 - Paragraph 40A to 40D (changes in accounting policy, retrospective restatement or reclassification);
 - Paragraph 111 (information on the statement of cash flows); and
 - Paragraph 134 to 136 (capital management disclosures);
- IAS 7 Statement of Cash Flows,
- Paragraphs 30 to 31 of IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors (disclosure of issued, revised or amended standards which are not yet effective and have not been adopted, including an assessment of the likely impact when adopted for the first time);
- Paragraph 17 (key management compensation), 18A (key management compensation provided by a management entity) and the requirements of IAS 24 *Related Party Disclosures* to disclose related party transactions entered into between two or more members of a Group, provided that any subsidiary which is party to the transaction is wholly-owned by such a member; and
- The following paragraphs of IAS 36 Impairment of Assets.
 - Paragraphs 130(f)(ii) to 130(f)(iii) (disclosure of basis for fair value less costs to sell for intangible assets);
 - Paragraphs 134(d) to 134(f) (disclosure of basis for determining recoverable amount for cash-generating units); and
 - Paragraphs 135(c) to 135(e) (disclosure of basis for goodwill allocation to multiple cash-generating units).

Notes to the financial statements (continued)

for the year ended 30 June 2022

1 Accounting policies (continued)

(a) Basis of preparation (continued)

Changes in accounting policies

The changes in accounting standards shown below are mandatory for the first time for the financial year ended 30 June 2022:

Amendments to existing standards effective for this financial year	Effective date (period commencing)	Endorsed by EU
IFRS 4 Insurance Contracts: Deferral of IFRS 9 Financial Instruments	1 Jan 2021	Yes
IFRS 9 Financial Instruments, IAS 39 Financial Instruments: Recognition and Measurement,		
IFRS 4 Insurance Contracts, IFRS 7 Financial Instruments: Disclosures and IFRS 16 Leases:	1 Jan 2021	Yes
Interest Rate Benchmark Reform – Phase 2		
IFRS 16 Leases: COVID-19 Related Rent Concessions beyond 30 June 2021	1 Apr 2021	Yes

None of these changes have had a material impact on these financial statements. Changes in accounting standards that are not yet effective have not been early adopted.

(b) Exemption from consolidation

The financial statements contain information about Ricardo UK Limited as an individual company and do not contain consolidated financial information as the parent of a group. The Company is exempt under section 400 of the Companies Act 2006 from the requirement to prepare consolidated financial statements as it and its subsidiary are included by way of full consolidation in the financial statements of its ultimate parent company, Ricardo plc, a company registered in England and Wales.

(c) Going concern

The Directors have undertaken an assessment of the ability of the Company to continue in operation and meet its liabilities as they fall due for at least one year from the date of approval of the financial statements. These financial statements have been prepared on a going concern basis which the Directors consider appropriate for the reasons set out below:

- The ultimate parent company has indicated that for a period of at least one year from the date of approval of these financial statements, Ricardo plc shall ensure that the Company has the financial support that it may require and does not intend to seek repayment of total loans payable to it and its subsidiaries of £15,793,000 at the reporting date. Ricardo plc also owed the Company loans receivable of £14,899,000 at the reporting date. As with any company placing reliance on other group entities for financial support, the Directors acknowledge that there can be no certainty that this support will continue, although at the date of approval of these financial statements, they have no reason to believe that it will not do so.
- The Company, as part of the Ricardo plc Group (the 'Group'), is a participant in a Group banking arrangement and meets its day-today working capital requirement from its own cash balances and the availability of the Group banking arrangements.
- The Directors have prepared cash flow forecasts which covers a period of at least 12 months from the date of approval of these financial statements. In this forecast, the Directors have considered the impact of known risks on the Company's results, operations and financial position in a severe but plausible downside scenario. These risks include the pace of technological change in the Automotive sector driven by climate change, which continues to rapidly shift away from the traditional internal combustion engine and towards more renewable propulsion methods. The downside scenario includes lower gross margins and higher costs to account for inflationary pressures and the removal of new or 'blue sky' revenue streams, together with the following key assumptions:
 - A 10% reduction in Automotive & Industrial revenue from established mobility solutions each year, together with a lower growth rate in revenue from emerging technologies;
 - Delays in the ramp-up of production volumes on key programmes in Performance Products, together with no revenue from new revenue streams in later years; and
 - An increase of 10 working capital days for the Company in the next two financial years.
- The modelled scenario incorporates mitigating actions which are within the control of the Company, such as non-payment of discretionary bonuses, a reduction in non-essential capital expenditure, and approving appropriate levels of dividends.
- The results showed that the Group would be able to continue operating well within its debt covenants and liquidity headroom under the downside scenario, even if discretionary bonuses were paid.

Following this assessment, the Directors are confident that the 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 financial statements and therefore have prepared the financial statements on a going concern basis.

Notes to the financial statements (continued)

for the year ended 30 June 2022

1 Accounting policies (continued)

(d) Management judgements and key accounting estimates

The preparation of financial statements under FRS 101 requires the Company's management to make judgements and estimates that affect the application of accounting policies and the reported amounts of assets, liabilities, revenues and costs. These judgements and estimates are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

Critical judgements in applying the Company's accounting policies

The following are the critical judgements, apart from those that involve estimations (on the following page), that the Directors have made in applying the accounting policies that have the most significant effect on the amounts recognised in the financial statements:

Revenue recognition on fixed price contracts - Note 2

The identification and separate accounting of distinct performance obligations within the context of a contract is considered to be a critical judgement. Fixed price contracts often have multiple performance obligations that are indistinct from one another within the context of the contract. This is due to a homogeneous pattern of transfer of control to the customer who is unable to benefit from the performance of less than all of the promises set out in the contract. This is particularly the case where any intellectual property created is stipulated as not being owned by the customer until the full transaction price has been paid. These judgements determine the timing of revenue recognition and recognition of contract assets. If performance obligations were identified on a different basis, revenue and contract assets may be materially reduced or increased.

Specific adjusting items: Reorganisation costs – Note 3

Reorganisation costs include expenditure incurred as part of fundamental restructuring activities, significant impairments and disposals of intangible assets, property, plant and equipment, and right-of-use assets, and other items deemed to be one-off in nature. These costs are presented within specific adjusting items in comprehensive income. The classification and presentation of these items require significant judgement to determine the nature and intention of the transaction.

Allocation of goodwill to cash-generating units – Note 10

Significant judgement is applied in order to allocate goodwill to cash-generating units ('CGUs'), or a group of CGUs, as a change in the allocation of goodwill would impact the result of the impairment review. As set out in Note 1(o), for the purpose of impairment testing goodwill is allocated to each of the CGUs, or groups of CGUs, that is expected to benefit from that business combination and at the lowest level at which goodwill is monitored for internal management purposes. If goodwill were allocated at a lower level, the results of impairment testing may be different.

Recoverability of capitalised development costs - Note 11

Judgement is required as to when development costs meet the criteria to be recognised as intangible assets. The majority of capitalised development costs relate to the development of technology, tools and processes. These costs are recognised as an asset once it has been determined that the attributable expenditure can be measured reliably, that there is an intention and the necessary resources to complete development and that it is considered probable that the resulting asset will generate future economic benefits for the Company. Determining whether it is probable that the resulting asset will generate sufficient economic benefits in the future requires management judgement.

Notes to the financial statements (continued)

for the year ended 30 June 2022

1 Accounting policies (continued)

(d) Management judgements and key accounting estimates (continued)

Key sources of estimation uncertainty

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods. The areas involving significant risk of a material adjustment to the carrying amounts of assets and liabilities within the next financial year are as follows:

Revenue recognition on fixed price contracts - Note 2

The majority of the Company's revenue in Automotive & Industrial is earned from contracts entered into for the provision of consultancy services that are typically awarded on a fixed price basis. A small number of similar contracts are also entered into by Performance Products to design and set up production lines and supply chains. Services provided under a fixed price contract generally have a single distinct performance obligation, or a single distinct series of performance obligations, which is satisfied over time. Revenue is recognised for each distinct performance obligation over time, based on an input method of total costs incurred to date as a percentage of total estimated costs to satisfy each performance obligation.

The percentage of completion basis of revenue recognition is determined as actual costs incurred as a proportion of forecast costs to complete. This method places importance on the accuracy of uncertain estimates, including costs to complete, the outcome of contract and technical risks, and the extent to which variation requests are recognised for proposed changes to the agreed schedule, price or scope of a contract under negotiation with a customer at the reporting date. Changes in these estimates may impact revenue recognised at the reporting date with the revenue in the reporting period appropriately adjusted as required.

The actual outcome of wholly or partially unsatisfied performance obligations may differ to the estimate made at a reporting date and it is reasonably possible that outcomes on these contracts within the next reporting period could differ, adversely or favourably, in aggregate to those estimated. It is not possible to fully quantify the expected impact of this, but the estimated costs to complete reflect management's best estimate at that point in time and no individual estimate is expected to have a materially different outcome.

Management undertakes a process to assess the risks on inception of all fixed price contracts, and 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.

At the reporting date, the number of live contracts within A&I was over 250 (2021: over 250), with a total value in excess of £200,000,000 (2021: in excess of £200,000,000). Of this portfolio, 6 contracts (2021: 6) were categorised as Red Category 4, with £851,000 (2021: £443,000) of revenue recognised for work performed, the recovery of which is subject to the outcome of commercial settlement or litigation. The possible financial outcomes range from an upside of £392,000 to a downside of £851,000.

Carrying amount of goodwill - Note 10

In performing the impairment assessment of the carrying amount of goodwill, the recoverable amount of CGUs, or groups of CGUs, to which goodwill has been allocated is determined by reference to its value in use ('VIU'), which is assessed by performing discounted future pre-tax cash flow calculations for three years and projected into perpetuity. Significant judgements are used to estimate the operating cash flows, growth rates and pre-tax discount rates applied in assessing the recoverable amount of each CGU, or group of CGUs. The sensitivity of carrying amounts to these assumptions is disclosed.

Goodwill: Inclusion of Research and Development Expenditure Credits – Note 10

The A&I CGU materially benefits from cash inflows relating to Research and Development Expenditure Credits ('RDEC'), which is an enhanced tax relief on qualifying R&D expenditure, and are included in VIU calculations as there is no indication that the UK Government will withdraw this benefit.

for the year ended 30 June 2022

1 Accounting policies (continued)

(e) Revenue – Note 2

Principle approach

The Company principally earns revenue through the provision of consultancy services and bespoke products, and recognises revenue based on the satisfaction of performance obligations in contracts with its customers. The core principle is that revenue is recognised in a manner that depicts the transfer of promised goods and services to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods and services.

A contract with a customer is considered to exist when the Company is in possession of documentation to provide an agreed scope of goods or services on mutually understood terms and conditions that are acceptable to the Company which, subject to the successful execution of the contract, is expected to be invoiced against and paid for by the customer.

Each contract with a customer is assessed to identify the promises to transfer distinct goods or services, or a series of distinct goods or services, that are substantially the same and have the same pattern of transfer to the customer. Goods and services are distinct and accounted for as separate performance obligations if they are separately identifiable in the contract and if the customer can benefit from them, either on their own or together with other readily available resources.

The total transaction price for a contract is estimated as the amount of consideration to which the Company expects to be entitled in exchange for transferring the promised goods or services to the customer, excluding sales taxes. Where multiple distinct performance obligations are identified within a contract with a customer, the total transaction price is allocated to each of the distinct performance obligations in proportion to their relative stand-alone selling prices. Given the bespoke nature of many of the Company's products and services, which are designed or manufactured under contract to the customer's individual scope and specifications, there are typically no observable stand-alone selling prices. Instead, stand-alone selling prices are typically estimated based on expected costs plus contract margin.

Costs of fulfilling performance obligations on existing contracts with customers are expensed as incurred. Costs incurred in advance of obtaining a new contract or an anticipated contract that directly relate to the fulfilment of specific performance obligations are initially recognised as an asset and subsequently expensed once the new contract is obtained or obtaining the contract is no longer anticipated. Costs incurred to obtain new contracts with customers are expensed when those costs are incurred irrespective of whether a contract is obtained from a customer.

Revenue is recognised as distinct performance obligations are satisfied, and as control of the goods or services is transferred to the customer. For each distinct performance obligation within a contract, the Company determines whether they are satisfied over time or at a point in time. Performance obligations are considered to be satisfied over time if the goods or services provided have no alternative use to the Company and there is an enforceable right to payment for performance completed to date, or the customer simultaneously receives and consumes the goods or services as the Company provides them.

Services provided under fixed price contracts

The majority of the Company's revenue in Automotive & Industrial is earned from contracts entered into for the provision of consultancy services that are typically awarded on a fixed price basis. A small number of similar contracts are also entered into by Performance Products to design and set up production lines and supply chains. Services provided under a fixed price contract generally have a single distinct performance obligation, or a single distinct series of performance obligations, which is satisfied over time. Revenue is recognised for each distinct performance obligation over time, based on an input method of total costs incurred to date as a percentage of total estimated costs to satisfy each performance obligation.

Revenue and attributable margin are calculated by reference to reliable estimates of transaction price and total expected costs, after making suitable allowances for technical and other risks. Revenue and associated margin are therefore recognised progressively as costs are incurred, and estimated costs to complete are updated regularly as anticipated risks are mitigated or unanticipated risks materialise. Management has determined that this method faithfully depicts the Company's performance in transferring control of the services to the customer.

for the year ended 30 June 2022

1 Accounting policies (continued)

(e) Revenue (continued) – Note 2

Services provided under fixed price contracts (continued)

The transaction price generally does not include consideration resulting from contract modifications of distinct performance obligations, such as variation orders, until they have been approved by the customer. Variable consideration, such as for the achievement of performance targets or variation requests under negotiation with the customer at the reporting date, can be included in the transaction price together with the estimated costs to perform the associated obligations. These estimates of the expected value or most likely amount are recognised to the extent that it is highly probable that there will not be a significant reversal in the amount of cumulative revenue recognised in a future reporting period.

Changes in transaction price from contract modifications that do not create separate distinct performance obligations are added to the transaction price of pre-existing performance obligations to which the modification relates. Contract modifications for goods or services that do create separate distinct performance obligations are accounted for separately from pre-existing performance obligations, together with the expected costs to satisfy those separate distinct performance obligations.

Contract assets arising from the recognition of revenue as and when performance obligations are satisfied are initially recognised as accrued revenue or amounts recoverable on contracts ('AROC') within trade, contract and other receivables, and transferred to trade receivables when invoiced. Contract liabilities arising from amounts received from customers for services not yet performed are initially recognised as deferred revenue or payments received in advance on contracts ('POA') within trade, contract and other payables, and transferred to revenue as and when performance obligations are satisfied.

A loss on a contract is recognised immediately when it becomes probable that the total estimated directly attributable costs to satisfy the contract will exceed the consideration receivable. Monthly reviews of contracts by local management, in conjunction with reviews by senior management of contracts deemed to be of higher risk, ensure that the Company identifies and immediately recognises expected losses on fixed price performance obligations within a contract.

Services provided under time and materials contracts

Certain contracts within Automotive & Industrial for the provision of consultancy services are awarded on a time and materials basis, and typically have a single distinct performance obligation to provide a variable amount of labour to the customer at an agreed set of time-based labour rates, which represents the sales value. Revenue is therefore recognised over time based upon the agreed sales value of the time worked and costs incurred to date, as the customer simultaneously receives and consumes these services as the Company provides them.

Supply of manufactured or assembled products

The majority of the Company's revenue in Performance Products is earned from the supply of manufactured or assembled high-performance products, some of which are supplied with assurance-type warranties. Revenue for the supply of these products is measured at the agreed transaction price per unit that is expected to flow to the Company, and is recognised at the point in time that the Company has transferred control of the products to the customer, which is typically on delivery or collection. The point in time at which revenue is recognised can vary based on the specific incoterms present in a contract with a customer.

Revenue recognised from bill-and-hold arrangements occurs when all performance obligations have been satisfied and there is a substantive reason for the arrangement, which is typically that the customer has requested the products to be held by the Company until such times as delivery or collection is required by the customer. Revenue is recognised and billed under usual payment terms when the customer formally agrees to accept control of the bespoke products which cannot be sold to another customer and provided that the products have been separately identified and made available for delivery or collection.

for the year ended 30 June 2022

1 Accounting policies (continued)

(f) Specific adjusting items – Note 3

Specific adjusting items are disclosed separately in the financial statements where it is necessary to do so to provide further understanding of the financial performance of the Company. These items comprise reorganisation costs and other items that are included due to their significance in amount or non-recurring nature. Reorganisation costs include costs arising from major restructuring activities, including significant impairments and disposals of intangible assets, property, plant and equipment and right-of-use assets.

(g) Research and development expenditure – Note 4

Research and development ('R&D') expenditure is recognised as an administrative expense in comprehensive income in the year in which it is incurred. The cost is recognised as a cost of sale where the activity is performed for customers. Directly attributable development costs that meet the criteria for recognition as an intangible asset are described in Note 1(p).

(h) Government grants – Note 4

The Company principally receives credits from the UK Government in respect of the Research and Development Expenditure Credit ('RDEC') scheme, which is a form of taxable government grant income that gives relief on qualifying research and development expenditure. The Company also receives income-related grants from various national and supranational government agencies for the funding of research and development expenditure and capital projects. In the prior year, the Company also received grants under the UK Government's Coronavirus Job Retention Scheme ('CJRS').

In accordance with IAS 20 *Accounting for Government Grants and Disclosure of Government Assistance*, when there is reasonable assurance that the Company will comply with its conditions and that the grant will be received, grant income is recognised in comprehensive income as other operating income and within trade, contract and other receivables as accrued revenue.

Government grants are not normally paid until after qualification conditions have been met and the related expenditure has been incurred and revenue recognised thereon. Where this is not the case, payments received for government grant income is recorded within trade, contract and other payables as deferred revenue.

Government grants contributing to the cost of an asset are also presented within trade, contract and other payables as deferred revenue and recognised in comprehensive income as other operating income on a basis that is consistent with the related depreciation of the associated non-current asset.

(i) Foreign currencies – Note 4

The functional and presentational currency is Pounds Sterling, which is the currency of the primary economic environment in which the Company operates. Transactions in currencies other than Pounds Sterling are recorded at prevailing exchange rates.

Monetary assets and liabilities denominated in foreign currencies are retranslated at the rates prevailing on the reporting date. Nonmonetary assets and liabilities denominated in foreign currencies are translated at the rates prevailing at the date when the transaction occurred. Gains and losses arising on retranslation and settlements are included in comprehensive income.

(j) Pension costs – Notes 5 and 6

The Company contributes to two pension schemes; a defined benefit and a defined contribution scheme, the assets of which are held in separately administered funds and operated by the ultimate parent company. Pension costs represent the expected cost of providing post-employment benefits over the year during which the Company benefits from the employees' services.

Ricardo plc, the sponsoring company for the defined benefit scheme, reviews the contributions required such that variations from cost are spread over the expected remaining working lifetime of its members after making allowances for further withdrawals.

Payments to defined contribution pension schemes are charged as an expense as they fall due. Differences between contributions payable in the year and contributions actually paid are included in either accruals or prepayments. The Company has no further payment obligations once the contributions have been paid.

Notes to the financial statements (continued)

for the year ended 30 June 2022

1 Accounting policies (continued)

(k) Share-based payments – Notes 5 and 6

Equity-settled share-based payments are measured at fair value at the date of grant by the ultimate parent company. The fair value determined at the grant date is expensed on a straight-line basis over the vesting period and recharged to the Company. The amount expensed is adjusted over the vesting period for changes in the estimate of the number of shares that will eventually vest, save for changes resulting from any market-related performance conditions.

Cash-settled share-based payments are measured at fair value at the date of grant by the ultimate parent company and recharged over the vesting period with the recognition of a corresponding liability in the ultimate parent company. The liability is remeasured to fair value at each reporting date up to and including the settlement date, with changes in fair value recharged to the Company and recognised in comprehensive income for the year. The amount recharged is adjusted over the vesting period for changes in the estimate of the number of shares that will eventually vest.

Fair value is measured by the ultimate parent company using the Monte Carlo and Black Scholes models. The expected life used in the models are adjusted for the effects of exercise restrictions and behavioural considerations.

(I) Net finance costs – Note 7

Finance income and costs are recognised in comprehensive income in the period incurred using the effective interest method.

(m) Income tax (credit)/expense – Note 8

The tax expense for the year comprises current and deferred tax. Tax is recognised in comprehensive income, except to the extent that it relates to items recognised directly in equity. The current tax charge is the expected tax payable on taxable income for the year, calculated using the average rate applicable on the basis of the tax laws enacted or substantively enacted at the reporting date, adjusted for any tax payable in respect of previous years. Deferred tax is recognised on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes.

The Company may provide for uncertain tax positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation and establish a provision on the basis of amounts expected to be paid to the relevant tax authorities.

Any provision for uncertain tax positions is included in current tax liabilities and would typically relate to risks associated with transfer pricing and unidentified permanent establishments in overseas jurisdictions. Any provision is based on experience of dealing with tax authorities in certain jurisdictions in which the Company operates and an estimate of the most likely outcomes in each relevant territory.

(n) Dividends – Note 9

Dividends are recognised as a liability in the year in which they are authorised. Interim dividends are recognised when paid.

(o) Goodwill – Note 10

Goodwill arises on the acquisition of trade and assets from subsidiaries and fellow Group undertakings and represents the excess of the consideration transferred over the fair value of the identifiable assets acquired and liabilities assumed. Goodwill is recognised as an asset and is carried at cost less accumulated impairment losses. It is not subject to amortisation, but is reviewed for impairment annually, or more frequently if events or changes in circumstances indicate a potential impairment.

The non-amortisation of goodwill conflicts with paragraph 22 of Schedule 1 to *The Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008* (SI 2008/410), which requires acquired goodwill to be written off over its useful economic life. As such, the non-amortisation of goodwill is a departure from the requirement of paragraph 22 of Schedule 1 to the Regulations, for the overriding purpose of giving a true and fair view. It is not possible to quantify the effect of the departure because the goodwill is deemed to have an indefinite useful life.

for the year ended 30 June 2022

1 Accounting policies (continued)

(o) Goodwill (continued) – Note 10

For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the cashgenerating units ('CGUs'), or groups of CGUs, that is expected to benefit from that business combination, and represents the lowest level at which goodwill is monitored for internal management purposes, and is not larger than an operating segment before aggregation.

When the Company changes the composition of its CGUs, it reallocates goodwill using a relative value approach at the date of the reorganisation, unless it can be demonstrated that some other method provides a better allocation of goodwill to the reorganised units.

The impairment review compares the carrying amount of the goodwill to the recoverable amount of the CGU, or group of CGUs, to which the goodwill has been allocated. The recoverable amount is the higher of the value in use or the fair value less costs of disposal. Estimating the value in use requires an assessment of the discounted future cash flows that the CGU, or group of CGUs, is able to generate.

An impairment is deemed to have occurred where the recoverable amount of a CGU, or group of CGUs, is less than the carrying amount of the allocated goodwill. Any impairment is recognised immediately in comprehensive income within specific adjusting items and is not subsequently reversed. On disposal of an operation, the attributable amount of goodwill is included in the determination of the gain or loss on disposal.

(p) Other intangible assets – Note 11

Purchased software is capitalised on the basis of the purchase price plus any costs subsequently incurred that are directly attributable to bring the software product to the condition necessary for it to be capable of operating in the manner intended.

Directly attributable costs which are incurred in the development of certain assets are capitalised and amortised over their finite useful lives once it has been determined that there is an intention and the necessary resources to complete the relevant project, that it is probable the resulting asset will generate economic benefits and the attributable expenditure can be reliably measured.

Amortisation is calculated using the straight-line method to allocate the cost of assets over their estimated useful lives, as follows:

- Software
 Between 3 and 5 years
- Development costs
 Between 3 and 5 years

Assets under construction are carried at cost less any impairment in value, and are included in the relevant asset category. Amortisation of these assets commences when they are available for their intended use or sale.

(q) Property, plant and equipment – Note 12

Property, plant and equipment is stated at historical cost less depreciation and gross of any grant income contributing to the cost of an asset. The cost of an item of property, plant and equipment is the purchase price and any costs directly attributable to bring the asset to the location and condition necessary for it to be capable of operating in the manner intended.

Depreciation is calculated using the straight-line method to allocate the cost of items of property, plant and equipment less any residual value, over their estimated useful lives, as follows:

Freehold land Not deprecia	ated
• Freehold buildings Between 25	and 50 years
Leasehold property Over the term	rm of the lease
Plant and machinery Between 5 a	and 25 years
• Fixtures, fittings and equipment Between 3 a	and 10 years

The residual values and useful lives of assets are reviewed at the end of each reporting period, and adjusted if appropriate.

Assets under construction are carried at cost less any impairment in value and are included in the relevant asset category. Depreciation of these assets commences when they are available for their intended use or sale.

Notes to the financial statements (continued)

for the year ended 30 June 2022

1 Accounting policies (continued)

(r) Right-of-use assets and lease liabilities – Note 13

Lessee accounting

Right-of-use assets are recognised for lease contracts that give rights to control their use for a finite period, and lease liabilities are recognised for any payments due in exchange for their use. Right-of-use assets are initially measured at cost, being the present value of lease payments, net of any incentives received from the lessor, plus any initial direct costs and restoration costs.

Right-of-use assets are depreciated on a straight-line basis from the commencement date of the lease to the earlier of the end of the asset's useful life or the end of the lease term. The lease term is the non-cancellable period of the lease plus any periods covered by renewal or extension options that are reasonably certain of being exercised. The lease term is assessed on inception of the lease and is reassessed when there is a significant event or change in circumstances. If right-of-use assets are considered to be impaired, the carrying amount is reduced accordingly.

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

Lease liabilities are subsequently recorded at amortised cost using the effective interest method and remeasured when there is a change in future lease payments arising from a change in an index or inflation rate, or if the assessment of the lease term changes. Any resulting impact on lease liabilities also has a corresponding impact on right-of-use assets.

Payments for short-term and low-value leases are charged to comprehensive income on a straight-line basis over the lease term.

Lessor accounting

The Company determines at inception of the lease whether the lease is a finance or operating lease. When a lease transfers substantially all the risks and rewards of ownership of the underlying asset then the lease is classified as a finance lease, otherwise the lease is classified as an operating lease. All subleased assets are classified as operating leases, where payments received, net of any incentives granted, are recognised in comprehensive income on a straight-line basis over the lease term.

(s) Investments – Note 14

Investments in subsidiaries are stated at cost less any impairment in value. The carrying amount of investments is evaluated at each reporting date to identify any indicators of impairment which could result in an inability to recover the carrying amount. If it is then determined that the carrying amount exceeds the recoverable amount, the excess is written-off to comprehensive income.

(t) Impairment of non-financial assets – Notes 10 to 14

Intangible assets that have an indefinite useful life or that are not available for use or sale are not subject to amortisation and are tested annually for impairment. Other intangible assets, items of property, plant and equipment and right-of-use assets with finite useful lives are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

An impairment loss is recognised for the amount by which the carrying amount of the asset exceeds its recoverable amount. The recoverable amount is the higher of the fair value less costs to sell of the asset and its value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted. Where assets do not generate cash flows independently from other assets, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs.

If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount. Prior impairments of non-financial assets are reviewed for possible reversal at each reporting date, other than goodwill.

for the year ended 30 June 2022

1 Accounting policies (continued)

(u) Inventories – Note 15

Inventories are stated at the lower of cost, including attributable overheads allocated on the basis of normal operating capacity, and net realisable value. Cost is calculated using the 'weighted average' method in Automotive & Industrial and the 'first-in, first-out' method in Performance Products.

(v) Trade, contract and other receivables – Note 16

Trade receivables are stated net of impairment and for the purposes of impairment testing includes contract assets of amounts recoverable on contracts ('AROC') and accrued revenue. These assets are assessed for impairment using the simplified approach to the expected credit loss ('ECL') model, which applies a default rate at the point of origination that increases as the unpaid asset ages. Although past experience of significant credit losses on these assets has been negligible, the impairment assessment considers both past experience and future expectations of credit losses. As a result of this assessment, the Company considers the risk of expected credit losses on contract assets to be immaterial.

To assess the ECL over the lifetime of the asset, a sufficiently homogenous historical provision matrix is used to inform a set of default rates which is adjusted for current and expected future economic conditions. It is considered appropriate to use one set of default rates as our customer base is also sufficiently homogenous and primarily comprised of large corporations.

Trade receivables and contract assets are provided in full and subsequently written off when there is no reasonable expectation of recovery. Indicators that there may be no reasonable expectation of recovery could include, amongst others, evidence that the customer has entered administration or liquidation proceedings, or the persistent failure of a customer to agree and adhere to a repayment plan.

The 'general approach' is applied to the impairment of other financial assets, the amount of which is based on whether there has been a significant deterioration in the credit risk of a financial asset.

(w) Borrowings – Note 17

Bank overdrafts are shown within borrowings in current liabilities and hire purchase liabilities are shown within borrowings in either current liabilities or non-current liabilities depending on the maturity date.

(x) Trade, contract and other payables – Note 18

Trade payables are not interest-bearing and are stated at their nominal value.

(y) Provisions – Note 19

Provisions for warranty costs are recognised at the date of sale of the relevant products, at the Directors' best estimate of the expenditure required to settle the Company's probable liability.

Provisions are required for restructuring costs when the Company has a present legal or constructive obligation at the reporting date as a result of a past event and it is probable that settlement will be required of an amount that can be reliably estimated.

Other provisions reflect the Directors' best estimate of future obligations relating to legal claims and litigation, together with dilapidation costs for the maintenance of leasehold properties arising from past events such as lease renewals or terminations.

These estimates are reviewed at the reporting date and updated as necessary.

(z) Deferred tax – Note 20

Deferred tax is recognised on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax liabilities are not recognised if they arise from the initial recognition of goodwill. Deferred tax is not accounted for if it arises from the initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit and differences relating to investments in subsidiaries to the extent that it is not probable that they will reverse in the foreseeable future. The amount of deferred tax provided is based on the expected manner of realisation or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantively enacted at the reporting date.

Deferred tax assets are recognised only to the extent that it is probable that taxable profits will be available in the foreseeable future against which the asset can be utilised. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realised within the foreseeable future.

for the year ended 30 June 2022

2 Revenue

Accounting policy – Note 1(e) | Critical judgement and Key source of estimation uncertainty – Note 1(d)

	2022	2021
Analysis by revenue stream	£′000	£′000
Services provided under fixed price contracts	67,070	64,705
Services provided under time and materials contracts	16,067	9,950
Goods supplied for manufactured or assembled products	68,970	61,469
Total	152,107	136,124
Analysis by customer location		
United Kingdom	82,693	75,335
Europe	36,018	38,426
Asia	25,510	18,156
North America	7,678	3,658
Rest of the World	208	549
Total	152,107	136,124

3 Specific adjusting items

Accounting policy – Note 1(f) Critical judgement – Note 1(d)

The current year charge of £15,155,000 comprised: £269,000 of net charges in A&I for UK redundancies focused primarily on senior roles due to merging three A&I businesses in Europe, the US and China; £2,020,000 of impairments of developed intangible assets in areas the new global A&I business is no longer strategically focused; £629,000 of prepaid cloud-based ERP implementation costs in PP primarily incurred in the prior year, were expensed in the current year due to an IFRS Interpretations Committee decision in March 2021; and goodwill impairments were also charged of £10,352,000 in A&I and £1,885,000 in PP.

The prior year comprised £3,011,000 of reorganisation costs for redundancies primarily due to the impact of COVID-19 on trading conditions, and provisions for impaired non-current assets, dilapidation and onerous costs from exiting the Cambridge Technical Centre.

These significant costs are presented as specific adjusting items as they would otherwise distort underlying trading performance.

4 Operating loss

Accounting policies – Notes 1(g), 1(h), and 1(i)

	nesialeu
2022	2021
£′000	£'000
12,237	-
2,251	2,418
30	292
2,020	-
4,142	4,022
-	186
446	559
-	152
5,839	5,970
38,862	37,547
539	497
900	216
199	962
269	2,139
4,000	1,638
(4,400)	(5,000)
-	(431)
(2,858)	(1,446)
(201)	(74)
208	163
	£'000 12,237 2,251 30 2,020 4,142 - 446 - 5,839 38,862 539 900 199 269 4,000 (4,400) - (2,858) (201)

(*) Prior year redundancy and termination costs were restated from £1,131,000 to include net charges from restructuring provisions.

2021

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for the year ended 30 June 2022

5 Directors' remuneration

Accounting policies – Notes 1(j) and 1(k)

	2022	2021
	£′000	£′000
Short-term employee benefits	708	634
Post-employment benefits	50	39
Share-based payments	79	29
Total	837	702

During the financial year retirement benefits were accruing to 4 Directors (2021: 4) in respect of money purchase pension schemes.

No Directors (2021: none) exercised share options during the year. During the financial year, 5,550 shares (2021: none) vested under the Ricardo plc Long-Term Incentive Plan ('LTIP') to 2 Directors (2021: none) and no shares (2021: 307) vested under the Ricardo plc Deferred Bonus Plan ('DBP') to any Directors (2021: 1).

The highest paid Director received short-term employee benefits of £244,000 (2021: £211,000), post-employment benefits of £17,000 (2021: £9,000), 3,330 shares vested under the LTIP scheme (2021: none) and no shares vested under the DBP scheme (2021: none). The accrued pension of the highest paid Director is £1,000 (2021: £1,000).

The emoluments of G A Ritchie, D J Shemmans and I J Gibson in the current year and the emoluments of D J Shemmans and I J Gibson in the prior year were paid by the ultimate parent company. The services of these Directors are deemed to be wholly attributable to the ultimate parent company. Accordingly, the amounts above do not include any emoluments in respect of these Directors.

6 Employee information

Accounting policies – Notes 1(j) and 1(k)

	2022	2021
Staff costs (including Executive Directors)	£′000	£′000
Wages and salaries (including redundancy and termination costs)	41,902	41,211
Social security costs	4,630	4,584
Post-employment benefits	4,910	5,087
Share-based payments	121	73
Total	51,563	50,955

The Company participates in a defined benefit scheme and a defined contribution scheme, the assets of which are held in separately administered funds. The cost of the Company's contributions to the defined contribution scheme in the financial year were £2,160,000 (2021: £2,337,000) and accrued contributions due at the reporting date were £186,000 (2021: £197,000).

The defined benefit pension scheme is the Ricardo Group Pension Fund ('RGPF'), which closed to future accrual on 28 February 2010. Annual contributions payable by the Group to the RGPF during the year ended 30 June 2022 were £2,975,000 (2021: £4,620,000) and £2,750,000 (2021: £2,750,000) of these contributions were recharged to the Company during the year.

The defined benefit scheme is recognised and operated by the ultimate parent company, Ricardo plc. The net defined benefit obligation is disclosed in Note 34 of its financial statements on page 211 of its *Annual Report & Accounts 2021/22*.

	2022	2021
Average monthly number of employees (including Executive Directors)	Number	Number
Management, administration and sales	169	215
Production and engineering	618	633
Total	787	848

for the year ended 30 June 2022

7 Net finance costs

Accounting policy – Note 1(l)

	2022	2021
Finance income	£'000	£′000
Interest receivable from fellow Group undertakings	311	423
Total finance income	311	423
Finance costs		
Interest payable to fellow Group undertakings	(609)	(707)
Interest payable on lease liabilities	(41)	(60)
Total finance costs	(650)	(767)
Net finance costs	(339)	(344)

8 Income tax (credit)/expense

Accounting policy – Note 1(m)

	2022	2021
	£'000	£′000
Current income tax:		
- UK corporation tax	(604)	(1,105)
- Adjustments in respect of prior years	155	(38)
- Total UK corporation tax	(449)	(1,143)
- Foreign withholding tax	(440)	386
Total current income tax	(889)	(757)
Deferred tax:		
- Charge for the year	530	58
- Adjustments in respect of prior years	(197)	(41)
- Effect of increased tax rate on opening balance	(32)	1,447
Total deferred tax (Note 20)	301	1,464
Total income tax (credit)/expense	(588)	707

Changes to the UK corporation tax rates were enacted on 22 July 2020 as part of the Finance Act 2020, which reversed the decision to reduce the main rate from 19% to 17% from 1 April 2020. The Finance Act 2021 was substantively enacted on 10 June 2021 and announced that the main UK corporation tax rate would increase from 19% to 25% with effect from 1 April 2023. As this rate change has not yet been enacted, deferred taxes at the reporting date have been measured and reflected in these financial statements at the substantively enacted corporation tax rate expected to apply to the reversal of the timing difference.

The income tax credit for the financial year is lower (2021: income tax expense was higher) than the standard effective rate of corporation tax in the UK of 19% (2021: 19%). The differences are explained below:

	2022	2021
	£'000	£′000
Loss before taxation	(11,821)	(2,340)
Loss multiplied by the standard rate of tax in the UK of 19% (2021: 19%)	(2,246)	(445)
Effects of:		
Expenses not deductible for tax purposes	2,326	(18)
Other permanent differences	(235)	(235)
Accelerated capital allowances	(161)	583
Tax provisions	-	(932)
Effect of tax rates in foreign jurisdictions	(324)	386
Differences in tax rates	94	1,447
Adjustments in respect of prior years	(42)	(79)
Total income tax (credit)/expense	(588)	707

Notes to the financial statements (continued)

for the year ended 30 June 2022

9 Dividends

Accounting policy – Note 1(n)

	2022	2021
	£'000	£'000
Interim dividend for the year ended 30 June 2022 of £Nil (2021: £Nil) per share	-	-
Equity dividends paid	-	-

The Directors have not proposed a final dividend for the year ended 30 June 2022 (2021: £Nil). On 11 November 2022, the Company paid an interim dividend of £5,000,000 (£0.50 per share).

10 Goodwill

Accounting policies – Notes 1(o) and 1(t)] | Critical judgement and Key source of estimation uncertainty – Note 1(d)

		£′000
Cost		
At 1 July 2021 and 30 June 2022		63,661
Impairment losses		
At 1 July 2021		2,248
Impairment loss		12,237
At 30 June 2022		14,485
Net book value		
At 30 June 2022		49,176
At 30 June 2021		61,413
Goodwill arose on the purchase of trade and assets and was allocated to cash-g	generating units ('CGUs') or gro	ups of CGUs:
Entity	CGU or CGU Group	Purchase date
Ricardo MTC Limited (dissolved on 11 August 2010)	Performance Products	28 March 2003
Ricardo Investments Limited (formerly Ricardo Consulting Engineers Limited)	Automotive & Industrial	28 March 2003
Ricardo Asia Limited (formerly Ricardo Tarragon Limited)	Automotive & Industrial	1 July 2005
Ricardo Strategic Consulting Limited (formerly Ricardo Vepro Limited)	Automotive & Industrial	1 May 2017

	2022	2021
Allocation of goodwill to CGUs or groups of CGUs	£′000	£′000
Automotive & Industrial ('A&I')	30,292	40,644
Performance Products ('PP')	18,884	20,769
At 30 June	49,176	61,413

For the purpose of impairment testing at the reporting date, the goodwill of each CGU or group of CGUs was compared to its recoverable amount, and this requires a calculation of its value in use, which is considered a major source of estimation uncertainty.

Key assumptions used in the calculations for value in use were assessed for sensitivity. The table below sets out reasonably possible adverse changes to those key assumptions, which would lower the value in use and increase the value of impairment:

	_	Key assumptions						
	Charged	Operating	Operating Working capital Pre-tax Long-term					
	(Note 3)	profit	requirement	discount rate	growth rate	Combined	RDEC	
Change	n/a	-10%	+10%	+2%	-2%	All	Excluded	
A&I impairment (£'000)	10,352	19,637	12,303	19,797	17,734	34,166	39,456	
PP impairment (£'000)	1,885	7,937	1,835	6,906	5,751	14,478	6,224	

Cash inflows from Research and Development Expenditure Credits ('RDEC') are included in the calculations of value in use on the basis that they are material and there is no indication that the UK Government intends to withdraw this benefit.

Notes to the financial statements (continued)

for the year ended 30 June 2022

11 Other intangible assets

Accounting policies – Note 1(p) and 1(t) | Critical judgement – Note 1(d)

		Development	
	Software	costs	Total
	£′000	£'000	£′000
Cost			
At 1 July 2021	4,921	16,449	21,370
Additions	53	1,964	2,017
Disposals	(1,139)	(10,396)	(11,535)
Reclassifications	27	(27)	-
At 30 June 2022	3,862	7,990	11,852
Accumulated amortisation			
At 1 July 2021	4,311	9,922	14,233
Charge for the year	184	2,067	2,251
Impairment charge	-	2,050	2,050
Disposals	(1,076)	(10,396)	(11,472)
Reclassifications	20	(20)	-
At 30 June 2022	3,439	3,623	7,062
Net book value			
At 30 June 2022	423	4,367	4,790
At 30 June 2021	610	6,527	7,137

Development costs relate to the Automotive & Industrial business and include hydrogen fuel cell and engine technology, electrified propulsion systems and motors, together with virtual tools and processes for the design, control, testing and calibration of propulsion and transmission systems.

The amortisation of £2,251,000 (2021: £2,710,000) is comprised of £522,000 (2021: £1,006,000) included within cost of sales and £1,729,000 (2021: £1,704,000) included within administrative expenses in comprehensive income.

The impairment charge of £2,050,000 (2021: £Nil) is comprised of £2,020,000 (2021: £Nil) included within specific adjusting items and £30,000 (2021: £Nil) included within administrative expenses in comprehensive income.

The carrying amount of assets under construction included in development costs amounts to £1,705,000 (2021: £790,000), which are not being amortised until the assets are made available for use or sale.

for the year ended 30 June 2022

12 Property, plant and equipment

Accounting policies – Note 1(q) and 1(t)

				Fixtures,	
	Freehold land	Leasehold	Plant and	fittings and	
	and buildings	property	machinery	equipment	Total
Cash	£′000	£′000	£′000	£'000	£′000
Cost					
At 1 July 2021	16,926	726	80,605	12,347	110,604
Additions	170	14	3,017	528	3,729
Disposals	(82)	-	(4,571)	(2,832)	(7,485)
Reclassifications	(10)	(82)	118	(26)	-
Intercompany transfers	-	-	(77)	(32)	(109)
At 30 June 2022	17,004	658	79,092	9,985	106,739
Accumulated depreciation					
At 1 July 2021	3,884	385	61,002	9,152	74,423
Charge for the year	330	30	3,052	730	4,142
Disposals	(82)	-	(4,571)	(2,832)	(7,485)
Reclassifications	35	(51)	(3)	19	-
Intercompany transfers	-	-	(24)	(22)	(46)
At 30 June 2022	4,167	364	59,456	7,047	71,034
Net book value					
At 30 June 2022	12,837	294	19,636	2,938	35,705
At 30 June 2021	13,042	341	19,603	3,195	36,181

The carrying amount of assets under construction included in property, plant and equipment amounts to $\pm 3,633,000$ (2021: $\pm 6,338,000$), which includes a hydrogen fuel cell and internal combustion engine testing facility within plant and machinery in Automotive & Industrial with a carrying amount of $\pm 2,270,000$ (2021: hybrid powertrain rig branded as the Electrified Propulsion Research Centre ('EPRC') with a carrying amount of $\pm 5,136,000$). Amortisation will commence in the next financial year when the asset is expected to be made available for use.

At the reporting date, the Company held plant and machinery within Performance Products under hire purchase and secured on the asset (see Note 17) with a carrying amount of £552,000 (2021: £632,000).

The Company had also placed contracts for future capital expenditure, which have not been provided for in the financial statements, amounting to $\pm 1,129,000$ (2021: $\pm 2,383,000$). Within Automotive & Industrial, $\pm 636,000$ (2021: $\pm 1,326,000$) related to the hydrogen fuel cell and internal combustion engine testing facility, and $\pm Nil$ (2021: $\pm 381,000$) related to the EPRC.

for the year ended 30 June 2022

13 Right-of-use assets and lease liabilities

Accounting policies – Note 1(r) and 1(t)

(a) Leasing activities as lessee

The Company leases various office premises and technical centres, vehicles, machinery, and other equipment.

Leases are negotiated on an individual basis and contain a range of different terms and conditions. The lease agreements do not impose any covenants. Leased assets may not be used as security for borrowing purposes.

Property lease terms range from 4 to 5 years, with an average of 4 years, and may have renewal or termination options. The impact of exercising these options is not considered reasonably certain at the reporting date.

Other lease terms range from 2 to 5 years, with an average of 3 years.

Where leases are short-term or for low-value items, the Company has elected not to recognise right-of-use assets and liabilities for these leases.

Information about leases for which the Company is a lessee is presented below:

(i) Right-of-use assets

			Fixtures,	
		Plant and	fittings and	
	Property	machinery	equipment	Total
	£′000	£′000	£′000	£′000
Cost				
At 1 July 2021	1,978	488	410	2,876
Additions	-	78	387	465
Remeasurements	-	(79)	(14)	(93)
Disposals	-	19	(8)	11
At 30 June 2022	1,978	506	775	3,259
Accumulated depreciation and impairment				
At 1 July 2021	1,771	231	152	2,154
Charge for the year	112	169	165	446
Disposals	-	(79)	(14)	(93)
At 30 June 2022	1,883	321	303	2,507
Net book value				
At 30 June 2022	95	185	472	752
At 30 June 2021	207	257	258	722

As a result of restructuring activities in the prior year, an impairment charge of £152,000 was recognised in respect of the decision to exit the Cambridge Technical Centre. This was recognised within administrative expenses and included in reorganisation costs within specific adjusting items (Note 3). The lease term was also reassessed as being limited to the non-cancellable period as it was no longer reasonably certain that the lease would be extended, resulting in a remeasurement to reduce both the right-of-use asset and lease liability (Note 13(aii)) by £1,973,000.

The expense for the year relating to leases not capitalised was £29,000 (2021: £11,000) for short-term leases, £1,000 (2021: £3,000) for low-value items and £Nil (2021: £7,000) for leases that were both short-term and for low-value items.

for the year ended 30 June 2022

13 Right-of-use assets and lease liabilities (continued)

(a) Leasing activities as lessee (continued)

(ii) Lease liabilities

Movement in lease liabilities	£′000
At 30 June 2021	1,196
Additions	464
Interest payable	33
Payments	(828)
Remeasurements	11
At 30 June 2022	876
Maturity of lease liabilities	£′000
Current – maturing within one year	467
Non-current – maturing after one year	409
At 30 June 2022	876

The incremental borrowing rates applied to lease liabilities recognised in the statement of financial position vary due to the asset type, its geographical location, and the lease term. The weighted averages are as follows:

- Property 3.8% (2021: 3.8%)
- Plant and machinery 1.6% (2021: 2.2%)
- Fixtures, fittings and equipment 2.1% (2021: 2.2%)

As at the prior year reporting date, potential undiscounted future cash outflows of £2,507,000 for a lease renewal option on the Cambridge Technical Centre was not included in lease liabilities because it was reasonably certain that it would not be exercised. The decision to not exercise this option was made in the current year and termination is effective from 31 July 2022.

(b) Leasing activities as sublessor

The Company has subleases in place with third parties for parts of its leased properties, which are classified as operating leases. During the year, the Company recognised rental income of $\pm 336,000$ (2021: $\pm 578,000$) relating to these subleases, of which $\pm 292,000$ (2021: $\pm 196,000$) was received from the ultimate parent company, with whom the sublessee has the lease contract for part of a leased property that the Company operates, and in the prior year $\pm 313,000$ was received on a rolling basis from sublessees whose lease contracts had expired and subsequently vacated the sites before the prior year reporting date.

In the prior year, the Company had a contractual right to undiscounted lease payments to be received in less than one year after the reporting date of £52,000 in respect of the Cambridge Technical Centre, but the sublessee subsequently entered into administration and effective from 31 July 2022, the Company terminated its headlease contract with the landlord.

14 Investments

Accounting policies – Note 1(s) and 1(t)	
	£′000
Cost	
1,000 (2021: 1,000) ordinary shares of £1 each	1
At 1 July 2021 and 30 June 2022	1

The investment represents 100% of the ordinary share capital of Ricardo Consulting Engineers Limited, a dormant company. The subsidiary is incorporated in the United Kingdom and the address of its registered office is: Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, England, United Kingdom.

The Directors are of the opinion that the carrying amount of the investment is supported by the underlying net assets of the subsidiary.

Notes to the financial statements (continued)

for the year ended 30 June 2022

15 Inventories

Accounting policy – Note 1(u)

2022	2021
£′000	£'000
10,966	8,997
4,202	4,251
1,176	1,746
16,344	14,994
	£'000 10,966 4,202 1,176

Included within cost of sales during the year are £38,862,000 (2021: £37,547,000) of inventories recognised as an expense and £539,000 of impairment charges (2021: £497,000) for obsolete inventories.

16 Trade, contract and other receivables

Accounting policy – Note 1(v)

		Restated*
	2022	2021
Current	£′000	£′000
Trade receivables	24,242	23,730
Less provision for impairment of trade receivables	(1,011)	(1,106)
Trade receivables – net	23,231	22,624
Contract assets:		
- Amounts recoverable on contracts ('AROC')	8,897	9,680
- Accrued revenue	328	517
Amounts owed by fellow Group undertakings	11,965	16,488
Prepayments	2,323	3,191
Other receivables	6,903	5,918
At 30 June	53,647	58,418
	2022	2021
Provision for impairment of trade receivables	£'000	£′000
At 1 July	1,106	897
Net impairment charges to comprehensive income	900	216
Amounts utilised	(995)	(7)
At 30 June	1,011	1,106

Amounts owed by fellow Group undertakings are unsecured, interest-free and due within the next financial year.

Included within prepayments are £586,000 (2021: £1,048,000) of costs incurred to fulfil specific performance obligations in advance of anticipated contracts from a customer, on which no revenue will be recognised until the contracts are obtained.

All amounts are due within one year.

Non-current

Amounts owed by fellow Group undertakings of £14,899,000 (2021: £10,000,000*) are unsecured, repayable on demand, with no fixed repayment date and bearing an interest rate of 2.5% (2021: 2.5%). These amounts are not expected to be settled within the next financial year.

(*) Prior year current amounts owed by fellow Group undertakings have been restated from £13,103,000 to reclassify £10,000,000 of intercompany loan receivables as non-current on the basis that at the date of approval of the financial statements they were not expected to be settled within one year of the reporting date, and to present amounts on a gross basis as there was no legal right to settle them on a net basis with amounts owed to fellow Group undertakings, as disclosed in Note 18. As a result of this restatement, total current trade, contract and other receivables have also been restated from £55,033,000.

Notes to the financial statements (continued)

for the year ended 30 June 2022

17 Borrowings

Accounting policy – Note 1(w)

	2022	2021
	£′000	£′000
Current borrowings:		
- Hire purchase liabilities maturing within one year	147	144
Total current borrowings	147	144
Non-current borrowings:		
- Hire purchase liabilities maturing after one year	138	286
Total non-current borrowings	138	286
At 30 June	285	430

The Company has a hire purchase liability in place for plant and machinery (see Note 12), which has an implicit interest rate of 2.4%. The future undiscounted minimum lease payments due within one year is £153,000 (2021: £153,000) and due after one year is £140,000 (2021: £293,000).

The Company shares its banking facilities with fellow UK subsidiaries of the Group which together have a net overdraft limit, but the balances are presented on a gross basis in the financial statements. Bank balances are presented as cash and cash equivalents, whereas bank overdrafts, if applicable, are presented as borrowings within current liabilities.

18 Trade, contract and other payables

Accounting policy – Note 1(x)

		Restated*
	2022	2021
Current	£′000	£′000
Trade payables	9,677	10,282
Contract liabilities:		
- Payments received in advance on contracts ('POA')	8,468	5,345
- Deferred revenue	678	2,098
Taxation and social security payable	3,055	3,256
Amounts owed to fellow Group undertakings	31,984	33,615
Accruals	4,176	4,351
Other payables	960	886
At 30 June	58,998	59,833

Amounts owed to fellow Group undertakings are unsecured and include £15,793,000 (2021: £17,848,000) being repayable on demand, with no fixed repayment date and bearing interest at rates between 2.5% and 3.0% (2021: 2.7% and 5.0%), with the remaining £16,191,000 (2021: £15,767,000*) due within the next financial year and being interest-free.

(*) Prior year amounts owed to fellow Group undertakings have been restated from £20,230,000 to present amounts on a gross basis as there was no legal right to settle them on a net basis with amounts owed by fellow Group undertakings, as disclosed in Note 16. As a result of this restatement, total current trade, contract and other payables have been restated from £46,448,000, and amounts owed to fellow Group undertakings due within the next financial year and being interest-free have also been restated from £2,382,000.

Non-current

Non-current trade, contract and other payables of £2,573,000 (2021: £1,521,000) relates to deferred government grant income which will be recognisable as other operating income beyond one year from the reporting date.

for the year ended 30 June 2022

19 Provisions

Accounting policy – Note 1(y)

At 30 June 2022	3,450	795	353	4,598
Released in the year	(392)	(384)	-	(776)
Utilised in the year	(1,471)	(1,116)	-	(2,587)
Charged to comprehensive income	1,919	653	153	2,725
At 1 July 2021	3,394	1,642	200	5,236
	£′000	£′000	£'000	£′000
	Warranty	Restructuring	Other	Total

Warranty

Warranty provisions reflect the Directors' best estimate of the cost required to fulfil the Company's assurance-type warranty obligations within a number of contracts. Subsequent to their initial recognition, warranty provisions are utilised or released over the periods of the various warranty obligations, which are expected to be less than five years.

Restructuring

Restructuring provisions of £648,000 (2021: £1,180,000) reflects the Directors' best estimate of amounts payable to employees who formed part of a plan for redundancies or had been notified prior to the reporting date. As set out in Note 3, in the current year this was part of a reorganisation that was focused on senior leadership and other roles due to a combination of three regional Automotive & Industrial businesses in Europe, the US and China, whereas in the prior year there was a wider redundancy plan primarily due to the impact of COVID-19 on trading conditions. The provision was largely utilised during the year, with further charges made and is expected to be utilised in less than one year.

The provision also includes £147,000 (2021: £462,000) for an onerous lease contract primarily relating to rent penalty payments required to terminate the lease, following the decision to exit the Cambridge Technical Centre as set out in further detail in Note 3. This element of the provision will be utilised by the termination of the lease of 31 July 2022.

Other

Other provisions comprise dilapidation and restoration costs of £353,000 (2021: £200,000) for the Cambridge Technical Centre. The provision represents the Directors' best estimate after negotiation of the obligations that arose from the termination of the lease agreement. The provision will be utilised by the termination of the lease of 31 July 2022.

	2022	2021
Analysis of total provisions	£′000	£'000
Current	3,461	3,729
Non-current	1,137	1,507
At 30 June	4,598	5,236

20 Deferred tax

Accounting policy – Note 1(z)

At 30 June	5,695	5,394
Tax losses	(988)	(760)
Other short-term timing differences	131	113
Accelerated capital allowances	6,552	6,041
Analysis of net deferred tax liabilities	£'000	£′000
	2022	2021
At 30 June 2022		5,695
Charged to comprehensive income (Note 8)		301
At 1 July 2021		5,394
Recognised net deferred tax liabilities		£'000

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21 Share capital

	2022	2021
Allotted, called-up and fully paid	£′000	£'000
10,000,000 (2021: 10,000,000) ordinary shares of £1 each	10,000	10,000
At 30 June	10,000	10,000

22 Contingent liabilities

In the ordinary course of business, the Company has £1,991,000 (2021: £4,844,000) of possible obligations for bonds, guarantees and counter-indemnities placed with our banking institutions primarily relating to performance under contracts with customers. These possible obligations are contingent on the outcome of uncertain future events which are considered unlikely to occur. The Company 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 Company's financial position or results.

The Company is a participant in a Group banking arrangement that is ultimately controlled by Ricardo plc. Under the terms of this arrangement, the Company is named as a guarantor of, and has access to, these facilities through its ultimate parent company, together with a number of other material fellow subsidiaries of the Group.

At the reporting date, the Group held total banking facilities of £216,805,000 (2021: £215,511,000), which included committed facilities of £200,000,000 (2021: £200,000,000) comprised of a multi-currency Revolving Credit Facility ('RCF') that provided the Group with committed funding through to July 2023. In addition, the Group has uncommitted facilities including overdrafts of £16,805,000 (2021: £15,511,000), which matured throughout this and the next financial year and are renewable annually.

At the reporting date, the Group held non-current bank loans comprised of committed facilities of £74,499,000 (2021: £75,804,000), net of direct issue costs, which were drawn primarily to fund acquisitions and for 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 (2021: 1.4% to 2.2% above LIBOR). At the reporting date, the Group has an adjusted leverage which attracts a rate of interest of SONIA plus 1.4% (2021: LIBOR plus 1.8%).

23 Controlling party

The ultimate parent company and the controlling party is Ricardo plc, which is the parent of the smallest and largest group to consolidate these financial statements. Copies of the Ricardo plc consolidated financial statements can be obtained from www.ricardo.com or the Group's Company Secretary, Ricardo plc, Shoreham Technical Centre, Shoreham-by-Sea, West Sussex, BN43 5FG, England, United Kingdom.

24 Events after the reporting date

As disclosed in Note 39 of its financial statements on page 217 of its *Annual Report & Accounts 2021/22*, on 2 August 2022 the Group completed a refinance of its banking facilities and entered into a new £150,000,000 committed multi-currency Revolving Credit Facility ('RCF'). The banking facilities were used to repay and cancel the previous committed RCF of £200,000,000 that was in place at the reporting date, as set out in Note 22. The RCF is committed for four years to August 2026 with an uncommitted option to extend for a further year and with an additional uncommitted £50,000,000 accordion. The interest rate of the facility ranges from 1.65% to 2.45% above SONIA and is dependent upon the Group's adjusted leverage. All other terms of the facility remain materially the same.

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25 Prior year restatements

The prior year Statement of Financial Position has been restated to present current intercompany receivables and payables on a gross basis, the impact of which was £13,385,000. Current Intercompany receivables of £10,000,000 were also restated as non-current as they relate to specific receivables for formal intercompany loan agreements that were not expected to be settled within one year of the reporting date.

The amount of the total liabilities caption in the prior year has been restated by $\pm 13,765,000$ to reflect the changes described above of $\pm 13,385,000$, and an arithmetical difference of $\pm 380,000$ in the prior year total. The $\pm 380,000$ difference did not impact any other financial statement line items.

The impact of these restatements is set out in the following extract of the Statement of Financial Position:

	Reported 2021 £'000	Restatement 2021 £'000	Restated 2021 £'000
Assets			
Non-current assets			
Other receivables	-	10,000	10,000
	105,454	10,000	115,454
Current assets			
Trade, contract and other receivables	55,033	3,385	58,418
	76,928	3,385	80,313
Total assets	182,382	13,385	195,767
Liabilities			
Current liabilities			
Trade, contract and other payables	(46,448)	(13,385)	(59,833)
	(51,413)	(13,385)	(64,798)
Net current assets	25,515	(10,000)	15,515
Total liabilities	(60,225)	(13,765)	(73,990)
Net assets	121,777	-	121,777